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INV. 1898.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

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Our New Citizens.

The House in passing the Senate bill allotting lands in severalty to the Indians has covered itself with credit. There was no opposition to the measure, and the only danger it incurred was that of being talked to death, as nearly every member had views on the Indian question. This bill goes a long way toward atoning for our errors and blunders in the past. It changes the whole attitude of this people toward the Government and furnishes a powerful incentive to civilization. Under the old system no Indian owned any land in particular; what rights and interests he had were merged in the tribe. The tribe owned the reservation. The Government dealt with the tribe and not with individuals. They were not responsible to the Territorial courts for violating the law. They paid no taxes. They had no votes. Even their persons and property were not secured and protected by the civil tribunals. In short, they were almost wholly outside the pale of civilization, and treaty compacts, big talks and pow-wows and assumed guardianship only tended to perpetuate the tribal instinct, and hereditary nomadic, savage, lawless habits.

Now all this will be changed. The bill as it now stands provides for the survey of the reservations and the allotment of the lands in severalty to the members of the tribe. To each head of a family, one-quarter section; to each single person over eighteen years, one eighth of a section; to each orphan under eighteen years, one-eighth of a section; and to all other persons under the age of eighteen now living, or who may be born prior to the date of the order of the Secretary of the Interior directing an allotment, one-sixteenth of a section. If the reservation does not contain land enough to go around on this basis, then it shall be allotted pro rata, and all lands unfit for agricultural purposes, only adapted to grazing, the allotments are doubled in quantity. All the rights and privileges of citizenship are conferred upon every Indian who has been made the recipient of such allotment, or who voluntarily adopts the habits of civilization. A precautionary clause prevents any conveyance of these allotted lands for the period of 25 years, a length of time, it is believed, to be sufficient to teach each Indian the value of their possessions and beget industrial habits. They are made subject to the State or Territorial laws as other citizens. It is believed, with these advantages and incentives connected with the existing educational privileges, the Indians will ultimately solve the problem which has so long been an "elephant" in legislation and vexed the white settlers.

Drawback on Grain Bags.—A dispatch from Washington states that Acting Secretary Fairchild has approved the recommendation made by the Collector of Customs at S. F., that manufacturers of grain bags entitled to drawback on bags exported be required to reimburse to the Government all expenses attending the ascertainment of the amount of drawback due.

Jack-Rabbits are as great a nuisance in Eastern Oregon as in portions of this State. So, according to an exchange, W. L. Geary & Co., of Ontario, propose to kill them off wholesale and ship them East. They have secured the low rate of $1 per hundred from the Union Pacific from Ontario to Chicago, and will consign a carload to a Chicago commission house by way of experiment. If the scheme succeeds, the firm writes that they can ship two carloads weekly, of 9000 rabbits per car, for the next three months. This will be a godsend to the poor of Eastern cities, who, for 25 cents, can have a big rabbit for dinner, and it ought to succeed. The firm pay hunters four cents apiece and ship in refrigerator cars.

Riverside is to have its first street-car line in a few days. The track is being laid and the cars are now en route from New York.

Agricultural Directors.—On the 28th ult., Gov. Stoneman made the following appointments of Directors of Agricultural Districts: District No. 9—S. F. Pine, vice S. S. Ricks, term expired; R. J. Bugbee, vice G. A. Dungan, term expired. District No. 2—James A. Louttit, vice self, term expired; R. C. Sargent, vice self, term expired. District No. 12—J. M. Mannon, vice B. B. Campbell, resigned; F. O. Townsend, vice P. J. Muir, term expired; Maurice Keating, vice R. F. Miles, term expired.

The new bridge across Bear river is a fine piece of work, and will be a decided convenience to the people of Yuba, Sutter and Placer counties. The work, however, was paid for by Yuba and Sutter counties. It is 901 feet in length and 18 feet wide. The spans are each 60 feet in length, and there are 15 of them.



A RAMBLE ON A SUNNY NEW YEAR'S MORNING IN CALIFORNIA.

A New Year's Outing.

California climate, universally kind, is perhaps kindest to the babies, and the jolly health of our youngsters is the admiration of tourists and the pride of parents. Even the city babies, who do not have the best California climate, nor a good chance to enjoy what they have, compare favorably with city babies the world over, and the health and rosiness of the rural and suburban children of California are becoming proverbial. With a little care in keeping them within doors while the heavy storms are on, and protecting the younger ones from the chill of damp mornings and evenings, the child can practically lead an out-of-door life in California, even during the months marked winter on the calendar. Contrast the picture on this page, which fairly represents such a ramble as the little ones might have with the milkmaid on New Year's morning in California, with any New Year's morning scene which could be drawn in the open air at the East, and one can easily assure himself of the blessing the California climate is to the children. Of course with our vast area and great altitudes we have some parts of the State where the snowshoe might be the symbol of winter sports, but over nine-tenths of the settled portions of the commonwealth the children have full opportunity for what are summer sports at the East. Baseball playing, hoop-trundling and marble games are standing winter avocations, and are diligently pursued except when the heavy rains drive the youngsters to the shelter of the home.

Pomology in Los Angeles.—The seventh quarterly meeting and fair of the Los Angeles County Pomological Society will be held at Spurgeon hall in Santa Ana, Jan. 6, 1887, at 10 A. M. The program, as arranged by the committee, includes an essay on the question, How to make an alfalfa patch of one acre and what may be expected from it, by W. Z. Cook; papers on Red Scale, by D. W. Coquillet; Raisin Grapes, by D. Edson Smith; and Apricot Culture, by J. B. Parker. After the reading of each essay by its author, five-minute speeches will be allowed members of the society in which to ask and answer questions on the subject. A lively time is anticipated.

Grape-Growers' Meeting.—Mr. E. H. Rixford, secretary, sends us the announcement that a regular meeting of the Grape-Growers' and Wine-Makers' Association of California will be held at the rooms of the Viticultural Commission, 204 Montgomery street, San Francisco, on Tuesday, January 4, 1887, at 11 o'clock. Prof. Hilgard will show the results of nine different modes of fermentation, with samples and with large diagrams, by which the facts can be readily shown to the eye. We believe that all vine-growers are invited to attend.

A farmer of San Joaquin county, has harvested 50,000 sacks of potatoes from 500 acres of land, and expects to realize $50,000.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Artisan Farmers.

EDITORS PRESS:—It has been frequently said, and currently believed, that a Jack-of-all-trades was master of none, and therefore rather under the ban of society.

In these modern days of machine work, there is but little use or employment in factories for master mechanics, except in the general management, when it is necessary for the superintendent to know almost everything about the work in hand, while the remaining employes are specialists and only expected to know a very few things concerning the work of the factory.

This kind of a mechanical education is of very little use outside the factory, and for this reason there are so many helpless persons seeking employment during the hard times, when the factories are closed.

A Jack-of-all-trades meets no such difficulty, as he can turn his hand to meet the situation, and is therefore more secure in a living than the ordinary mechanic of to-day.

A farmer that only knows how to plow, seed, and harvest his crop is greatly handicapped in his business, as his dependence on his fellowmen for everything else required in connection with farming will, perhaps, cost more in time and money, and through losses from ignorance in the use of his implements and machinery, than he can possibly make by his farming.

Such farming would become monotonous to any one, and it is not surprising that in time the young men on such farms will desire to leave. Besides, in this country the making of a crop of grain or hay requires but a small portion of the year's time, and unless there is something else to do, much time is not only wasted, but lazy and dissolute habits are formed that will wreck them effectually in a short time.

Mixed farming will, of course, occupy more of the farmer's time. Yet, not all, but every spare moment of a farmer's time could be utilized, if he has a good shop with a motive power in it, and with an assortment of good tools.

Rainy and broken day—long winter evening, can all be made profitable, with a good, comfortable, well-fitted shop, near the house, so that the good housewife, and her sons and daughters, may be as comfortable there as in the house. The children can be learning from the father the handicraft of the farm, and become interested in the various ingenious methods that may be adopted, in the absence of the right thing, to temporarily surmount a difficulty. These difficult questions arise constantly in the country, and will arouse all the ingenuity of the whole family at times.

The constant exercise of the brain in this direction, together with good facilities in the way of tools and material, would necessarily educate the farmer and his family gradually, until the boys at manhood would have a good, all-round, mechanical education, that would insure them a good living in any country.

The constant employment of the boys, in securing such an education, would make them contented and useful on the farm, and independent for life. They would become more valuable as citizens and parents, after an industrial life, than if allowed to roam about without anything to do much of their time.

With boys having a natural bent toward mechanics, there is nothing, perhaps, that would so agreeably engross their time and attention so profitably as a nice shop, with good tools and plenty of material.

A small library of books on mechanics would be of great advantage, and to start a shop with power a Jack-of-all-trades would be found very useful to give the business a good send-off. There are thousands of places on this coast where water-power can be had with a moderate investment, and there is no power more convenient, economical and valuable in all respects than water.

The great drawback to nearly all farmers' shops is the difficulty and labor in keeping the tools in order—and nothing will be remembered longer by the farmer's son than the drudgery of turning the grindstone. With a stone of good grit, well balanced and smooth and true on the face, attached to a water-power that any boy could manage, the work of keeping tools in order would be a pleasure, and the tools would be in order, and with those in good shape the use of them would be a pleasure also as well as being effectual.

Tools used by various persons on a farm will soon become dull, rusty and useless, and the hand labor required to keep them in order is so great that most persons will naturally get tired of trying to keep them in order, and for this reason shops without convenient motive power are likely to be abandoned.

Technical art training is growing rapidly in favor throughout the world, for the reason, no doubt, that a better knowledge of the mechanical arts, by persons generally, will assist them materially in making a living.

A man who should receive his education on a farm, having grown up thereon from his boyhood, properly surrounded with books, machinery and material, with a constant practice upon work that is necessary and useful, and having a real current value when done, would be more likely to turn out a complete mechanic than one who simply went through the forms of a technical school practice, wherein the article produced would have no practical value.

Technical art schools in mechanics would be very useful, and so is professional bookkeeping; but the scholar knows but little about real bookkeeping until he has had considerable practice in bookkeeping, connected with a real business house; and while I would not discourage technical schools for those not on farms, I certainly would prefer to educate the farmer's boy at home, in preference to sending him away from the farm to a city school, unless it would be for a short time only.

It is no credit to modern civilization that so large a proportion of the young men of our day should be so utterly unfit to battle with the world for a livelihood. There are no doubt millions of men in middle life now dependent upon the axe and shovel alone for a living, and yet seem contented with their lot so long as they can get such employment. "Their ignorance is bliss," but how can parents feel a pride in such sons? It is better to dig and shovel the earth than do nothing, but the man who has no higher ambition cannot claim to be of much importance or value in his citizenship.

I admit that a division of labor and the establishment of large factories for the manufacture of specialties in the farmer's line can do the work much cheaper than the farmer can himself, provided their time is valued equally; but when the farmer's time is valueless because he cannot utilize it all on his farm, then the farmer certainly has the advantage. But it is not altogether a question of present economy, by any means, as the constant employment on the farm of the whole family is conducive to habits of industry and good morals, and without these qualities the farmer's life would be a failure.

Artisan labor quickens intellectual ability in all directions, and will relieve the monotony of farm life to a degree that will make it interesting, simply by the exercise of a more intelligent brain. With the dull work, and in the interest of humanity, it is important that the rising generation should be taught to use their brains as well as hands. R. G. SNEATH.

Jersey Farm, San Bruno, Dec. 20, 1886.

Hillside and Valley.

EDITORS PRESS:—It is a great but very common mistake with many farmers on high and dry land to allow their crops to grow too thick. The blades or plants rob each other and all fail. Plant your crops at "magnificent distances," as is said of Washington City. Don't try to shade the ground; leave plenty of room to harrow and cultivate. Good seed is necessary for good crops, yet with poor conditions and cultivation, it is no better than poor seed.

Owners of poor, high land often wish for a fertile, moist valley. Now the true value of any and all kinds of produce should be determined by its nutritive qualities, or the amount it takes to support and improve animal life. Upon moving into the valley, I found by careful observation that my horse consumed over one-third more hay. Beets, tomatoes, etc., grew large and fine-looking, but lacked that rich, nutritive quality of higher land. It is not easy to compare the cereal crops, but probably the same differences exist. This may seem strange to some who always thought that wheat was wheat.

It would seem these considerations ought to reconcile the owner of the most high and barren land. But there is one point of far greater importance than these—the superior intellectual and moral progress attained by the use of higher and more refined food.

By means of fossil remains in different strata we trace back in geologic history (which, by the way is far more reliable than ancient written history) to the time of a swampy, steaming, fertile earth with a rank, coarse growth of vegetation, but no refined, nutritious or condensed seeds, grain or fruit. All animal life was then low, gross, reptilian organizations, with no active, high, intelligent forms. As the land became elevated through the lapse of ages, higher forms of vegetation were evolved. Then higher and more intelligent beings, including man, kept advancing with the more refined foods.

I heard a man the other day inquiring for cheat or chess for seed to sow on his low, wet land. This man will probably feed his cows, pigs and hens on cheat, and his family will eat the milk, eggs and pork. After awhile, when his children are going to school, he will wonder why they are not among the best and at the head of their classes. It is unfortunate for the progress of the human race that the commerce of the world requires the cities with dense population at low altitudes for the convenience of navigation.

Drainage, undoubtedly, taken in a wide view, is of far more importance than irrigation. There are, of course, difficulties to overcome; tiles sometimes clog and ditches fill in and are troublesome to cross. A very cheap, simple plan is to leave the dead furrow in the lowest place every year, and the ridge or double furrow nearer or farther away on either side, as may be necessary for a gradual slope. From my experience and deductions from science it is evident that drainage, in connection with railroads, is the most powerful lever to elevate the human race. Since writing the above I was greatly pleased to read your vigorous article last week on drainage, the importance of which it seems hard to make men realize.

C. P. SCRANTON.

Lower Lake, Lake Co., Dec. 20th.

Vaca and Adjacent Valleys.

EDITORS PRESS:—Thinking perhaps a short description of Vaca valley and the valleys adjoining it would be interesting to many of your numerous readers, I will give it the best I can.

Vacaville lies on the Vacaville & Clear Lake railroad, five miles from Elmira, which is 50 miles north of San Francisco. Vaca valley lies to the west and north of Vacaville, is from one to three miles wide, and about six miles long, and contains about 6000 acres, the most of which is set out to orchards and vineyards. It is bounded on the east and west by ranges of hills and mountains, a large part of which is cultivated.

Pleasant valley lies north of Vaca valley, and contains some of the finest orchards in Solano county. The Pioneer or Miller ranch, Thurber, Pleasants, Brink and Thissell ranches contain each from 200 to 400 acres of orchard and vineyard, and have for many years raised the first fruit that goes to San Francisco or is sent East, cherries excepted.

Putah Creek lies two miles further north and sends the earliest vegetables and canteloupes to the San Francisco market. South of Vaca valley lies Lagoon valley, which contains about 3000 acres, and probably 800 acres of orchard and vineyard. West of Lagoon valley lies a small valley where are the famous Bassford cherry orchards. The Bassfords have about 300 acres in trees and vines, about half of which is in cherry trees; the balance is in peaches, figs, pears, apricots, oranges and vines.

Apples are not generally regarded as a success in these valleys, except early varieties, of which enough are raised on the Miller ranch to supply the San Francisco market while they last. H. Bassford shipped some red Astrachans East last summer which brought good prices.

The water is generally good, and is found by boring from 10 to 35 feet. Oak wood is plenty at from three to six dollars per cord. There is almost any kind of soil that a man could want for trees or vines, but generally in the valleys it is a loamy, made soil, from 5 to 20 feet deep. Some of it is very wet in winter, but it can be drained. A good many tiles have been put in this fall. It is thought by many that the wet, heavy soil is the best for pears, but it takes them two or three years longer to bear.

Vines used to be put out 6 and 8 feet apart, but now the right distance is thought to be 10 and 12. Trees are set out 16x18 and 20 feet apart. Some put vines between the trees, but I think that is much like the man riding the horse and carrying the bag of meal on his shoulder to lighten the load for the animal.

The varieties of early grapes are Black June, Fontainebleau, White Chasselas and Madeline; then come Tokay, Muscat and Rose of Peru, with Cornichon and Emperor to wind up on. There are many other kinds of grapes raised here, but these are the main kinds. Not many raisins are made here, but a good many wine grapes are raised which bring good prices.

The principal pears are Bartlett and Winter Nelis. Bartlett pears, from some cause, probably on account of heat which stops the flow of sap, when from one-half to two-thirds grown, stop growing, and then come in after the pears from the Sacramento river and Suisun valley. [It is more probably owing to moisture conditions in the soil.—EDS. PRESS.] Peaches and apricots, however, ripen here before they do in other places. By coming in late the pears are much more valuable to ship East.

Berries have not been tried here very extensively, but are not likely to prove profitable to raise. Good judges say that not more than one-tenth of the fruit belt of California will raise good peaches, and not one-fourth of that will raise peaches like Vaca and Pleasant valleys. This is proved by the fact that the canners will always pay from one-half to two cents per pound more for peaches and apricots from here than from any other part of the State. The Benicia cannery made a contract, a few weeks since, for a large part of their fruit for the next five years in Vacaville. Mr. Groom, of Napa, was here last week trying to make the same kind of contract.

There is more rainfall in Vaca valley than north or south of there. The climate is generally pleasant. There is seldom enough fog here to hide the sun. Almost all kinds of trees that are raised in the State do well here, including oranges, lemons, persimmons and olives.

It must not be thought that it is all profit and pleasure raising fruit here. Last year many trees died from some unknown cause. There are some vineyards in which the phylloxera has a very large hold, and we have quite a sprinkling of scale bugs and other fruit pests which the owners of orchards are fighting the best they know how.

There are three driers in the vicinity of Vacaville and several small canneries. J. Gates has one with which he can put up from 80 to 100 dozen per day. Messrs. Bassford, Blake, Pleasants and Thissell have each a cannery.

Land set out to trees and vines is worth from $100 to $600 per acre. Many of the farms contain only from 15 to 30 acres; some from 200 to 400, but not many are large farms. Help is always plenty, except once in awhile in fruit-picking time. The greatest drawback here is the employment of Chinese. Some prefer white labor and will hire no other. Probably the labor question will be righted in time. The wages paid are from $1.50 to $2 per day, or $50 and $60 per month, a man boarding himself, or $1 per day and $25 to $30 per month. G.

THE FIELD.

Distribution of Seeds and Plants.

University Experiment Station, Bulletin No. 61.

Owing to the lateness of the season it is deemed advisable to combine this year the distribution of seeds and that of plants, which have for the last two years been made by separate announcements. We have retained in the lists some growths which have done well on the University Experimental Grounds, and have been given good reports by those to whom we have sent them for trial, in order that the experiments might be still more widely extended to secure a wider knowledge of the adaptation of the plants to California conditions. A number of new growths are offered this year which have set up a claim to value in this State. As has been described in previous bulletins, this distribution is made for the purpose of ascertaining the adaptation and practical value of the several kinds, in the different climates and soils of the State; and persons receiving them are requested to report results, whether success or failure, and if the latter, from what apparent causes.

Terms.—As there is no appropriation available to meet the expenses of packing and postage, applicants are requested to send the amounts specified in connection with each description below. If they desire seeds sent by express, applicants need not send the amounts specified for postage, *but all orders for seeds by express* must be accompanied by a remittance of 10 cents to pay for packing. Applications may be made for one or more kinds of seeds. In case any kind of seed becomes exhausted, the money sent will be returned unless a second choice is mentioned by the sender.

Plants will be forwarded by express (unless specially otherwise requested), in lots consisting of the number hereinafter mentioned for each kind, on remittance of 25 cents for each lot of plants and 10 cents additional for each additional lot to pay expenses of packing, etc. Postal notes, payable at the Berkeley postoffice, are requested to be sent in lieu of stamps whenever practicable. Any surplus left after filling orders as far as possible will be returned to the senders, deducting letter postage.

Wheats Resisting the Hessian Fly.

The distribution of cereals this year is restricted to three varieties of wheat, which proved resistant to the attack of the Hessian fly (*Cecidomyia destructor*) in our experiments during the past season. An outline of these experiments was given in Bulletin No. 58 of the University Experiment Station, and a full report will be found in the forthcoming report of the College of Agriculture for 1886. Out of 100 varieties of wheat sown there were but six in which no trace of the fly was found, and of these we have sufficient seed of three varieties for distribution. It is desired to send these wheats only to the localities where the fly is known to exist, because we want the experience of experimenters in other infested localities to compare with our own observations. The varieties offered are "Volo," "Bearded Missoyen" and "Greek Atlanti." These wheats all have solid stems, the straw being filled with pith. They all belong to the *hard* wheat type (*Triticum durum*), having rather long-pointed grains, almost translucent, and a horny consistency, owing to their richness in gluten, though when grown in this State they rapidly change in this respect and become starchy. These wheats are chiefly grown in the countries bordering upon the Mediterranean and the Black seas. They do not succeed in the north of Europe, nor are they of much account even in the middle of France. They are, however, quite hardy and productive in California, and with the change in their character noted above, promise to be of considerable value. Samples of the grain were submitted to experts in milling and shipping wheats and pronounced good, merchantable wheat, and salable in the market at about two and one-half cents per cental less than No. 1 shipping wheat. As they are naturally of strong growth and productive, it is expected that they will be found valuable in those localities where other varieties are rendered unprofitable because of the Hessian fly. Applicants will each be furnished with one pound of each of the three varieties, or a single pound of either variety. Send 20 cents for each pound ordered, if to be sent by mail.

Textile Plants.

The progress which inventors seem to be making in devices for extracting the fiber from various textile plants promises to make such growths profitable in this State. While we do not, of course, guarantee the success of the machines which are now becoming prominent, nor promise that a market is yet open for the sale of crops which will yield fiber, we deem the outlook favorable enough to warrant general experiment with the plants to ascertain the adaptability of certain localities of the State to them, so that those who may in the future deem such crops worthy their attention may have full data of their growth and probable yield. It is probably generally understood that the secret of profit in these crops lies in the solution of the problem of extracting the fiber by mechanical means so that the product may profitably compete with that produced by the cheap labor of Asia and Europe. For ramie fiber there is a steady demand by the English manufacturers if

the fiber is extracted to suit their wants. For flax fiber, we are assured by local manufacturers that there will be a demand here for all the properly prepared fiber, as only the lack of the material prevents a large local manufacture of twines, etc.

Ramie.—We have grown from imported seed a stock of plants of *Boehmeria candicans* which is, however, said by experts to be inferior to the *Boehmeria tenacissima*, although the fiber of the *candicans* is of value in making coarser fabrics. The tests of this species will probably serve to determine the conditions favorable or otherwise for the growth of the other. Most satisfactory results have been reported with plants sent to growers in the upper San Joaquin valley, and experience generally seems to indicate successful growth of the plant in a great variety of soils and climates. Ten small plants will be sent to each applicant; 25 cents per lot.

Fiber Flax.—We have gathered a good quantity of seed of four European varieties of flax (*Linum usitatissimum*) which are grown on the continent especially for their fiber. They grow about three times as tall as the variety commonly grown in this State for the seed. When sown in February in Berkeley, a good growth has always been attained without irrigation, and fair results have been secured by sowing as late as April. The following varieties are offered in 1-lb. sacks; 20 cents each if forwarded by mail: "White Flowering," from France; "Royal," from Germany; "Russian," from Pskoff; and "Yellow Seeded."

Esparto Grass.—Stipa tenacissima, the grass so extensively used in the Mediterranean countries for cordage, baskets, etc., and lately exported in large quantities as a material for paper-making. It grows naturally on sandy beaches, within reach of salt water, but will doubtless be found adapted to many saline and alkaline lands now unreclaimed or occupied by the common tule. It should be thoroughly tested in sandy coast lands southward of the bay, and in South California. Ten plants to each lot; 25c. per lot by express.

New Zealand Flax, so useful to gardeners and vineyardists for the purpose of tying with the ribbons into which the leaves readily split, and which are exceedingly strong, is again offered for distribution. Reports received from the interior of the State point strongly to the conclusion that the plant is unadapted to the hot interior valleys. From all coast regions the reports are good. Although fond of moisture, it is not a marsh plant and will not succeed in a swamp. Two plants to the lot; 25c. per lot by express.

Forage Plants.

The forthcoming report of the College of Agriculture for 1886 will contain a detailed account of the results attained with a number of plants sent out for trial to different parts of the State. The following are offered for further trial:

Schrader's Brome Grass (*Bromus Schraderii* or *unioloides*): Valued in Australia as resisting drought, and in Texas as giving good feed in winter and early spring. We have received reports from many in this State to whom we sent seeds two years ago, declaring the grass a success. It is among the first grasses to start, grows vigorously, and matures an abundance of heavy seeds almost like oats. Its seed stems being two or three feet high, and leafy, it can be used for either hay or pasture. Four-ounce packages by mail, 5c. each.

Milium multiflorum: A perennial millet grass, growing about two feet high with seed stems two feet higher. It is a plant of slow development, but strong. Owing to the fineness of the seed, it should be planted very carefully and covered lightly. It should not be pastured the first year, as it is easily pulled up by the roots. After being well established, if grazed down, there is an abundant growth of fine leaves, which resist winter frosts to a remarkable degree. We have had favorable reports from the plants from different parts of the State, although some experimenters have complained of its failure. This is perhaps owing to the fact that it is hard to start, and because the season was unfavorable. Two-ounce packages by mail, 3c. each.

Japan Clover (*Lespedeza striata*), a plant which is highly commended for drouth-resisting properties in some of the Southern States. We have but a small quantity of seed, which will be sent in 1-oz. packages; by mail, two cents each

Various Trees.

Kikar.—We have grown from seed imported from India a few hundred plants of the Kikar or gum-arabic (*Acacia Arabica*). This tree is reported by the Director of the Department of Agriculture, at Cawnpore, India, as "unable to withstand frost; will do well on heavy soil, and thrives even on gravelly land. The gum has commercial value and the wood is used in making handles of tools and heavy wagons. The trees should be planted 40 feet apart, or afterward thinned out to that distance." This tree should be tried in the thermal belts and milder parts of the State. Lots of five trees will be sent to each applicant; 25 cents per lot by express.

Black Wattle (*Acacia decurrens*).—Reports of trees sent out in previous years are very favorable. The black wattle is shown to be fully adapted to the coast region of the State from San Francisco southward, and even in many interior points. It promises to be of much value for fuel, as well as the source of bark for tanning. The tree is a rapid grower, and the bark is usually stripped in its eighth to tenth year, when the tree is 30 to 40 feet high. Does well on heavy as well as on light soils, provided they are deep. We send seed in two-oz. packages, five cents each by mail. A few young trees can be furnished in lots of five to each applicant; 25 cents per lot by express.

The seed of the black wattle is hard to start, and may lie dormant a long period. We insert the method which Mr. K. McLennan, foreman of the University Agricultural Grounds, finds to yield good results with seed of the black wattle and with other hard leguminous seeds, like the various species of acacia, the carob, locust, etc. :

Prepare the beds or boxes and fill with nice sandy loam. Tie the seeds in a piece of cloth or a little bag and put them into a can of boiling water. Examine them often, and when they become soft and swollen they should be taken out and sown immediately, covering the seeds up, if in boxes, one-fourth of an inch; in outside beds three-eighths of an inch. Care should be taken not to allow the seeds to become dry during germination. If they are exposed to the winter rains, cover lightly with straw; remove the straw when they are well sprouted. After the seedlings are furnished with the first or second set of leaves they should be thinned and transplanted at a distance of three inches apart. This gives a chance to cut them out separately and leaving a little ball of earth to each whenever it is desirable to plant them out in their permanent places.

Olives.—We have a small number of olive trees of the "Nevadillo," a medium-sized olive of oval shape, rivening very early, and the Manzanillo, a rather large olive of more rounded shape, also of early maturity. These varieties were secured through Mr. Pohndorf's importation. We can send one tree of each variety to each applicant; 25 cents for each pair by express.

Guavas.—A limited distribution can also be made of three guavas, *Psidium pomiferum*, *P. Cattleyanum* and *P. aromaticum*. The first named is the "pear-shaped guava" which we have sent out before and which is reported as doing very well in sheltered places in Southern California, and a desirable fruit. The second is the more hardy "strawberry guava," and which promises to succeed wherever the orange thrives. The third is a species from Guiana. As the adaptation of the varieties is quite well defined we will select according to location of applicant; three plants to each 25 cents per lot by express.

Miscellaneous.

Insect Powder Plants.—As there seems a continued desire for small packets of these seeds for trial, we still offer *Pyrethrum cinerariæfolium* and *P. roseum*, the Dalmatian and Persian insect powder plants. The former is the one most to be recommended as an insecticide, while the latter is quite ornamental, having flowers resembling single chrysanthemums, of four or five different colors. The seed should be sown in boxes in light, porous soil, and kept shaded, but in a warm place and moist. Under favorable circumstances the seed will germinate in two or three weeks, and the plants, when of sufficient size to be handled, should be set out like cabbage plants. We can furnish the seed in one-oz. packages, two cents.

Quinoa: Chenopodium quinoa.—Of this plant we have two varieties, the seed of one from Germany and the other from Peru. The seed is a common article of food in the high plateau and mountain districts of Chile and Peru. Unfortunately it is grievously infested by the leaf-mining larva of a fly which interferes with its prospects in this region at least. We would like to have it tried in other parts of the State to determine its growth and value. Seed will be sent in two-oz. packages, five cents each by mail.

Bamboos.—A number of varieties of bamboo are now attainable in quantities to suit from nurserymen and importers. We have a collection of varieties which are growing well in the Garden of Economic Plants, but we have only the *Arundinaria falcata* for distribution. A few can be furnished single plants of this species; 25 cents each by express.

Kaffir Corn.—A variety of dhoura, or Egyptian corn, introduced by Dr. J. H. Watkins, of Palmetto, Georgia. It differs from the "Egyptian corn" grown in this State in bearing upright heads and in somewhat different characteristics of growth, as will be described in the forthcoming report of the College of Agriculture. The grain much resembles the White variety grown in this State. The plant has matured seed in Berkeley, which the Sorghum family does not usually do; the grain is, however, much inferior to that which may be expected in the interior of the State. We would like to have this variety tried by those who are growing Egyptian corn profitably. Seed will be sent in 2-oz. packages; 5 cents each by mail.

A bulletin announcing a distribution of cutting scions, etc., will be made next week. All applications should be addressed to

E. W. HILGARD,
December 23, 1886. Berkeley, Cal.

PHOTOGRAPHING CANNON-BALLS.—It is well known that cannon-balls have been most successfully photographed when on their flight from the cannon's mouth, but it seems that quite recently such photographs have been obtained, many of which show, in a remarkable manner, the head of condensed air which precedes the shot. It is this head of condensed air which makes it almost impossible, even for the most skillful rifleman, to hit an egg-shell suspended by a longish thread; and doubtless it is this "head" of condensed air which first wounds when an animal is hit by a rifle shot.

POULTRY YARD.

Food for Thought on Several Topics.

EDITORS PRESS:—As I go about from place to place, I enjoy (sometimes) seeing how others do business that are in the same line of work as myself.

Some one might ask the question just here, Well, what do you see, and how are people generally doing business? Were I to answer in two words for the whole list, they would be *very poor*, but to stop right there would be but to cast scandal upon a noble few who are doing a grand work in the poultry world, and should have credit for it.

Why is this thus? Are there good reasons for the present condition of things? I would answer no, for in the first place there is no overproduction in this country either of fowls or eggs; if there was, why is it that there are annually shipped into this country millions of dozens of eggs and many thousands of pounds of dressed poultry? Poultry and eggs are things in the provision line which this country fails each year to fill its home demand, while in almost if not quite every other line they have enough and a surplus to export.

It appears to me that too few of our farmers are posted, or, if posted, fail to realize the magnitude of this part of the farm, and the result in dollars that they might put in their pockets year by year were they to give it their careful attention.

Others seem to have chickens about the place, but are so careless and shiftless with them that it is a wonder that they have chickens left to their names. Don't think for a moment that it pays any better dividends in the poultry business than any other to be shiftless and careless, for it does require good judgment, thrift, good stock, care and a moderate capital to meet with success.

Now let me tell a secret of the business, and I *know* it will prove itself by trying. Commence with full-blooded stock, or if already in business, with mongrel stock, then get rid of them as soon as possible, and stock up with full-bloods, for in poultry, as with beef or milk cows, horses, or sheep, the full-blooded stock is far more profitable than the scrub, and it costs no more, and oftentimes less, to keep the full-blood than the scrub, and a man will take a vast amount of pride and good solid pleasure in a flock of full-blooded hens, while he will feel that scrub stock is of no account. I have tried both and know just how it works.

I find that some folks think that scrub stock half cared for, or not cared for at all, will fill the egg basket, and because they don't, out they go from the chicken business, with no good opinion of it and many hard words against it. Well! no wonder; what business would be a success in their hands under the same treatment?

I think too many have the idea that it is a business that can be picked up by any one on short notice, and run on a large or small scale, according to taste; that there is little or nothing to learn, and that there is a mint of money in it. Well, there is a mint of money in it, sure, but he who would get the money must either drive or hold the plow, in other words, commence with a few fowls and learn the business, and advance in numbers as you learn the care required for them, and by all means do not be afraid to take off the coat and work among the fowls.

Don't be afraid to feed your own mind in regard to all matters relating to the poultry yard. Much can well be learned by practical work in the yard, and great help can be found among the many poultry papers and books of the present day. Of the latter, "Poultry Culture," by I. K. Felch, is a book costing $1.50 and is as well worth the money as any book I know of, as it covers about the whole field, and is written by a man who has a fine reputation as a breeder, and has over 30 years' experience. There are other books at less price and covering less ground, and on special subjects, in price from 25 cents to $12.

As to papers, aside from the RURAL PRESS, there are many, and can be had from 50 cents to $1.50 per year. Perhaps the best cheap paper is the *Poultry Keeper*, of Parkesburg, Pa., 50 cents a year; it comes monthly and is full of life and information, and has about 100,000 readers, which speaks well for it. There are others of merit, but they cost $1 or more a year.

Now I am not advertising this book and paper, but am just speaking a word for what I believe to be honest worth, and to help those who are in search of honest, reliable information.

Don't expect to be an expert in the poultry business at once, it will take time, but there is reason to believe you can be if you try.

As I look back over the years I have been in the business, I can see a marked advance for the better; a better quality of stock is wanted and more of it; breeders who have good stock and deal square have plenty of business; the signs of the times are good. Cleanliness, watchfulness and *care* are magic words, and speak much for success in the poultry world, and he or she who cannot apply them had better stay forever out of the business.

"Read, see and think," "live and learn," are mottoes worth following. Strive for the top round of the ladder. E. C. CLAPP.

South Pasadena, Cal.

ARBORICULTURE.

The French Walnut Varieties.

EDITORS PRESS:—I wish to add something to corroborate the statements made by Mr. Felix Gillet in the RURAL PRESS in regard to the French walnuts; they have proved so satisfactory on my place that I feel bound to recommend them to all who wish to plant nut trees, either for home use or for crop.

After growing the Los Angeles seedlings for many years without any remuneration for my trouble, and having the French varieties prove so fertile, I feel that the problem is solved and that only the latter should be planted in the northern portion of the State.

A history of my French varieties may be instructive. They were imported from Fransom Bros., Orleans, France, in 1874. I received a few dozen grafted trees of the following kinds: the Præparturiens, A Bijou, and Serrotina; afterward the Mayette and Cheberte. They have all fruited, and I am able to judge of their value. The Præparturiens was, of course, the first to have fruit, and there are in our county several trees, grown from seed that was produced on my place, that have borne crops of nice, well-flavored nuts; they were exhibited at a meeting of the Horticultural Society last fall and pronounced excellent.

The A Bijou is a large nut, the largest known; it produces a moderate crop of well-flavored nuts. The Serrotina is late in coming out in the spring, and will be valuable for that reason; it is an abundant bearer. The Cheberte and Mayette are both valuable to grow for their nuts. All these kinds have proved to be hardy, productive, and well-flavored.

Experience has taught us that the Los Angeles seedling is a very unreliable tree, only giving fruit under the most favorable circumstances in Northern California; it grows very thrifty when young, but does not ripen its wood sufficiently to withstand the severe winters that we sometimes have, and if, by chance, a series of mild seasons follow the planting, and the tree attain a good size, it is unfruitful, and seldom pays for the room it occupies.

Now, the French varieties are entirely different. They are fertile from the first of their life. I have seen a tree of the Præparturiens, three years old, showing female blossoms, and where they can be impregnated by the male catkins of older trees they will mature nuts. I have gathered nuts from a tree scarcely four feet high. Their growth is slow and the wood ripens fully. I have never lost an inch of wood from any frost that has occurred since they were planted, while the Los Angeles trees, near them, have been cut to the ground many times. As to the quality of the nut, there can be no difference of opinion—the French nuts are decidedly superior, the shell is thinner and the meat is very sweet and rich, with none of the bitter skin which always accompanies the Los Angeles kind.

To those who are planting a home orchard I would say plant at least a half of a dozen of these early-bearing nuts for the children. Nothing will pay better.

To those who have a deep, rich, moist soil, and wish to plant for profit, I would recommend these nuts. They are not hard to grow, the crop is easily gathered, and, if properly planted and attended, will pay well. It is a mistake to think that they are difficult to transplant. They do not have the long tap root of the native walnut, but will transplant nearly as well as an apple tree.

My trees have not suffered from any insect pest; they are remarkably free from them in the midst of an orchard of prunes, abounding with red spider, aphis and scale. The only thing which has given me any anxiety is the tendency of the leaves to scald or sunburn during the hot spells which sometimes occur in the summer. They would not be apt to be affected in this manner if the soil was more moist.

There is no reason why Northern California should not be a large producer of walnuts. They would be especially at home in the coast counties; there are thousands of acres in Mendocino, Humboldt, Sonoma and Santa Cruz counties, that now produce but little income, which are especially adapted to their culture. These trees can be procured from all the leading nurserymen of the State, and I hope planters will not neglect them the coming season. They are no experiment, as I have had favorable reports from trees in many parts of the State, from Red Bluff to San Diego.

Stockton, Cal. W. B. WEST.

[We are glad to have Mr. West's statement about the walnuts. We saw the collection for which he was awarded a premium at the Citrus Fair, and shared in the general admiration of it.—EDS. PRESS.]

LIFE AND DEATH.—At a late meeting of German naturalists and physicians, Prof. Cohn, of Breslau, read a paper on "Questions of Life" which showed that the great problem is not yet solved, and that in the living organism there are forces which, though they must be mechanical, as they put bodies in motion, yet cannot be split up into components of atomic molecular forces. "The gulf which separates life from death, organic from inorganic bodies, is not closed, and none of our hypotheses will help us to bridge this gulf."

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Government Telegraphy.

With each meeting of Congress there is a revival of interest in the scheme for transmitting telegraphic messages under the supervision of the Government. The discussion is not so general and earnest this winter as the importance of the question demands. Still, enough is said to show that a great deal of interest is felt in the subject by the people at large.

Our attention has been called to a paper contributed to the *North American Review* two years ago by Dr. Norvin Green, President of the Western Union Telegraph Company, presenting arguments to show why the Government should not control the telegraph system of the country. His argument, stated as briefly as possible, is: That the Constitution gives the Government no power to construct and operate telegraph lines; that if it be assumed that the Government has such power, then in all fair dealing the Government is bound to purchase the present lines. Not to do so would be a violation of good faith and an unwarrantable interference with private and corporate rights. That the companies now engaged in the business hold all the patents for telegraphic instruments, and the Government could not equip new lines. That if the Government proposes to set up in the telegraph business there is no other alternative than to buy out the present lines and their various patents at a fair valuation.

But this is a plausible misstatement of the case. It is not contended that the Government should go into the general telegraph business, but merely have in possession a system of lines in connection with the postal service of the country. In this respect there could be no question as to the constitutionality of the measure. It is one of the powers expressly conceded to Congress by that instrument. This could not be construed as an unwarrantable interference with private rights any more than the present system of third-class mailable matter can be construed as an encroachment upon the express companies. The monopoly of telegraph patents is a sheer bugbear. New companies find no trouble in that direction. The great Mackey-Bennett lines have been partly built and equipped since the above article was written. The desirability and practicability of such a postal telegraphy is demonstrated by the example of Great Britain, Germany, France and Austria. In commenting on this subject, Prof. G. G. Hubbard, of Cambridge, Mass, a statistician of high ability, in the *North American Review* says:

Congress could create a postal system, using the present postoffices and delivery system, either constructing its own lines or contracting with parties to furnish all necessary lines for transmitting telegrams, the contractors receiving the rates fixed by Congress in full compensation for constructing, maintaining and operating the lines, the postoffice furnishing such additional facilities as might be required for the purpose of transmitting, at low rates and with greater economy, business of a less urgent nature than that now sent over the Western Union lines. The Western Union would continue to perform a large part of the commercial business, on account of greater dispatch, and the business of the railroads. It would be inexpedient to adopt a low and uniform rate at once, as it would increase the business beyond the ability of the postal department or of any company to handle it. I believe that a uniform night rate of 30 cents between all offices, and a day rate of 25 cents between offices east of the Mississippi and offices west of that river and east of the Rocky mountains, and a rate not exceeding 50 cents between any two offices in different sections, would give the people what they need, and make the postal telegraph self-supporting. There are now at least 50,000,000 messages transmitted yearly by existing companies, requiring not less than 150,000 miles of pole lines. In six years, at the ordinary rate of increase, 100,000,000 messages will be transmitted. If a postal system with low rates should be inaugurated, the number would be increased to 150,000,000 messages, which would give business enough for all the lines and employes of the Western Union and the postal system.

AT the recent harvest feast of the Grange in San Jose, which appears to have gone off right merrily, Bro. I. A. Wilcox, Assemblyman-elect, spoke at considerable length on the reduction of the railroad rates on fruit shipments East. In closing, he said: "In my experience with the railroad officials, I have found them always willing to listen to reason. They realize that their interests are identical with those of the people, and in these matters it is a wise policy to confer with them and folly to antagonize them." The remarks of Mr. Wilcox were listened to with attention, and at the close were heartily applauded.

ENTERPRISE GRANGE.—In the list of officers-elect of this Grange, as published last week, the name of Thomas Waite, the retiring Chaplain, was inserted by mistake. The former Secretary, Mrs. M. L. Plummer, desires to have this correction noted.

Grange Elections.*

AMERICAN RIVER GRANGE.—Dec. 11: D. W. Taylor, M.; J. E. Beach, O.; M. Pike, Sr., L.; A. A. Harris, S.; M. Pike, Jr., A. S.; W. H. Giffen, C.; M. Lauredson, T.; J. C. Cornell, Sec.; J. C. Brewster, G. K.; Mary Cornell, Ceres; Mary Cox, P.; Martha Criswell, F.; Etta Cornell, L. A. S.; Maggie Cox, Org.; J. Cornell, Sr., Trustee.

CERES GRANGE.—Dec. 24: Vital E. Bangs, M.; M. J. Hall, O.; Sister H. M. Whitmore, L.; P. P. Stiles, S.; H. W. Brouse, A. S.; Sister A. Chapin, C.; M. M. Hall, T.; R. K. Whitmore, Sec.; Maria Lewis, G. K.; Nettie Brouse, P.; Susie Bangs, F.; Alice Whitmore, Ceres; Sarah Whitney, L. A. S.; Mary Williams, Org.

ELK GROVE GRANGE.—Thomas McConnell, M.; Geo. S. Williamson, O.; James Caples, L; W. J. Bader, S.; John Winkelman, A. S.; Gillis Doty, C.; Geo. T. Carr, T.; Delos Gage, Sec.; L. Shelmeyer, G. K.; Anna McConnell, Ceres; Mrs. Mary Kerr, P.; Mrs. S. Stelter, F.; Mary Chalmers, L. A. S.; E. W. Stickney, Trustee.

SNELLING GRANGE (reorganized).—Installed: Geo. P. Kelsey, M.; John Ivett, O.; Geo. W. Thomason, T.; S. K. Spears, Sec.; Mrs. Susan Fowler, L.

WASHINGTON GRANGE.—Dec. 18: Samuel C. Waters, M.; R. S. Pardoe, O.; Sister Blyther, L.; James Ritchie, S.; Chas. Child, A. S.; Sister Pardoe, C.; J. C. Blyther, T.; Chas. Bamert, Sec.; H. C. Little, G. K.; Minerva Holman, P.; H. C. Little, G. K.; Silvie Northrup, F.; Amy McIntyre, Ceres; Sister Bamert, L. A. S.

WATSONVILLE GRANGE.—N. A. Uren, M.; Sister E. Z. Roache, O.; Sister M. E. Tuttle, L.; A. Cox, S.; D. Tuttle, A. S.; Sister Hickman, C.; W. R. Speegle, T.; Sister S. J. Kidder, Sec.; J. F. Freels, G. K.; Josie Roache, P.; Nan Tuttle, F.; Sister Uren, Ceres; Anabel Tuttle, L. A. S.; Sister Roadhouse, Org.; O. Tuttle, Trustee.

WEST SAN JOAQUIN GRANGE.—Dec. 19: Alanson P. Stocking, M.; Jno. M. Kerlinger, O.; Wm. G. McKean, L.; Rufus Saddlemire, S.; Jas. L. Williams, A. S.; Mrs. J. M. Kerlinger, C.; Jas. Field, T.; Jas. C. Allen, Sec.; Washington Haynes, G. K.; Mrs. R. Saddlemire, Ceres; Mrs. J. G. Dean, P.; Mrs. A. P. Stocking, F.; Mrs. J. L. Williams, L. A. S.; W. Haynes, Trustee for three years.

YUBA CITY GRANGE.—Dec. 18: C. E. Williams, M.; C. C. Newkom, O.; Mrs. M. C. Smith, L.; N. Nelson, S.; A. S. Barr, A. S.; Mrs. S. E. Walton, C.; E. S. Wadsworth, T.; Geo. Ohlever, Jr., Sec.; E. C. Frisbie, G. K.; P. E. Newkom, P.; Mrs. Carrie Barr, F.; Nettie McCready, Ceres; H. S. Jones, L. A. S.; F. Cooper, Trustee; W. D. Woodworth, Org.

*Secretaries, or other officers, are invited to send us lists of officers elected, date of installations, and all other interesting matter for publication.

Installations Coming.

Within the next few weeks many Granges will install their officers-elect for the coming year. These ceremonies are often, and should be universally, made the occasion of gladsome social reunions. They should be well attended and by earnest endeavors made of lasting advantage to the Order. We notice the following announcements:

To Install Saturday, Jan. 1st.

Bennett Valley, 10 A. M.
Sebastopol, " "
Watsonville, " "
Wheatland, " "

Saturday, Jan. 8th.

Eden & Temescal (joint) at Haywards, 10 A. M.
Magnolia.
Sacramento & Sacramento Co. Pomona (joint) at Sacramento, 11 A. M. (W. M., Johnston to officiate as installing officer.)
Santa Rosa, 1:30 P. M.
South Sutter.
Stockton, 10 A. M.
Yuba City.

Saturday, January 15th.

Alhambra, 10 A. M.
Danville.

There are others, doubtless, of which we have not been advised; and we would thank friends and Patrons in all quarters to send us word of any such good occasions, whether in joyous anticipation or pleasing retrospect.

Several of the Granges above named have issued a general invitation and assurance of welcome to all Patrons in good and regular standing; and those who have not done so formally are, we feel confident, doing so silently in the spirit of fraternal hospitality. Let all who can attend such a gathering feel themselves cordially bidden.

A GRANGE CALLED FOR.—It strikes the *Herald* that a Grange, where farmers and others interested in tilling the soil could hold regular meetings and discuss the various branches of business, would be a good thing in Livermore.

WHEATLAND GRANGE has invited the officers and members of Yuba City Grange to visit them on New Year's day, to witness their installation ceremonies and partake with them of a Grange dinner in their hall.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

For many years agriculture has been compelled to contribute largely to favored interests without an equivalent return; farmers are paying taxes for others better able to pay them than they. By the operations of pools and schemes favored with monopolies he is legally "sheared" of the products of the soil. Agriculture pays much the largest share of public indebtedness, local and national, and after meeting the numerous demands upon it there is frequently no profit left as interest on the investment, often not even paying for the labor. The remedy is a thorough organization by farmers.

The first lesson a candidate learns as he enters a Grange meeting for the first time, is, "An honest man is the noblest work of God." We need honest men in these days, and we need them badly. A constantly growing procession is on the road to Canada. Will not the teachings of the Grange at least help—not alone as a prevention, but as a cure?

The regular annual meeting of the Colorado State Grange commences on the second Tuesday in January. The State Granges of New York and Illinois commence on the third Tuesday of the same month.

At the meeting of the Connecticut State Grange at Hartford this month, the morning and afternoon sessions of the second day were open to the public, and a well-arranged programme was carried out, led off by the Lecturer, J. B. Olcott. Each Grange in the State contributed something, either in the way of a short address or carefully prepared paper, and all interspersed with music and songs. A portion of the third day's session was devoted to a discussion of the tariff as it relates to the farmers of Connecticut, with good talkers on both sides to speak as invited guests.

"The indifference of those engaged in agriculture, and the other industrial pursuits, to matters of legislation and public affairs, has, in other times and in other countries, been the primary cause of class legislation, which has degraded labor and robbed it of its just rewards, and built up a moneyed aristocracy and monopolies which own and control not only the wealth of the country, but the Government itself. Such a condition of affairs can only be averted in this country by educating the wealth-producing classes to understand their privileges, and in the full exercise of their political rights to demand a fairer representation in the legislative departments of the Government and equal protection to their interests. In this great work of educating and elevating the agricultural classes of the country, and to save them from the impending fate that has befallen the agriculturist of the Old World, was our Order created." —*J. J. Woodman, Michigan, Past Master of the National Grange.*

Question for discussion by a subordinate Grange, "What are the causes of the hard times to the farmer, and how can he best meet them?"

The hall of Lebanon Grange, Connecticut, is a handsome building 40x60 feet, occupying the finest site in the town, contains upon the first floor a library and reading-room, with quite a collection of valuable books, and in the rear of this a large and convenient store-room. The second floor is occupied by the hall and ante-rooms, all finished in hard wood, with inside blinds of the same material. The hall will comfortably seat 400 persons. This Grange has nearly 200 members.

C. L. Whitney, of Michigan, has been lately doing some effective Grange work in Nebraska, organizing new Granges and reorganizing old ones. He is out officially, and under the direction of the Executive Committee of the National Grange.

"There is a tide in the affairs of men, which, taken at the flood, leads on to fortune." This is true of nations as well as of individuals. There are times in a battle when everything depends on the action of the moment. There are times in the life of nations when the same is true. The student of political science may easily see that we have reached a point where almost everything depends on the action of the next few years. Some one has said that "Five hundred years of time in the process of the world's salvation may depend on the next 20 years of the United States history." There are points in history where all lines seem to converge, and then from which they seem again to radiate. The closing years of the 19th century is such a point, and wise and good men, who care to be instrumental in shaping the political destinies of their country, can do more in the next few years than can be accomplished in centuries later.

"Let every heart and hand unite
In the benignant plan,
The noble purpose, just and right,
To aid our fellow-man."

A FARMERS' PORK COMPANY.—A correspondent of the Dixon *Tribune* urges the farmers of Solano county to form a protective association. He thinks that the aggressions, exactions and oppressions of the San Francisco pork-packers render some concerted action upon the part of the producers necessary, unless they propose to abandon, as unprofitable, this important industry. The packers have combined for the past three years, and the prices they have paid, ranging from two and a half to three cents per pound, are ruinous, and will not pay the expense of raising pigs to be eight weeks old. It will not do to say that the packers cannot afford to pay more. The price of bacon, hams, etc., gives the lie to such an assertion. The farmers can easily protect themselves from such imposition. "My remedy," he continues, "is to call meetings, form joint-stock companies, build slaughter and packing houses—say at Rio Vista, Suisun and Collinsville, or other convenient points—elect necessary managers, and procure the services of men who thoroughly understand the business of butchering and curing meat. In this way we will be able to save freight and the inconvenience and danger of long shipments, as well as protect ourselves against combinations. Such companies, properly organized and managed, could afford to pay farmers five cents per pound for hogs, and then double their investment. In this way, the money will be kept in circulation in the county, and employment may be given to many needy and deserving men."

Manly and Gentlemanly.

The Grass Valley *Tidings* speaks in a straightforward, handsome way of the late visit from the editor of the *Sutter Farmer:*

George Ohleyer came to Grass Valley at the invitation of the Grass Valley Grange. When here, Mr. Ohleyer was the guest of A. G. Peterson, who is a daily worker in the Idaho mine and who is, at the same time, a member of Grass Valley Grange. Mr. Ohleyer was shown around town by Alexander Henderson, a member of Grass Valley Grange, and one among the most reputable old citizens of the place. Mr. Ohleyer visited the Idaho mine and had a long conversation with the Messrs. Coleman, and he was shown over the mill and works at the Idaho by one of the Messrs. Coleman. Mr. Ohleyer then went to the Empire mine and looked at everything. He did not act in any underhand way. He was the guest of gentlemen who do not have that sort of acting. There was and is no "information" to be obtained at Grass Valley which can be used in the Legislature or anywhere else against mining. All the Grass Valley mines will bear the fullest scrutiny by any person from any of the valleys. Grass Valley mines invite the fullest scrutiny. They will be all the better, safer and stronger by having such men as George Ohleyer look at them. This is not because Mr. Ohleyer is any better or stronger than many other men, but because he has great weight in communities where he is known. The *Tidings* is not one of the papers that is drumming up lawsuits against quartz or any other mining. Therefore, when a man like George Ohleyer comes this way and looks at our mines, we are glad to see him, for he will see a great and beneficial industry of which he had no previous proper conception. We would like to see Green of the Colusa *Sun*, Short of the Fresno *Republican*, McClatchy of the Sacramento *Bee*, the Woodland editors, or anybody else from the valley, come up here, under their own names, and look at our mines. All such visitors will advance the mining industry, and many of such visitors would not only approve of mining, but would also invest in our mines.

RESOLUTIONS OF RESPECT.—The late Warren A. Smith is spoken of, by the committee of Placerville Grange, as a brother who was ever ready to proffer the hand of aid, and the voice of sympathy; an active member of the Order, whose utmost endeavors were for its welfare and prosperity; whose advice and counsel have been treasured up, and whose life was upright, noble and one that we might well emulate.

SNELLING GRANGE has been reorganized by the aid of Bro. E. Kelsey, so he writes the *Patron*. A partial list of the officers installed appears among our Grange elections.

HEALDSBURG GRANGE, a correspondent says, shows signs of reviving. We hope those signs are true forerunners of her return to a life of useful and glad activity.

A Libel on the South.

George Cary Eggleston writes home to the New York *Commercial Advertiser* from Los Angeles that the present boom in Southern California, which has blown Los Angeles into a city of 45,000 inhabitants in a few months, has the flimsiest of supports—the hope of a steady influx of consumptives from the East. He believes that that part of the world has a fine future, but that it will have to succeed a collapse.—*Springfield Republican.*

That there may be inflation in some directions in the south, and that reaction may follow to a certain degree, may be possible. In every rapid advance there is a chance of temporary reaction, though it does not always come. But to declare that the prosperity of the south is based upon a "hope of a steady influx of consumptives from the East" is a libel. The true statement is that which we quoted from Mr. Estee's speech at the Sacramento Citrus Fair, and which we reproduce once more to meet the false statements above. Mr. Estee said: "Southern California had no boom until that lovely country deserved it, and now the world knows Southern California by heart. It has promised much, but Southern California has done all it promised. Look at the carloads of oranges and lemons raised there and sent away to market; the wines and brandies that every month are sent to the East and Europe for sale; the raisins in almost unlimited quantities that it makes, and you will learn the secret of the success of Southern California."

PROF. J. G. LEMMON and wife have preempted 160 acres of fine grazing and fruit land in Chalame valley, San Luis Obispo county, where they intend to make headquarters for botanizing next season. Many friends will wish them good health and abundant success in their home-making undertaking.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

LEMON, GUAVA AND OLIVE.—Livermore *Herald:* Chas. A. Wetmore has on his Cresta Blanca vineyard-ranch a number of lemon trees in the fourth year, which are now well set with ripening fruit of good size. They have been raised without either irrigation or protection, on sidehill land. Mr. Wetmore has in nursery 2000 guava plants which he raised from seed, and will put out on his hillsides when sufficiently grown. The guava is a tropical fruit, but the plants thrive well on Mr. Wetmore's place. In fact, these tablelands and hills are never visited by frost, and the lowest point touched by a self-registering thermometer in his olive orchard last winter was 38 degrees. His olive orchard is now in its fifth year. Last season he made two quarts of oil, and this season 60 gallons from 200 trees. He says olives bear earlier here than in San Diego county, and he believes they will thrive better. Mr. Wetmore's place is well worth a visit, and should be seen by every one who desires to appreciate the resources of Livermore valley.

Contra Costa.

CAT, CATAMOUNT AND COYOTE.—Nortonville Cor. Concord *Sun:* Coyotes and wildcats are numerous in this desolate camp. Jas. Bryant trapped inside of a week four wildcats and five coyotes. The county should pay a bounty on the killing of one as well as the other. It would be well for the Supervisors to attend to this. A California lion was seen near McBride's mine, and Wm. N. Jones set a large trap with a double chain for his lionship. But the noble brute got away with the trap.

Inyo.

SHEEP TAX WANTED.—*Independent:* The Grand Jury recommend the imposing of an annual license on sheep pastured in Inyo county during any portion of the year, "as we well know that the county suffers materially from the grazing of predatory bands of sheep owned in other sections of the country, and to the great detriment of our citizens."

Los Angeles.

FRUIT SHIPMENTS EAST.—Santa Ana, Dec. 25: Up to date 225 cars of oranges, lemons, grapes and raisins have been shipped to the Eastern markets from this place this season. Oranges are just beginning to come in, and the outlook is favorable for a large crop.

ORANGES. — Anaheim Cor. Los Angeles *Times*, Dec. 22: The shipment of oranges is becoming quite brisk. The crop is of unusual quality, bright and clean, and the prices realized thus far give good satisfaction to shippers. The crop of several orchards has been sold on the trees at $1.50 per box.

A CABBAGE PLANTATION.—Anaheim *Gazette*, Dec. 25: Mr. Whitaker has planted on his Contra Costa ranch 17 acres of cabbages, and they are growing with the rapidity characteristic of the soil. A well-known commission house of Los Angeles has guaranteed him one and a half cents per head, and as there are 8000 head to the acre the profit promises to be about equal to that of semi-tropic fruits. The cabbages will be ready for the thrasher or header (we don't know how such things are harvested) by March.

PRUNES THAT PAY.—Pomona *Times-Courier:* James Loney has five acres set to French prunes, three and four years old, which yield him annually eight tons to the acre. In drying they lose about half their weight, leaving four tons to the acre. The dried fruit sells from seven to eight cents per pound. Mr. Loney, however, has been more successful than others who have engaged in prune-growing, and we hear of no one who has had his phenomenal success in prune-growing.

Merced.

FINE FIELD OF WHEAT.—Merced *Argus*, Dec. 25: The large field east of town belonging to C. H. Huffman, sowed to wheat on summer-fallowed soil, presents the handsomest appearance of any that we have seen on the plains this season. The ground was deeply plowed, harrowed three or four times, then sowed and harrowed in well, rendering the surface perfectly smooth and the soil thoroughly pulverized. The young wheat is up two or three inches high, looking bold, thrifty and as promising as could be desired at this time of year. Should the season prove favorable we expect to see harvested from it 40 or 50 bushels of prize wheat to the acre. Thorough cultivation on Mr. Huffman's farms around Merced in the past 15 years has proved universally profitable and demonstrated that those who till their farms well will reap a rich reward for their labor and the money invested.

San Benito.

ORANGES.—*Free Lance*, Dec. 24: B. B. McCroskey has in his garden several seedling orange trees heavily laden with their luscious fruit. The soil on which they are grown is the ordinary soil of the valley. The trees are healthy and of large size. There are not more than 25 orange trees in the valley, but they all do well, bear abundantly, and produce fruit of the best quality. Who will plant the first orange grove?

APPLES.—A. S. Murphy has brought us samples of some of the finest apples we have seen in California. They were raised in the foothills of the Lone Tree district. They are large, solid, of fine flavor, and entirely free from pests of any kind. The codlin moth, which has made such havoc among apple trees in various sections, is here unknown. The cultivation of the apple ought to be a most popular and profitable industry among our foothill ranches.

San Bernardino.

MALAGA RAISINS.—Ontario *Record:* We have in our office a box of Malaga raisins grown by L. S. Dyar, which to our taste compared favorably in color, plumpness and flavor with any Ontario Muscats we have seen. The Malaga is certainly a surer-producing grape on the foothills than the Muscat; it also gives a much higher per cent of layers, and many of our fruit-growers are of the opinion that it is the coming grape for mesa lands.

CHAMPION ORANGE.—*Press and Horticulturist*, Dec. 25: Wednesday H. M. Beers brought down from Crafton a Washington Navel orange which measured 16½ inches in circumference and weighed 1 pound and 10 ounces. This orange so far takes the blue ribbon for size, and if any one can beat it we would be glad to have him report to this office.

San Diego.

OSTRICH FEATHERS.—*Telegram*, Dec. 22: The first invoice of feathers was received at San Diego to-day from the American ostrich farm at Fairview, near the Fallbrook R. R. depot. The feathers are very fine. Many of them are from chicks 15 months old. The prices are $3 to $5 each, not cleaned.

San Joaquin.

EDITORS PRESS:—We are having delightful holiday weather so far, although we would all prefer, of course, to see clouds and rain. We hear much less grumbling because of the long delay than usual, and surely, after the bountiful harvest of the present year, we should take cheerfully from the hand of Providence a less prosperous season. However, we are still hoping for abundant rains later; it is not yet too late to expect it. As I write, December 28th, the wind is blowing and there is fair prospect that the new year will be ushered in with a storm.—MRS. J. M. K., *Tracy*.

Santa Barbara.

EDITORS PRESS:—We begin to get a little uneasy on account of the long delay of the rains. It is quite foolish, but I suppose we cannot help it. As long as there is plenty of time before us for abundant rains, which is the case at present, no one should look or feel gloomy. We have had sufficient to start the feed, which is growing below ground, if not much above, and at this moment the prospect for more rain is good. Doubtless we shall have sufficient in good time. A Happy New Year to all the readers of the good, stanch RURAL.—S. P. SNOW, *Santa Barbara, Dec. 27, 1886.*

Shasta.

ARTESIAN WATER.—Cottonwood *Index*, Dec. 21: Last week, while boring a well for Andrew Johnson southwest of here, Harry Polsley was surprised to find the water rising rapidly. It rose 70 feet in a few minutes, and is now within eight feet of the surface.

Sonoma.

CHESTNUTS.—*Democrat*, Dec. 25: It was announced last week that the first chestnuts raised in this section were grown on Mr. Whitaker's ranch in Yulupa valley last fall. This was soon contradicted by another gentleman who has had trees bearing for two years. Now it is learned that fine crops of chestnuts have been gathered from trees on Kohler and Frohling's land near Glen Ellen for four years past. These gentlemen also have bearing pomegranate trees upon their property.

Tulare.

A CHANCE FOR CHEESE-MAKERS.—*Times:* Is it not strange that in this alfalfa-growing county, where cows have the best of milk-producing feed, no one has engaged in the cheese-making business? It certainly could be made profitable. Stranger still, at certain seasons butter has to be shipped from S. F. to supply this market; and at any time first-class butter is hard to obtain. Here are two profitable industries that men of small means might engage in.

DRAFT DONKEYS.—*Delta*, Dec. 23: H. Barton's boys were in town yesterday, with their team of jennies, attracting nearly as much attention as a circus. The boys brought a cart-load of eggs and poultry almost as heavy as the diminutive animals which pulled it. They make 25 miles a day with their team, while the expense of feeding them is but a trifle.

MOUNTAIN APPLES.—George Dillon, of the north fork of Tule river, brought to town on Saturday 1600 pounds of fine apples from his orchard. He has 300 trees now four years from planting, and has thus far irrigated them. The apples are as fine and well-flavored as any grown in the cold Eastern States. The orchard is at the foot of the pines, about 2600 feet above tide level, where frost and snow abound, the latter falling six inches deep during heavy storms. The orchard thus far has not been molested by insect pests, and Mr. Dillon is bound to keep it clean if possible. The apples brought were contracted at three cents per pound, but would have sold readily at four cents, and even higher.

CORN CROP.—*Times*, Dec. 23: Heretofore persons engaged in raising corn in this county have given it little care, generally letting it go after one plowing and never "suckering" it. But this season they have given the crop thorough cultivation and care, and the result has been a yield of from 40 to 60 bushels to the acre. J. H. Thomas, just northeast of town, harvested over 60 bushels to the acre, all of it large fine ears and kernels. W. H. Blain, on his ranch two miles east of town, gathered about 50 bushels to the acre, and a large crop of pumpkins beside. Mr. Thomas, while having 10 bushels to the acre in excess of Mr. Blain, says that the latter's crop of pumpkins would more than offset his increase, though he thinks his corn would bring the best price in market, because the pumpkins undoubtedly took from the soil the nutriment required to fully develop the corn; yet he acknowledges that the money value of a crop of corn and pumpkins grown on the same ground would exceed that of a corn crop only. J. H. Johnson, A. I. Weston, Ben Hicks, J. W. Oakes, and many others living in what is termed "the swamp," have all raised large crops of corn, and in all their fields could be found stalks of corn 14 to 18 feet in length, bearing from two to three ears. The great value of these lands lies in the fact that corn and vegetables can be grown here in any season, whether a wet or dry one, and dry seasons are rather preferable, as it increases the price of the commodity.

ARIZONA.

GRAPES.—Phœnix *Herald*, Dec. 16: Yesterday the editor had the pleasure of eating a fine dish of ripe Muscat grapes, picked from his own vines a day or two previously. Fruit was ripe on the same vines July 1st, and since that time there have been two additional crops, three in all, and all good. Fifty vines, second year from cutting, have borne more fruit than could be used, and enough canned to last a family a whole year, besides what was given away. What will happen when the vines are five or six years old, or in full bearing, we are not ready to predict.

OREGON.

CRANBERRIES.—Portland *Rural Spirit:* There are between this city and Salem several tracts of land to be seen from the cars that ought to be yielding $250 to $400 worth of cranberries per acre every year. Men of means seem disposed to engage extensively in the sheep business. J. H. Sherer, of the Deschutes toll road and bridge, has some 14,000 sheep; and Messrs. Brayman and Summerville's 15,000 will soon be 30,000 or 40,000, if rumor is correct.

WASHINGTON TERRITORY.

THE PALOUSE COUNTRY. — W. M. Lee in Tacoma *Commerce:* The famed Palouse country is one of the greatest granaries of the Territory. Here great prairies stretch out for 150 miles, forming one of the richest agricultural sections of the Northwest. It is dotted with substantial buildings, fences, orchards and stock, indicating thrift, comfort and growing prosperity of the people. These prairies are quite unlike eastern prairies, the land being a succession of depressions and knolls. The soil on the hights is fully equal to that of the valleys, being largely composed of lava and volcanic ashes, containing ingredients favorable to the growth of grain, fruit and bunch grass; in short, to diversified farming. With mild and healthful climate, clear skies, short winters and cheap lands, Eastern Washington seems to be one of the most desirable spots for farmers to locate comfortable homes. Probably one-tenth of the prairie is cultivated, which is capable of producing 30 or 40 bushels of wheat per acre.

THE salt crop around the Bay of San Francisco, for 1886, is about 27,000 tons, being about one-third less than the crop of 1885. The cause of the shortness of the salt crop of this season is accounted for by the salt producers in consequence of having so much late rain and the smallness of the tides in the months of May, June and July. The tides were so small that the salt producers failed to get water into their reservoirs. The salt is of as good quality as in former years, and perhaps better. No stained or discolored salt was manufactured this year. The salt season generally begins in the month of May and ends in October.

THE tanning industry on this coast is developing many new features, and the efforts of the manufacturers to improve the quality of leather and produce such varieties of material as will tend to keep the trade in this line at home are particularly noticeable. Fancy leathers were not produced here to any great extent in former years, but at present the wholesale dealers and shoe manufacturers are largely supplied with skins which are tanned in this city and State.

GETTING MIXED ON THE BUTTER QUESTION.—A Government inspector at Des Moines recently placed the Federal tax for oleomargarine on a sample of genuine butter which had been submitted to him for inspection. Eight samples of butter were submitted, only one of which was the pure article, all the others being a very good quality of oleomargarine. All the latter were passed as genuine and the only genuine sample was taxed as oleomargarine.

MORTALITY AMONG SHEEP.—A Buenos Ayres paper says more than 20,000,000 sheep, or 12 per cent of all the herds in the province, have died from disease and exposure, entailing a loss, it is said, of $22,500,000.

Sonoma County Notes.

EDITORS PRESS:—The greatest of holid. has come and gone. With it the family reunion, the fatted turkey, the happy children and the pretty presents have each in turn been in full possession of the "man of business and the lady of the house." Christmas is truly the grandest of all holidays. Who would wish it otherwise? That holy day is the one of all the year, when farmer, merchant, lawyer, banker, doctor, teacher, preacher, mechanic, mother, sister and sweetheart, are each willing and able to lay away the cares of daily life which so much torment them and enjoy the pleasure of which they are all other days in the year more or less deprived. It is therefore a most glorious good thing that Christmas comes at least once each year.

For many years the weather has not been so pleasant at this season of the year as it was Christmas, 1886. The roads were fine, the day was bright, the sun shone warm, the wild birds sang sweetly, the flowers sent their perfume everywhere, and verily "December lay in the lap of May." How the contrast stands out when we think of an Eastern Christmas day! Oh, who would not live in California? As for me and mine, give us a home by the shore of the restless, health-giving, boundless, beautiful Pacific.

Sonoma county has a long line of sea coast; this portion of the county is noted for its fine potatoes, excellent butter and unsurpassed timber resources. These three items bring a great deal of money into our county every year.

There has been but little rain up to this date; the ground is not wet to any great depth, yet the farmers have managed to get a good deal of plowing done, and it seems to be done well. The grain is looking well, owing, no doubt, to the fact that in this section heavy fogs have been prevailing.

In many vineyards the work of pruning has already begun. Many others will wait till the New Year has come, before they will cut away the surplus wood, believing that if the new wood is cut away too soon the vine is thereby weakened. There are as many theories about pruning vines as there are about pruning trees, which is one for every orchard and one for every vineyard. The proposed railroad from Santa Rosa to Benicia seems to be an assured fact.

Already the contract for building the road has been let. Messrs. McBride & Noonan are the contractors. They propose to complete the road within one year. Santa Rosa will surely have a boom. A feeling of joy pervades every breast, and everybody hurrahs for the "Santa Rosa & Benicia Central Railroad."

The Santa Rosa Fruit Cannery, which was destroyed by fire some weeks ago, will be rebuilt in time for the fruit crop of 1887.

Cherry trees are in blossom. One lone blossom was seen on a pear tree last Sunday, but it was certainly out of place.

Live-stock is doing fairly well. Early lambs may be seen skipping here and there as one passes the pasture field.

The wine crop of Sonoma county will not be quite as large as it has been estimated, but it will be of most excellent quality.

Coal, in considerable quantities, has been discovered both north and south of Santa Rosa, about 2½ miles each way; which mine will prove the better one is the question the respective owners are trying to demonstrate. Good luck to both is the earnest wish of your

OCCASIONAL.

Santa Rosa, Dec. 27, 1886.

A New Grain-Cleaner.

The policy and practice of the grain-growers of the interior valleys in using the combined harvesters in gathering their crops has enlisted the best efforts of inventors in providing appliances and additions to perfect and improve this system of harvesting. Ashley Bros., of Stockton, have built a grain-cleaner and applied it to several combined harvesters with very satisfactory results. Its chief feature as a grain-cleaner is an arrangement of sieves that are moved by a quick, jarring motion, and on which the grain passes over as it comes from the separator cylinder, allowing the small seeds to sift through and be gathered into a sack. The wind is applied after it passes over this sieve and the chaff winnowed from the grain. It is claimed that most of the foul seed from weeds is thus gathered and saved from being scattered on the land. A RURAL representative recently witnessed experiments being made at the Agricultural Works at Stockton with this cleaner, with gratifying results. Several farmers and master mechanics who were present at this trial gave it a hearty approval. It was used on several combined harvesters this season, one of which was owned by Mr. Ross Sargeant, of Stockton. Several farmers have made arrangements to use this grain-cleaner at the coming harvest. Mr. L. E. Ashley has also invented a sack-holder that is highly praised by those who have used it.

A LARGE deposit of marble has lately been discovered in San Bernardino county, and but three miles from the railroad. It covers 600 acres and has 11 different colors and shades so far as yet discovered. It is said to be of the finest quality and can be laid down in Los Angeles for $1 a cubic foot. It is a remarkable find.



Farewell to the Old Year! Hail to the New!

[Written for the RURAL PRESS by MALLIE STAFFORD.]

Within the sober silence of the woods
The dying year has trailed her garments gray;
Her robes of flame, from autumn's changeful moods,
Around her in their beauty softly lay.

The oak has laid aside its russet crown,
The maple's lovely leaves of burnished gold
Sadly and pensively are drifting down,
Heaping the dim wood paths with fold on fold.

Where erst the buckeye tossed its waving plumes,
Where the low murmur of the bee was heard
Sipping the rare nectar of the scented blooms,
By every light wind of the forest stirred,

There is naught left but naked branches grim
And spectral boughs, the ghost of beauty fled,
No sweet perfume around it lingering;
Silent it stands, the wraith of beauty dead.

The grass that sprung along the Old Year's aisles,
By gentle rains has cast its weight of seed;
And now a tender verdure, sweet and wild,
Springs up—the harbinger of early feed.

It is as if the Spring walked hand in hand
With Winter, blustering and stern of frown;
For lo! a verdure mantles all the land,
Tho' sere and withered leaves are drifting down.

It is as if the New Year came apace
To light the wearied footsteps of the Old;
In every ray of sunshine we can trace
The bud and blossom that shall yet unfold.

Midwinter and the Old Year dying fast,
And still she weaves a dainty robe of green
Ferns and rich mosses and the early grass
To dress the hills and sodden fields between.

We look adown her sweet, well-trodden ways,
Where Spring, the elfin, brought us bloom and flowers,
And trailed her perfumed robes through all the days—
The long glad days of sunshine and of showers.

We well remember how the hills were clad
In all the verdure of a radiant clime;
And darksome woods, and somber glens made glad
With beauty, deftly touched by days divine.

How fresh the winds came from the waterfall,
And all the woods were rife with dreamy song;
And from afar the myriad wild birds' call
Echoed the emerald vales and hills along.

Then summer's brightness, come with ling'ring feet,
And all her airs with bird-notes were atune;
And the green fields of waving corn and wheat
Sang whispers to the roses of sweet June.

There was a languor on the floating breeze;
A deeper tint upon the blushing rose;
While sang the oriole thro' the glistening leaves
That rustled in the golden orange groves.

By warm soft winds and summer sunshine kissed,
The vineyard drop't its weight of fragrant blooms
And purple clusters, gold and amethyst,
Slow ripened in the cloudless harvest noons.

Where erst the "header" moved among the wheat,
And the tanned toilers garnered shining grain,
The plowman now wooes Nature to repeat
The generous bounty of her yield again.

There is the barn, well filled with plenteous cheer,
With window in the loft that opens wide—
Round which the white-winged pigeons circling near,
Essay their noisy young to feed and chide.

The open sheds, where feed the lowing kine;
The flocks and herds that sport upon the hills;
Near by the stream whose noisy waters wind
Their music with the thunder of the mills.

It was a bounteous year; praise be to Him
Who showers blessings on us manifold;
Albeit some days grew dark and strangely dim,
When sorrow sought us with its gloom untold.

We will not dwell on them. The year is past!
Fold up our glooms and lay our griefs away;
Spring flowers will bloom—after the winter's blast,
New joys are waiting for the coming day.

For lo! the sun has lit the blue-draped hills,
Verdure and blossoms crown the grateful earth.
Rejoice! rejoice! our hearts re-echo still,
New hopes and joys come with the New Year's birth.

Arcadian Hights.

PERFUME FROM FADED ROSES.—Instead of throwing away bouquets of faded roses, or other flowers of special perfume, place the faded or dead dry leaves in a convenient dish and sprinkle a little alcohol over them, and the room where they stand will be filled with their odor. In England it is a common practice; very large vases are kept about rooms, into which all the faded rose-leaves are thrown and sprinkled with alcohol, and thus a very pleasant atmosphere is secured about the house. There is no other way of preparing rose perfume, except by the regular process of distilling. Rose flavor can be given to cake, if any one fancies it, by putting the butter to be used in the cake in a saucer or plate, and setting it for some hours inside a vase filled with rose-leaves that are pri nkled with alcohol.

Fireside Chats.

[Written for the RURAL PRESS by HILDA DELESTHER.]

There are two sides to a shield and two sides to a question; and we cannot expect our neighbors to view either one or the other with our eyes, or see it in the light we do, till it has been turned fairly around so as to present the special side for which we may be tilting.

Now, about the question of encouraging children to know and remember the names of our best authors. It seems not only a desirable, but a very essential part of the many things they ought to learn from their very first acquaintance with their well-beloved story-books. I do not mean that they should be set the task of learning a list of names which would be to them meaningless, but when you have read to them one of Miss Alcott's stories to which they have listened with eager delight, then if you tell them who wrote it, and that she always writes capital stories for children, they will remember her name with a love and enthusiasm that will make them eager for every book she writes. Just so it will be with the names of Susan Coolidge, Sophia May, J. T. Trowbridge, Jacob Abbot and Bayard Taylor. I remember how my children fairly bubbled over with rapture when they began to read Trowbridge's stories, and it was just as easy to add his name to their list of authors as it would be to remember any other dear, delightful friend. If, while they are young, you choose books which are good and yet interest them, they will begin to rely, almost unconsciously, on your judgment, and wish to know the authors you love; and if you have the means to gratify your taste they will come to value, as you do, Whittier, Longfellow, J. G. Holland, Mrs. Stowe, Miss Woolson, Dickens, Geo. Macdonald—but there, I will stop at that author, as I cannot mention all, and ask if you have read any of his works? People talk about the greatness of Dickens, but certainly Macdonald rivals him in beauty and poetry of composition and description of character. Some say they cannot understand the Scotch dialect which occurs in Macdonald's books, but any one who can sing a Scotch song will come to like it after a little, and will find himself repaid for their careful reading. I should think it was not more difficult than the dialect used to a greater extent in "That Lass o' Lowrie's," by Mrs. Burnett.

As to the good it will do children to become familiar with the names and works of our best authors, it will help to keep them from reading poor, trashy books which are sometimes worse than nothing. Your correspondent who thinks "all novels, even the poorest, are nothing more nor less than heart histories," has not perhaps thought that many of the poorest must be written by persons who care nothing for the heart, morals, or life of their readers, but do care for the money sensational stories bring, and try very little to help tempted humanity to the best and most noble ways of living.

I visited our Teachers' Institute and heard the superintendent recommend the teachers to direct their scholars' attention to our poets and best authors and get them interested in the best literature. That seems a step in the right direction, for most of them are sure to become interested in literature of some kind. And if it is well to have a care as to the books we read, so is it well to have a care as to the language we speak and not readily adopt slang phrases; in that I agree with the "Woman of 4—" most heartily.

I have read with pleasure the articles from our pleasant "Girl" writers, and am glad they show an interest in good books—travels and descriptions of different countries—and that when they do read stories they try to get the best. I would suggest that "A Girl of Twenty" take some "nom de plume" more easily referred to than her present signature, for I hope she will continue writing for years to come. I think she, and "Working Girl" and "Wake Robin," and others who have written for the RURAL, are among the sensible girls such as I am always delighted to meet; for I do often meet girls who are willing to work, who help their mothers and have sensible views of life, and I say, "Here is another one to prove my theory that good girls are in the majority, are the rule and not the exception."

Our Women.

Some of our newspapers are altogether too sweeping in their denunciations of women, as, for example, take the following which I clip from a California publication:

Man is supposed to be the noblest work of God. Perhaps he is designed to be, but alas! they fall far short of noble manhood and for the sake of money do many contemptible things. Woman is little better. Her greatest ambition is to outshine some one else in society, consequently she spends wakeful nights in planning new conquests and her days in arranging pretty toilets to gain admiration from any man but her husband, her father, or brothers. From girlhood to womanhood, from youth to old age, she spends the precious moments of life in frivolity, and finally passes from earth to the unknown land and is soon forgotten by all. Alas! for the misspent days, alas! for the wrecked homes.
* * *

It is possible that the writer of the above does not intend to include even the majority of women under this head, yet he makes no exception. For married women who do flirt his words are none too hard, no, not severe enough, for they ought to have passed their days of thoughtlessness and to have some reverence for truth and honesty, and the strength of character to live up to the right standard of womanhood. Girls can have plenty of real enjoyment, fun and laughter, without flirting. One of the "Girl" writers seems to think we old women are altogether too serious with our anxious admonition "don't flirt;" but just think of the evil it has led to in some cases and then say if you blame mothers for their anxiety.

Hospitality.

"Old Californians are very liberal," remarked a talkative friend; "they don't think so much of a dime or of giving away a meal of victuals as Eastern people do."

I do not know about that. I remember with delight true Eastern hospitality, but I think the ingratitude and impositions of tramps are making people everywhere chary of trying to entertain angels unawares, and even causing them to look coldly upon strangers who come driving about in carriages. Think of a wealthy man whose business takes him all over the State; he drives up to your door about noon and you ask him to dinner, and he talks all the time he is eating of how he gets his meals for nothing, and laughs at the way he "sponges" his living from the country people; and finally stops on the doorstep to tell you seriously how many hundred miles he and his wife have traveled, and it never cost them a cent for board or lodging. The next time he comes, do you think you would feel the same free-heartedness when you ask him to dinner that you did the first time? I believe you would not. If there is to be "old-fashioned" hospitality in the land, the guests must do their part toward it.

Shirtmaking.

It is actually becoming fashionable in England for aristocratic men to wear colored shirts, but it is a satisfaction to remember that it has been fashionable among farmers in this country for many years, and farmers' wives have been saved many hours of hard work at starching and ironing. Perhaps the miners of '49 really set the fashion, as they universally adopted the colored woolen shirt, and blue cotton and the more fanciful gingham and cheviot naturally followed.

It was different when I was a girl—then my father and brothers and all other farmers I knew wore white shirts, and worked in their shirtsleeves at the roughest work on the farm; so the washing, you may be sure, was very tedious. Still we were not inventive enough to make colored ones for them. I have just been making cheviot shirts, and I made the undersides of the sleeves of double cloth as far up as above the elbow and more than half-way across the sleeve. It will save mending so soon, and it is such a little work to stitch it on before putting the sleeve together. Probably the aristocracy wear cloth of superior quality—the traditional "purple and fine linen," perhaps—but whatever it is, our home folks may take the comfort of knowing that they are really in the hight of fashion now, and that they set the fashion themselves.

Soquel.

The Man in the Kitchen.

EDITORS PRESS:—As I see so many notes on housekeeping, I wish to say a few words in regard to a man in the kitchen. I think it an honor for a man to know how to cook a good meal of nice-flavored victuals. My good husband is as handy in the house as some of our women. As for my two sons, I teach them how to be ready to do any kind of labor in or out of doors; it will be good for them by and by to know how to keep house. Cooking is a delightful calling, even if at times one has but little to make a dinner or supper of for the hungry.

My family consists of four—myself, husband and two sons. I have my kitchen and dining-room in one, thus saving many steps; water near the door, and wood just as handy and plenty of it. As my method is to have a nail or shelf for everything and everything in its place, a meal can be got up quickly by the slowest person.

If some of those that dread housework would go where it is healthy, it would be a great deal better. I found this out by my own experience, and know it to be so. Health gives wealth and comfort.

I must close for this time. If this doesn't find its way into the waste-basket I will give some of my experiences in life—that is, as to health and labor. Will some one of your many readers please to give a recipe of our German grandmothers' way of making soap?

MARIA C. SHOEMAKER.

Ono, Shasta Co.

BEECHER says the country is getting to be full of 8 hour men and 14-hour women. Old H. W. struck a keynote in that remark. We have never heard of an instance of any labor organization of men denouncing less hours of work for their wives, but the clamor of the men for less work and more pay ascends to the heavens.—*Santa Ana Standard.*

A SCIENTIFIC writer tells how hot water can be boiled in a sheet of paper. We don't doubt it. We have known a man to write a few lines on a sheet of writing paper that kept him in hot water for three years.—*Burdette.*

The White Cross Movement.

The object of this organization is so high and elevating that it should engage the earnest co-operation of every man and woman who believes in whatsoever things are pure, lovely and of good report in the world. Even the habitual scoffer at righteousness must bow low his head in honor to a society whose purpose is to secure respect for all women and endeavor to protect them from wrong and degradation, and which couples with this the endeavor to suppress all indecent language and coarse jests. It matters little that the article of the society's creed that maintains "the law of purity as equally binding upon men and women" may be considered by self-indulgent men as the profession of an impossible belief. Every man who orders his life by such a creed must grow toward the virtue of the man without sin.

Were all homes and schools and colleges what they should be, there would be no field for a society to teach men Paul's message to Timothy: "Keep thyself pure." With the memory of a mother's watchful care and gentle ministrations to influence his life, the man must be a monster who treats any woman with less than outward respect or whose sympathies do not respond to the distress or injury of any mother's daughter.

There must have been something wrong in the home life of a man who does not treat all women with respect, or who is not interested in protecting them from wrong and degradation. A son is naturally, though perhaps imperceptibly, influenced by the example of his father. Let this be one of petulance, arrogance or inconsiderate harshness toward the wishes and feelings of the mother, the son, without knowing it, loses that chivalric bearing toward all women which marks a gentleman in overalls as in doeskin. As a man sees women treated in his home, so he will generally treat them away from home. Of course, education and subsequent association may modify his manners, but they seldom change his heart.

Touching the use of indecent language and coarse jests, there can be but one opinion. They defile the mouth that utters them and the mind that is not closed against them. Too many men beguile their leisure hours in the interchange of obscene stories or coarse jokes. Against this the White Cross sets its face, and all society that loves purity and detests indecency should espouse so worthy a cause.—*Chicago News.*

Bad Boys and State Discipline.

In their final report, rendered the 11th instant, to the Superior Court, of Santa Clara county, the grand jury makes these wise remarks and recommendations:

We respectfully call the attention of our legislative delegation to the urgent necessity for a radical change in our penal laws in respect to juvenile offenders. Before our criminal courts boys, who are mere children in years and appearance, are constantly being brought charged with offenses of the gravest character. To discharge these boys without punishment is, in effect, to instruct them that they have complete immunity for such offenses, to encourage them, as well as others, to repeat such crimes, aad thus to insure their ruin; while to sentence them to either the State prison or the County Jail, is to confine them with old and hardened offenders, whose examples, precepts and association are equally fatal to any hope of reformation. It is from this condition of affairs that the community suffers in present depredations and lawlessness, and from it abundant recruits are assured for the criminal classes of the future. In many of these cases home influence and parental carelessness, or perhaps parental influence, is largely accountable for the character and conduct of the children; so that the complete severance of these pernicious relations is indispensable to any system of reformation. Believing, as we do, that the moral obligation resting upon the community calls for interference as to these unfortunate youths, we think that the lower consideration of mere economy points in the same direction; that it is cheaper to reform two boys than to guard against or punish one mature criminal. We therefore urge upon our legislative representatives the imperative necessity of the establishment, by the State, of a Reform School, of the character and conducted upon the system found so beneficial in nearly all the States, for the detention and reformation of youthful criminals.

A COW DIES OF GRIEF.—Joseph Perrin lost a fine young Ayrshire cow a few days ago under peculiar circumstances. The cow, which was three years old, had her first calf, for which she manifested more than ordinary affection. When the calf was three months old it was taken away from the mother and sent to the butcher block, but from the moment of separation the cow refused to eat, although food was constantly accessible to her. The animal continued to evince great mental distress, bawling almost constantly for several days and nights, and finally lay down and died, although being in excellent condition and showing no symptoms of disease. The animal grieved itself to death for the loss of its calf. Mr. Perrin says that in his long experience with cattle he never knew or heard of a similar case.—*Grass Valley Union.*

Smoking Infants at Livermore.

The trustees of the town of Livermore have passed an ordinance prohibiting the sale of tobacco, cigars and cigarettes to certain persons and the smoking thereof by such persons in public places, as follows:

SECTION 1. Every person who, within the town of Livermore, sells or gives, or causes to be sold or given to another, under the age of 16 years, any tobacco, cigars or cigarettes, to be smoked by such minor person, is guilty of a misdemeanor and punishable by fine not exceeding $20 or by imprisonment not exceeding 10 days, or by both such fine and imprisonment; provided that nothing herein shall be deemed to apply to the parents or guardians of such minor persons or to physicians.

SEC. 2. Every person under the age of 16 years who smokes any pipe, cigars or cigarette in any public street, square, grounds, hall or other public places within the town of Livermore, is guilty of a misdemeanor and punishable by fine not exceeding $10 or by imprisonment not exceeding five days, or by both such fine and imprisonment.

SEC. 3. This ordinance shall take effect from and after the date of its passage.

In referring to its passage the *Herald* observes: "We consider the purpose a good one. The average cigarette is rankly poison, and has a decidedly injurious effect upon a growing boy. Whether the practice can be entirely broken up in this way, we know not, nor do we assert that even a better result cannot be arrived at in some other and less energetic way. But this seems the readiest method of getting at the evil, and we do believe that it will tend to largely decrease, if not prevent it altogether. There should be no trouble in enforcing the measure, and we anticipate none."

ANTIQUITY OF MAN IN THE UNITED STATES.—Col. Charles Whittlesey has obtained evidence of the existence of two races of man, and possibly of a third intermediate race, as having held possession of the northern portion of the American continent—the more recent of them being the North American Indian or red men; the earlier race he terms the mound-builders. The antiquaries of Europe regard the people who used flint instruments as being prior to those who had implements of stone; and the latter, again, as older than the races using bronze or other metals. In the United States, the race next prior to the white man had very few implements of stone; their knives and arrow heads, their war implements and their agricultural tools, were almost entirely of flint; they had very few and rude instruments of native copper. The mound-builders, on the contrary, who preceded the red men, produced and used tools in the reverse order; their axes, adzes, and mauls were very numerous, and sometimes of stone; their copper tools abundant; but those of flint, very rare. Hence, in this instance, the most ancient people were the most industrious; they cultivated the soil; they possessed more mechanical ingenuity, and left more prominent and permanent monuments. On the Atlantic coast, from Nova Scotia to Florida, are numerous shell heaps, identical with those of Sweden, Norway and Denmark, and known as kjœkkenmæddings. The examination of several caves gave bones of the wolf, deer, bear, rabbit, etc., mixed with skulls of the red race, and not dating back apparently more than 2000 years. Col. Whittlesey estimates 2000 years as the period also of occupation by the mound-building race, which does not take us back as far as the beginning of the historical period in Asia and Africa.

How to Succeed in Business.

Don't worry. Don't overwork.
Don't make the field too broad.
Be wary of dealing with unsuccessful men.
Make friends, but don't encourage favorites.
Keep down expenses, but don't be penurious.
Keep a high vitality. Sleep well, eat well, enjoy life.
Stick in your chosen pursuit, but not to chosen methods.
Don't tell what you are going to do—till you have done it.
Enter your charges when the goods are sold. Don't wait.
Make plans for a little way ahead, but don't cast them in iron.
Be content with small beginnings—and be sure to develop them.
Don't take fresh risks to retrieve your losses. Cut them off short.
Be cautious; but when you make a bargain, make it quietly and boldly.
A regular system of sending out bills and statements is more effective than spasmodic dunning.

FORCE OF HABIT.—"There is nothing in the world that shows the inborn tendency of mankind to run in a rut more than the architecture of the modern shirt." So said a young man of iconoclastic tendencies. "For years men's vests have been buttoned almost up to the chin, and the little piece of shirt front that would be left exposed has been covered by a necktie. And yet men go on wearing shirts with fronts down to the waist starched and ironed till they are as stiff as a boiled plate, and they pay every week for getting two or three of these things carefully polished. A man might as well have the back of his vest laundried every week."

YOUNG FOLKS' COLUMN.

Look Up, My Boy.

There is hope in the world for you and me;
There is joy in a thousand things that be;
There is fruit to gather from every tree,
Look up, my boy, look up!

There is care and struggle in every life;
With temper and sorrow the world is rife;
But no strength cometh without the strife;
Look up, my boy, look up!

There's a place in the land for you to fill;
There is work to do with an iron will;
The river comes from the tiny rill,
Look up, my boy, look up!

There are bridges to cross, and the way is long,
But a purpose in life will make you strong;
Keep e'er on your lips a cheerful song;
Look up, my boy, look up!

Speak ill of no one; defend the right;
And have the courage, as in God's sight,
To do what your hands find with your might;
Look up, my boy, look up!

—*Good Cheer.*

The Turkey Pa.

[Written for the RURAL PRESS by MRS. J. M. H.]

Mamma thought as we had moved into the country where there is lots of room for everything, she would raise some turkeys. The first year she raised but one. She didn't understand just all about them, you see, and somebody told her hens made better mothers for little turkeys than a mother turkey. So she put the turkey-eggs under an old black hen; but just as soon as that old hen saw what queer-looking things came out of those eggs she was just as mad as she could be, and before we knew what she was about she had scalped five of the poor little things. That left us only three. Mamma then found a hen that wasn't such an Indian, and gave them to her. She was good to them, but two got sick and died and then there was but one.

He grew finely. The next year mamma bought a hen turkey and she hatched eight little turkeys. An ugly rooster killed one of them and—we had chicken for dinner the next day—the rest all grew splendidly. They were the hungriest little things. Mamma said they were always presenting their bills.

One morning, when they were a few weeks old, we found their mother stiff and dead in the bottom of the coop. Mamma didn't know what in the world she would do with those poor, motherless turkeys; but while we were standing there, feeding them and talking about it, along came the old gobbler, the same one we had raised the year before, strutting and gobbling, his feathers all puffed out, his tail spread and tilting from right to left. The little turkeys saw him and ran up to him, peeping and trying to get under his wings. He looked astonished. He folded up his tail, drew up his wings and laid every one of his feathers flat and smooth. He stuck out his red head and looked as if he didn't know just what to make of the situation. His neck turned purple and then white, then red. He looked as if he were embarrassed and was blushing. Finally, he began to step around very cautiously, the little turkeys following him and crying "peep, peep."

At last he seemed to understand about it and let them follow him. It was too funny to see them trying to get him to hover them. He couldn't seem to manage that, but after awhile would hunt bugs for them and give the alarm, which sounds like "quit, quit," when a hawk came sailing along.

Those little turkeys learned to strut and gobble when they were little bits of things, and sometimes, when a little gobbler would be strutting along with its tail all spread out so fine, a little hen turkey would dart up behind him and give one of the inside feathers a tweak, and that little gobbler would shut up his tail in a jiffy.

Well, that old fellow took care of them until they were grown, and then fought with the gobblers till you would think their necks would be twisted off. He was a fine bronze turkey, and when standing in the sunlight his feathers were lovely gold, red and brown; he had a golden band around his tail, and he loved to spread his tail and swell himself up just as big as he could, so as to show off fine when any one was looking at him.

After he took care of the little turkeys, we called him *The Turkey Pa.*

Lynden, W. T.

SAN JOSE REBUKES SANTA BARBARA.—Santa Barbara has permitted the celebration of its centennial to be disgraced by a brutal bullfight. The horns of one of the bulls exhibited were sawed off, after he had given proof of prowess, and those of the next bull were sawed off in advance by the cowards who managed the affair. Two horses were lifted in the air and another terribly gored. These cruelties were followed by a barbarous exhibition of the riata, in which one of the wild horses had his neck broken. After this, residents of Santa Barbara should be dubbed barbarians—without the *Santa.—S. Jose Times.*

GOOD HEALTH.

The Danger of Kissing.

There is danger in promiscuous kissing, especially in the very common practice of grown people, particularly strangers, in kissing little children. A physician lately said to a friend that he never allowed it in his family. "The danger," he said, "is so complicated and yet so certain that it would take too much time to describe it here. In my case, all kinds of people come to my house and office to consult me, and they often wait hours. If one of my children happen to come in they are almost certain to talk to it, and you know almost the first impulse with people who notice children is to kiss them. Bah! it makes me shudder—tainted and diseased breaths, lips blue with cancer, foul and decayed teeth. You would kill a stranger who would waylay your young lady daughter and kiss her by force, but the helpless, innocent, six-year-old child, susceptible as a flower to every breath that blows, can be saluted by every one who chances to think of it. I tell you it wasn't Judas alone who betrayed by a kiss. Hundreds of lovely blooming children are kissed into their graves every year."

"But, doctor, how can a mother be so ungracious as to refuse to allow people to notice her sweet little children?"

"There need be no ungraciousness, or, if there were, which is the more important, the safety and well-being of the child or the permitting of a habit of ill breeding and doubtful morality at best? Let the mother teach her child that it is not a kitten or a lapdog, to be picked up and fondled by every stranger, and instruct it to resist any attempt to kiss it. Why, there are agents, peddlers of household wares, who make it a custom to catch up a prattling child, kiss and pet it, and so interest the mother that she will buy something she does not want. I tell you there is death in the kiss! The beloved and lamented Princess Alice of Hesse took diphtheria from the kiss of her child and followed it to her grave. Diphtheria, malaria, scarlet fever, blood poison and death lurk in these kisses."

HINTS ON EATING FRUIT.—A correspondent of the San Diego *Union* furnishes the following very useful and suggestive hints on eating fruit, the latter portion of which we would call to the special attention of our city retail fruit dealers:—"The Health Officer some time since called attention to the danger of eating old or partially decayed fruit. This matter cannot be too strongly urged upon the public. There is still another source of alimentary diseases which seem to me equally dangerous, viz.: the eating of raw fruit over which innumerable flies have crawled. How often have we seen boxes of grapes on the sidewalk literally swarming with flies! When we think of the unspeakably filthy quarters from which those flies have gathered and the ease with which disease is thus carried from the sick to the healthy, we may well hesitate to buy and eat grapes thus unprotected. I speak of this fruit especially, because it is nearly always eaten raw, and the ordinary rinse does not at all remove the dangerous specks from its skin. Will not our fruit dealers, especially on warm days, make a more liberal use of netting?"

A NEW DISINFECTANT.—A new disinfecting compound for purifying the atmosphere of the sick-room has recently been presented to the Berlin Medical Society. Oils of rosemary, lavender and thyme, in the proportion of 10, 2½ and 2½ parts respectively, are mixed with nitric acid in the proportion of 30 to 1½. The bottle should be shaken before using, and a sponge saturated with the compound and left to diffuse by evaporation. Simple as it is, the vapor of this compound is said to possess extraordinary properties in controlling the odors and effluvia of offensive and infectious disorders.

EARTH INFECTIONS.—A barrel of kerosene oil buried 10 feet under ground will, it is said, contaminate every well within a quarter of a mile, and the oil will be apparent to the taste. The accumulations of privy vaults will extend their pernicious influence even a greater distance, although the water which it affects may not indicate to the taste the presence of any impurity. Whether privy vaults are open or plastered with cement, they cannot keep the poisonous gases and substances from penetrating the surrounding soil.

COFFEE AND EGG FOR SICK PERSONS.—A sick person wanting nourishment and having lost appetite, can often be sustained by the following, when nothing else could be taken: Make a strong cup of coffee, adding boiling milk as usual, only sweetening rather more; take an egg, beat yolk and white together thoroughly; boil the coffee, milk and sugar together, and pour it over the beaten egg in the cup you are going to serve it in. This simple receipt is used frequently in hospital practice.

DEATHS FROM ALCOHOLISM, so the New York *Herald* asserts, have decreased during the last 15 years from a ratio of 111 to 45 in each 1000.

DOMESTIC ECONOMY.

APPLE CHARLOTTE.—Butter a deep dish thickly. Cut smooth slices of bread and spread them with butter, and line the bottom and sides of the dish. Fill it with sliced sour apples. Sprinkle each layer of apples with brown sugar and any spice you prefer, also a few small bits of butter. Soak some slices of bread for a minute in milk or water; lay them on the top and cover them with a plate that will fit close, and lay a weight upon that. Bake two and a half hours in a moderate oven. It should turn out whole into another dish. Serve with cold sauce.

RICE CAKE.—One cup of cold boiled rice, three eggs, a tablespoonful of melted lard and the same of sugar; three large cupfuls of warmed milk, a cupful of flour, one teaspoonful of baking powder sifted twice with the flour, one even teaspoonful of salt. Beat the yolks light; rub the sugar and lard together and add to these, then the milk and salt, and lastly the whipped whites and flour alternately; beat hard one minute. Bake in a quick oven in two "birch" tins, and eat before it falls.

ORANGE MARMALADE.—Six large, sweet oranges and juice of two lemons; shred into fine pieces with a sharp knife, leaving out the seeds; put into a preserving kettle with two quarts of cold water, and let it stand all night; boil for one hour and add five pounds of sugar and boil one hour longer, or until the syrup is quite thick; fill jelly tumblers or small jars, and when cool, cover closely. I like this better than when made with bitter oranges. It will keep a long time and is easily made.

DUMPLINGS.—One cup of sweet milk, one egg, one heaping tablespoonful of butter, salt, one teaspoonful of soda, two teaspoonfuls of cream of tartar; rub the butter with a little flour to a cream, then add the remaining ingredients, with enough flour to make it very stiff. Drop the batter by tablespoonfuls on a greased pie tin, and steam about 30 minutes. This will make seven good-sized ones, which can be divided, and they cannot fail to be light.

SUGAR CAKES.—Half a pound of dried flour, one-fourth pound of fresh butter, one-fourth pound of fine, white sugar; mix the flour and sugar together, and then rub in the butter and yolk of an egg beaten with a tablespoonful of cream or new milk; make it into a paste, roll and cut into small cakes; bake upon a floured baking tin or shallow tin pan. A little grated nutmeg improves these cakes; a cake expressly for the wee folks.

COCOANUT COOKIES.—One grated cocoanut, one cup of powdered sugar, the whites of three eggs beaten to a stiff meringue, one tablespoonful of cornstarch wet with the cocoanut milk if sweet, if not, with water; one teaspoonful of rose water; whip meringue and sugar together, add cornstarch, cocoanut and rose water. Stir well and drop on buttered paper by the spoonful. Bake in a quick oven. Eat cold.

STEWED APPLES WITH RICE.—Scoop out the cores and peel some fine russet apples and stew them in clarified sugar. Boil some rice in milk with a pinch of salt, and sugar enough to sweeten it. Leave on the fire until the rice is quite soft and has absorbed nearly all the milk; place in a dish; arrange the stewed apples on the rice and put in the oven to remain until they are of a golden color.

BOILED CIDER APPLE SAUCE.—One-half bushel sweet apples, four pounds of sugar, a few quinces; put in sweet cider enough to cover the apples; boil and skim for four or five hours. This is superior to the old-fashioned boiled cider apple sauce, which was made of cider that had been boiled down separately, instead of doing all the cooking in the same operation.

MILK MUSH.—Three cups of hot milk, one cup of boiling water, one scant cup of white Indian meal, one even teaspoonful of salt. Scald the salted meal with the boiling water, and stir into the hot milk; boil in a farina-kettle for 20 minutes, stirring all the time; beat hard at the last, and serve in an uncovered dish. Eat with sugar and cream.

PLAIN MINCE PIE.—Two quarts of chopped meat, two quarts of chopped apples, one quart of sugar, one pint of molasses, one pint of water in which the meat was boiled, one quart stoned raisins, one tablespoonful of ground cloves, two of cinnamon, two nutmegs, two tablespoonfuls of salt; moisten with cider.

BREAD FRITTERS.—Cut thin, round slices of bread, butter them very thinly, spread with jam and stick together in pairs. Fry in boiling lard, after dipping them in a batter of one egg, one pint of milk, a pinch of salt and flour enough to make a pancake batter. Pile high on a dish and sprinkle with sugar.

WHITE MOUNTAIN CAKE.—Four eggs, two cups of sugar, one cup of butter, one and one-half cups of milk, four cups of flour and two teaspoonfuls of yeast powder. This makes two loaves.

WHITE CAKE.—Whites of three eggs, one cup white sugar, two teaspoonfuls of cream of tartar, one of soda, one-half cup of sweet milk, butter size of an egg, three cups of flour.

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Spray Pumps—Woodin & Little.
Yerba Buena Jerseys—Henry Pierce.
Seeds—Thos. A. Cox & Co.
Barnard's Business College.
West Jersey Nursery Co.—Bridgeton, N. J.
Poultry—H. J. Godfrey, San Leanero, Cal.
Seeds—Hiram Sibley, Rochester, N. Y.
Dividend Notice—S. F. Savings Union.
Golden Gate Incubator Co.—East Oakland, Cal.
Pacific Incubator Co.—Oakland, Cal.
Seeds—The Storrs & Harrison Co., Painesville, O.
See Advertising Columns.

The Week.

The rain has come, although up to this writing, Wednesday afternoon, it does not appear how wide or deep the downpour may prove. The manner of its coming affords a timely illustration of the fact mentioned in the RURAL two weeks ago that the rains come from the north, while the wind blows from the opposite direction. The statement is, of course, not new, and yet many people do not realize the fact. This storm was telegraphed from Shasta and Butte counties several hours before the first drop fell in this latitude. It is to be hoped that the storm will prove an earnest and effective one. It is not too late to do much good, although probably the shortness of the working season will restrict the area which can be seeded in time for profitable growth. Along the coast the rain will refresh the pastures, although they have been growing well and could have stood a longer drouth.

The coming of the rain, if it prove as generous as we now hope, will add much to the happiness of the New Year's holiday. It will wake up business, bring courage to the Legislature and to the people, one to do and the other to bear, and generally minister to confidence and activity.

A Happy New Year.

The friendly greetings we toss so freely about at the opening of a new year have a beautiful meaning and value. They mean that we have, for once at least, risen so far above the narrow life of self as to wish others well. This is no small thing to do. When one can sincerely wish only good for all others, he has got beyond self and come into the great, warm life of humanity. He has conquered enmity, envy and jealousy. This does not mean to overlook the wrongs and vices of others, for that would not be well-wishing. No greater evil can befall many people than to go on happy and content in their present way of life. It means when we can wish all others well, that we desire for them all honorable success and all proper enjoyment. There is a real value in this state of mind. It is a blessing to the one who possesses it as well as to others. It increases the joy of one who lives in that state, and it goes out in fragrant helpfulness and encouragement to all others. And how much we all need encouragement, and what a sweet inspiration there is in the thought that in the hurry of life we are not forgotten. Blessed will be the day when every human soul can say from the heart, "A Happy New Year!"

What a strange glow of enchantment always hangs over the dawn of a new year. We are not invited to move over old ground. The eye opens upon a new landscape and the ear bends to new music. There is no routine in real life. The external outlines may seem the same. We live in the same houses, do business in the same old office, shop, or store, and pass along the streets we have traveled for years; but the heart and mind do not remain the same. If the years are repetitions with any one, it is because the enthusiasm of the heart has been killed. Nature hates a stationary life as she does standing water. It is the activity of the ocean that makes its purity and cures the invalid who breathes its washed and filtered air. Hence the true soul is willing to let the past slip away, for the future is so fresh and new. So let every one make his calls, and pass around gaily his Happy New Year's greeting.

Those who aim at the highest ideals, who earnestly desire to make the most of themselves, have it as a habit to recall the past, and in the light of experience try and shape a better future. It may be well for us all, at least once a year, to let this busy world stand aside and take a thought of self, try and find out our bearings and see if we can make out where we are, and whither going. There is an indication of the fitness of things that prompts men to begin new studies, enterprises of business, or start on a journey at some fresh period of time. The clock-work of the universe is so arranged as to furnish many favorable opportunities. Time is not so much a line as a circle, and when one cycle is complete, a new day, week, month or year comes to start us all in new movements or enterprises. And there is no better time than at the opening of the new year. All men instinctively feel that this is a good time to close old books and open new ones. That it is a fitting hour to open a new account with Time. True, we may have made many good vows and resolutions and soon forgotten them. But it is better to flutter a broken wing than not attempt to fly. It is better to sail toward better things in a leaky boat, bailing it out all the way, than not to sail at all. Forward! is the word of command borne in upon us by the new year. It says to us all, make amends for the errors and follies of the past year by extracting all the honey out of the coming one. Let not the dead past stand between us and the fair promise of the future. It is an old saying that it is easier to preach than practice, but the RURAL sincerely wishes all its patrons, friends and readers a HAPPY NEW YEAR.

IRRIGATION.—It is now rumored that Lux & Miller and Haggin & Carr have agreed to a division of the contested waters and will stop litigation. Nothing is definitely known of such an arrangement, however, at this writing. If these two contending parties hold themselves aloof from Sacramento this winter, it will possibly aid in fair discussion and decision on the questions involved.

Fruit Movements in Southern California.

The inability of the various competing transportation lines to agree on rates, and the frangibility of the numerous compacts into which they enter, bid fair to do California producers good service again. As a matter of fact, if it could be demonstrated that competition would always exist between different companies, the transportation question would quickly settle itself. There should, of course, be free scope for competition in carrying, as in other lines of business, and then rates would soon adjust themselves upon a fair basis.

A turn of affairs which now seems imminent promises to help our Southern California orange-growers in quite a satisfactory way. The following statement of affairs is given by an exchange:

Complications have arisen between the Southern Pacific Company and the California Southern by which the orange shippers of this State are bound to profit, although to what extent is not known as yet. A stiff rate of $300 a carload on oranges to Chicago, not affected in the slightest degree by the overland traffic war, has been maintained for a long time on both the roads and their Eastern connections, although other freight of greater value has gone at as low a rate as $60 a carload. It is now made known that the high rates were the result of an agreement on honor between the Los Angeles traffic agents of the California Southern and the Southern Pacific Company, made under the instruction of their head officials. Subsequent to this agreement on orange rates an understanding was reached between the two roads that no green fruit or raisins should be shipped on passenger trains at freight rates. Not long ago General Freight and Passenger Agent Wilkins, of the California Southern, made the discovery that, acting under instructions from Fourth and Townsend streets, the Southern Pacific Company's agent at Los Angeles had made a promise to a number of heavy orange shippers that if they would stand by the Southern Pacific during the present season they would be given a rebate of $25 a carload on all the oranges sent to competitive points. To this the shippers readily agreed. By careful inquiry Mr. Wilkins also learned that the Southern Pacific Company had contracted with the leading firm of raisin shippers in this city to transport all of its raisins on passenger cars at freight rates. By this action on the part of the Southern Pacific Company the California Southern feels justified in making what rates it chooses in order to get the business out of the southern points of fruit shipment this season. It is no longer inclined to make terms with the Southern Pacific Company regarding agreed rates, and all traffic agreements between the two lines are off.

If all these statements are true it will help the orange-growers materially in their contest for the Eastern markets. It is announced that Florida growers are hurrying their fruit northward for fear another freeze will catch it on the trees, and that there are large supplies arriving from the Mediterranean region. The Atlantic seaboard cities do not count upon California fruit reaching them in any considerable amount, on account of the high freights. A war in rates would send California oranges to all parts of the East, though the Western markets properly belong to us, and would naturally be supplied first.

There are many rumors arriving of great fruit enterprises in Southern California in the shape of canneries and drying establishments. Some of the rumors are denied, but there is no doubt that the industrial growth of the South will be magnificent during 1887, if a fairly prosperous season invites investments. It is announced by telegraph that Riverside will have a large cold storage concern, to be called the Inter-Ocean Cold Storage Company, and that they are putting up works at a cost of $40,000, having a capacity to cool for shipment 10 carloads of fruit per day. The fruit after being cooled is shipped in refrigerator cars and arrives in the Eastern market in as good condition as it was when first picked from the trees or vines. The company has experimented at Santa Ana during the past season to such an extent as to make sure of their position.

IMPROVED CATTLE IN OREGON.—The *Farmer and Dairyman* of Portland says that T. A. Fletcher, of the Indiana Blooded Stock Company, recently arrived at the Portland stock yards with two carloads of pure-bred cattle, 40 head of them Herefords and 4 Polled Angus. They were sent from the company's breeding farms near Indianapolis. The cattle all arrived in fine condition, in spite of their long journey.

ANOTHER overland railroad rate war seems imminent—whereat the tourist will rejoice. While the S. P. folks profess to be holding up to their schedule rates, cuts of $10 to $20 are said to have been made on the A. & P., with prospects of speedy increase.

CERTAIN parties have in contemplation the establishment of a flax factory in Menlo Park.

Better Rates for Payment in Advance.

Wanted—20,000 New Subscribers in 1887.

We are desirous of furnishing the RURAL PRESS to subscribers at as low a price as possible without sacrifice to ourselves or lessening its good qualities as a clean, handsomely printed and valuable reading journal. While we cannot see our way to reduce the regular price below its present rate of $3 per year, we have determined to try the plan of offering greater inducements for all subscribers to pay as far in advance as possible, hoping thereby to greatly increase the number of our patrons, and, if possible, improve its issues from time to time.

Therefore, during a period of sixty days from date, to all subscribers paying $3 in advance we shall give thirteen and a half months (one year and six weeks) credit. For $1.50 in advance, six months and three weeks. Subscribers delinquent less than one year will be charged at the rate of $3 a year up to the time of paying, and will be allowed two months and an extra No. for each fifty cents paid in advance. In case any arrearages should occur beyond 12 months, $3.50 a year will be charged. All agents and clerks are required to adhere to these terms. No new names entered on the list without payment in advance.

All our premiums are offered under these terms, except that for seeds.

It is not at present possible for any firm on this coast (if indeed anywhere else) to offer better rates than these, for any length of time, and do justice to themselves while furnishing as good a paper as the PACIFIC RURAL PRESS.

Jan. 1, 1887.

Life, Liberty and the Pursuit of Happiness.

It is doubtless the right of every man to decline to work for any other man or any corporation if he be not satisfied with the terms they offer, but it is not his right to forcibly interfere with others in working on such terms as they choose to accept; and when men conspire and resort to violence with the purpose of compelling another to carry on a business for their benefit on such terms as they may dictate, they become enemies of society.

The rioters in San Francisco who last week attacked peaceable citizens in the pursuit of their lawful avocations, destroyed property and even assaulted municipal officers, have injured the noble cause of labor incalculably by their mad outlawry. They tend to prove the truth of the assertion that "the tyranny of organized labor is full as remorseless as that of organized capital." And the perpetrators of such murderous acts as have been attempted here the present week, by those who deny other men's right to "life, liberty, and the pursuit of happiness" except on such conditions as these lawless banditti themselves prescribe, should be hunted down by the combined powers of the whole community and meet the speedy fate of J. Wilkes Booth and like assassins. The representatives both of labor and capital should join the officers of the law in detecting and bringing to justice these cowardly masked miscreants.

GRAPES FROM SPAIN.—Weinstock & Lubin, of Sacramento, have recently favored us with a sample of Almeria grapes which grew on the Mediterranean coast of Spain and came, packed in corkdust, across the sea and through the wintry weather of our Eastern States. The berries are of a light-green color and shaped much like the Cornichon. They are watery and insipid in flavor even beside the Flame Tokay, and have little to commend them as a table grape, save their capacity for enduring a long journey. But, considering that they have traveled 7000 or 8000 miles, they are in wonderfully fresh condition, and we watch with no little interest and curiosity to see how long, in their corkdust stronghold, they will withstand decay. It may be added that these are the grapes which have hitherto found so large a market on our Atlantic Coast. The arrivals from Almeria in New York for the season of 1883 were reckoned at 112,000 50-pound kegs; for 1884, 50,000; for 1885, 56,000; and for 1886 (Sept. 15th to Nov. 15th) 159,000 kegs. (The falling off of shipments during the years 1884-85 was chargeable to heavy rains in the vineyard region.) Wherever our native fruit can be laid down beside the imported, the California grapes must be given a decided preference to the Spanish.

The Wool Interest.

As Congress has reassembled, we are greeted with new rumors of the purpose of the reformers, either to put wool on the free list, or to still further reduce the protective duty upon it. The telegraph announces that "free wool" is one of the items in the scheme of the Secretary of the Treasury, and almost at the same time comes the following timely announcement from Washington, by telegraph:

If the revenue reformers can revise the tariff this session, they propose to put wool on the free list. The report issued to-day by the State Department on the woolen mills of Scotland, by Consul Malmrose, of Leith, shows what the laboring men of the United States must contend with to compete with foreign woolen manufacturers who have free wool. The average weekly wages paid men in the Scotch mills is as follows: Carders, common hands, $4.38; second hand, $5.11; spinners, $6.08; weavers, $7.30; scourers, $5.11; shearers, $4.38; pushers, $4.38; overseers of dyes, $8.51; slushers, $4.38; blacksmiths, $6.08; knotters, $2.92; darners, $3.89.

One would think that these figures would open the eyes of the reformers to the evil which such a scale of wages would work in this country. Can we afford to reduce our wool interest to competition with such priced labor?

J. D. Weeks, in his special report on the late national census, furnishes some interesting matter concerning the woolen industry of the country, which is summarized by the Boston *Journal of Commerce*, as follows: The data which he was able to gather were, to him, quite satisfactory, which, of course, make it more acceptable to the general reader. With very few exceptions, the running time of woolen mills is from 10 to 11 hours a day, the latter time being mostly in vogue in 1880; but within the last year or two several States have legislated to the effect of constituting 10 hours as an average day's labor, which probably brings the 10-hour and 11-hour plans about on an equality, as to the number of establishments adopting them. It appears that in some parts of the country, mills are operated from sun to sun. Mr. Weeks does not discover any special change for the better, in the efficiency of labor, except that which follows experience. Improvements in this respect relate more to individuals than to the entire labor force. The manufacture of higher grades of goods impels the employment of efficient labor, or the best that can be secured, and when this cannot be obtained from the local population, recourse to the factories of Europe is not infrequently made. But the lack of gain in the efficiency of labor is more than made up by the great advance in the efficiency of machinery, which has reduced the occupation of the mill hand, in many particulars, to that of a mere tender of a machine. Where skill is mostly observed is in the directing power of the person in charge, whose education must be derived from a theoretical and practical training in the technics of his vocation, for the accomplishment of the best results. Perhaps no improvements in machines have been so noticeable as in the devices for spinning and weaving. In the first respect, the changes for the better have been the work of comparatively very recent years, by reducing the cost of labor for spinning yarn fully one-half. In the second respect, the progress has been only less marked, by effecting a reduction in the cost of labor and increasing the amount of production, without diminishing the earnings of the employe.

One of the principal woolen factories in the country is the Fitchburg, Mass., mill. That mill is taken by which to show the progress which has been made in the economy of woolen manufactures during the last 20 years. At this mill the "cost of labor per yard of 3–4 standard cassimeres" was 25 cents in 1865, 25½ cents in 1870, 18½ cents in 1875, and 19¾ cents in 1880. Though the cost of labor was less per yard in 1880 than in 1865 or in 1870, the percentage of wages to cost of the manufactured goods was the reverse, being 12¾ per cent in 1865, and 12½ per cent in 1870, to 29⅓ per cent in 1880. The same relative condition has been the experience of a number of other mills in New England. This is to be accounted for in the less cost of the materials that enter into the fabrication of the goods. It further shows that wages have not suffered in reduction, in proportion to the fall in the prices of merchandise, raw or otherwise, and to this extent labor is better paid to-day than it was 20 years ago.

To carry out the scheme for free wool would be to turn the course of wages backward and to make unprofitable the invention and investment which have brought into existence our improved mechanical appliances. More than that, it would reduce the price of wool so that our grand wool-growing interest would be swept away. We do not think the country is ready for any such sacrifice, in fact the November elections clearly declared that it did not favor such a course.

Twine in California.

In the announcement of seeds offered for distribution by the University, which we publish on another page, will be found mention of fiber flaxes and the intimation that the growing of the crop may be profitable if suitable machines and processes are used to prepare the fiber for the twine-makers. We are assured that the manufacturers are quite ready to use the material when it is offered them in suitable form.

One of the specialties of the Oakland cotton factory is the manufacture of twine—the curiously wound balls of white cotton twine which are so much used by traders in tying up little parcels, and by the ladies in crocheting many of their little table and mantel ornaments, etc. The process of winding these balls is curious and interesting, and is done by an ingeniously devised piece of machinery, by means of which one girl or boy may wind 20 or 30 balls—according to the size of the machine—in less than five minutes. There are twines and twines in great number and variety. Few persons have any idea of the immense consumption of this article. One of the greatest demands comes from the farmers in the Eastern States, who, it is said, consume 35,000 tons annually on their self-binding harvesters.

In California we use twine-binders too, especially in the coast valleys where the fields are not large enough for the profitable use of the combined harvesters, and it would be quite an advantage to have the twine manufactured on this coast. The twine used on the self-binder is generally made either of Sisel or Manila hemp. The Sisel is the cheaper material, but is not so strong or durable as the Manila. In some twines a mixture of the two is employed. For binder purposes the twine should have 16 turns to the foot, and a length of three feet would have a breaking strength of not less than 70 pounds. The twine must be carefully made, free from swells or knots, or it will not run smoothly through the knotting device of the binder. The average consumption of twine on a binder harvester is two pounds per acre. About 1200 feet of twine per acre is required. It costs the farmer about 25 cents an acre for his twine. Allowing 5 pounds to the mile in length of twine, the total consumption of Eastern farmers would make a length of string sufficient to go more than six times around the earth. Manila hemp makes much better twine than any other fiber, being stronger, smoother and more durable. The raw material costs more and its twine sells for more than Sisel hemp, but the Manila twine goes further and is actually cheaper in use for the farmer; but this fact, however, is not appreciated by him, and he sticks to the Sisel twine because offered a little less per pound than the better article of Manila. Then, again, the Sisel twine breaks much oftener while running through the binder than the Manila. At every break the farmer must stop his machine and spend 10 or 20 minutes to fix up. He never thinks of charging his lost time against his poor twine. As long as he gets it for a cent or two less than the better article he is perfectly satisfied, no matter if it does bother him.

If we do not use such a large amount of twine in proportion to our wheat crop in our way of cutting it, we use far more in sacking than they do at the East, and thus the use of twine by the sack-sewers on the combined harvesters or with the ordinary thrashers becomes a large item. After this comes the large consumption of twine in nets, in wrapping bundles, etc., and it becomes quite apparent that it will be an important consideration to have it manufactured here. We trust the growth of fiber flax and other textiles may be found profitable in this State.

THE building of the Santa Rosa & Benicia Railroad is now contracted for. The work is to be commenced within 60 days and finished by January 1, 1888. It will give employment to 500 or 1000 men. The people of Santa Rosa appear in fine spirits at the state of the enterprise.

California Climate and Buckskin.

THERE are 20 glove factories in this State, half of which are in San Francisco. The extraordinarily rapid growth of the glove-making industry is due to peculiar advantages we possess, the principal of which is that California-tanned buckskin is the best in the world, as is universally acknowledged. Most of the gloves manufactured here are made from this buckskin, and the market for them has extended to all parts of the Union. The reason for the superiority of our buckskin is that our tanners employ the best-known method of tanning the skins. It was learned from the Indians, and is a close imitation of their method, with some improvements. This is what gives to our buckskin the widely-known name, "California Indian-tanned buckskin." This process of tanning is much more dependent on the climate for its success than would ordinarily be supposed. An even temperature and mild weather is especially desirable, and on this account the business has been much more successful in this city than elsewhere. One firm, employing 50 hands, is now engaged exclusively in tanning glove leather and dressing the various kinds of furs used for trimmings and linings. This tannery alone turns out about 100,000 buckskins, 6000 sealskins and 5000 dogskins every year. From one-third to one-half of this amount is sent to Eastern manufacturers, and that business is rapidly increasing. In one shipment made to the East last spring there were 100,000 pounds of buckskins. The principal reason for the popularity of California buckskin is because it is thinner and softer than the Eastern oil-tanned buckskin. In the latter process lime is employed, which makes the leather thick, thereby detracting from its wearing qualities and adding to the clumsiness of the gloves. Attempts have been made in the East to tan buckskin by the California process, but with very indifferent success. The leather is never so pliable and is harsher to the touch. It seems as impossible for Eastern tanners to equal our buckskin as it is for American tanners to equal the superior glove-kid leather that is imported from France. The constantly increasing popularity of California buckskin is proved by the advertisements of Eastern manufacturers who all claim to make their gloves of genuine California buckskin. This is true even in New York, where most of the gloves are made. Consumers in those States soon learn of the superiority of our leather, and invariably call for gloves made of it.

ALL ABOARD FOR CHICAGO!—The last carload of citrus and other fruits for the display at Chicago was started from Sacramento attached to the overland train on Thursday of last week. The *Record-Union* says there was a large number of people at the depot to witness the departure. The shipment was accompanied by P. E. Platt, J. J. Morrison and R. B. Blowers, directors of the Citrus Fair Association, who go to conduct the Chicago Citrus Fair, in connection with E. J. Gregory, who left for the East on Monday evening, and D. N. Honn, of Red Bluff, and Mr. Cutter, of Oroville, who were to follow on Friday or Saturday. At Auburn the train was greeted by the firing of guns, music by the brass band, the waving of torches and transparencies, and cheers from the assembled populace. The demonstration was intended as a compliment to Mr. Morrison in particular, and to cheer and stimulate the committee in general by assuring them of the people's interest in their mission.

WHOLESALE ENGINE-BUILDING.—The *Bee* of the 24th ult. states that the Southern Pacific Company has ordered the construction in its Sacramento workshops of 37 engines, some of which are to be 19x30 and others 20x30—the largest-sized engines in use. Their construction will cost more than $450,000, which amount will be expended principally among Sacramento workmen. These engines are for use on the Oregon & California, California & Oregon, and other Southern Pacific roads, and work upon them will be begun at once. There are now nearly 2000 men employed at the shops in Sacramento, and there is a great quantity of work on hand. The construction of 37 additional engines will give employment to many more men and add vastly to the already large sum paid out monthly by the company.

ENTOMOLOGICAL.

Worms in the Apples.

EDITORS PRESS:—It is a good time now to talk about the codlin moth. The past year has been noted for the abundance of this insect nearly all over our State. Some of our horticulturists in Santa Cruz county had a pet theory that this moth would not flourish so near the sea, or in our peculiar climate, or for some other mythical reason. That theory has been exploded. In Ventura county they have another theory, the smell of coal oil which comes from the submarine oil springs is supposed either to kill or prevent these insects from spreading.

In our neighborhood an experiment has been tried. An orchard, isolated, about one mile from other trees, in which the insect had become very abundant, was cleared entirely of its fruit in June, when it was supposed the eggs were all hatched and the worm securely in the apple. It was thought that this would make a clean sweep of the animal, and quarantine afterward would prevent its reintroduction. This was done on the theory that the codlin moth can *only live* on the apple, pear, and fruit of that kind.

Who can enlighten us on this point? I have an idea that the codlin moth cannot be disposed of in that way. While there are wild roses, manzanitas, and other plants in the woods that bear fruit similar to the apple, may not this insect forage on them?

Again, the means of transportation of the codlin moth are so numerous that quarantine is very difficult. They may be carried in an old coat, or wrapping about goods, furniture, trees, and a thousand other ways. In fact it is strange they have not spread more rapidly. And I fancy if we depended alone on our intelligence and skill in trapping, destroying, and preventing them from reaching our orchards, we would be overrun and eaten up by the codlin moth larvæ.

But there are environments of seasons and of foes, that come to our aid, often when we least expect them. Standing on the plank sidewalk one early morning after a rain, I saw swarms of winged insects (not codlin moths) coming out from under the boards. The air was full of them, flying and spreading in all directions. And while I stood considering the source, direction and destiny of these things, I noticed some small sparrows coming out of the garden near by and raiding the insects.

The sight was suggestive; for only a little while before the gardener had been shooting these birds because they plucked a few cherry blossoms for the honey they contained; and later when his apples were grown, behold! they had worms in nearly every one.

May it not be that one bird will destroy more codlin moths in one day than two hired men? And suppose the birds destroy some fruit—that is not half as bad as a worm in each apple.

Santa Cruz. C. L. ANDERSON.

Remedies for the Codlin Moth.

EDITORS PRESS:—I would like to give two remedies for the codlin moth, and if used as directed am sure it will clear an orchard of those pests. I have used them both in Pennsylvania, and think they will work fully as well in California.

The first is: One tablespoonful of Paris green to two gallons of water (or about one pound of the same to 45 gallons of water). It is best to use the small quantities, as they can be mixed better. The trees want to be sprayed when the fruit is set and about the size of a pea, and before the calyx turns down. The wash is perfectly harmless, as the growth of the fruit and the winds throw it off before the fruit is ripe. It will prove of very little use if used at any other time than above stated, and one application is enough.

The other remedy is to make a strong solution of tobacco water, and to every five gallons add one-fourth pound of whale-oil soap, and after spraying the fruit and foliage, wash the trunk to the ground. After the last rains paint the trunk with a solution of cow manure and sulphur mixed in the tobacco water. This serves as a preventive in keeping the larvæ from climbing up the tree. This latter remedy is as good as Paris green, if used as directed.

The method for making tobacco water is to put the stems into a sack and pour boiling water on and let it stand in a barrel for a few days before squeezing out. JAMES O'NEIL.

Haywards, Dec. 20th.

OUR venerable friend and correspondent, John Taylor, of Mt. Pleasant, favored us with a call in person not long ago. His agricultural and ethical contributions from Tuolumne county these many years have made him as a familiar acquaintance to the readers of the RURAL. He bears the recent demise of his wife with the resignation of a Christian and spiritual philosopher. Since our issue for December 25th went to press the mail has brought us some sweet and kindly Christmas thoughts in his handwriting, which we have on file against the return of the holiday season.

FRUIT MARKETING.

The Fruit Problem.

EDITORS PRESS:—Since you have so kindly opened the columns of your paper for the candid discussion of the problem of Eastern shipment of fruit, I will give a few of my ideas. Of course, we will now have plenty of prophets who will point their finger at the Union and exclaim: "I told you so. I knew it. I told you that the California Fruit Union would be a failure," who, at the same time, never did anything to encourage or favor the Union, but have done all they could to antagonize the Eastern shipper and the producer, and the result has been a disastrous season to the fruit industry.

We opposed the Union from the start. But, as it was, we submitted cheerfully to the voice of the convention, and joined hands in good faith with the Union; took stock and shipped the first 4000 boxes of early apricots and peaches through the Union to Chicago. While shipping through the Union was satisfactory to some, to many it was not.

That some other plan must be adopted is evident to all. Just what that plan is, no one seems able at present to explain. We heartily indorse the auction plan for selling our fruit as the next experiment, and would recommend Porter Bros. Company as the commissioned agent for Chicago.

That the 15-car train was wrong, everybody is now ready to admit. That it was the death-blow to the fruit market, no one pretends to deny, and so will the 10-car train prove disastrous to the fruit industry. To furnish even 10 cars of green and perishable fruit when the mercury is standing at 110° in the shade, the producers or shippers are compelled to crowd in fruit that is too green, fruit that is too ripe, fruit that is too small, fruit that is picked in the heat of the day and packed when it should not be, in order to make up the train so the producer or shipper might have the benefit of the reduction—the train rate. (I know of my own personal knowledge that shippers bought and shipped fruit that was not fit to feed to hogs so as to make up the train.)

Many producers shipped much inferior fruit under the impression that they could make it pay at the 15-car train rate. Hence the great quantity of poor stuff sent East the past season. To make up a train of 10 cars, 10 tons to the car, 200,000 pounds of green and perishable fruit would be gathered promiscuously and thrown together in the shade, rushed and thrown on a market after a nine-days' journey. How much better will the 10-car train be than the 15-car train? Just one-third, no more. Many of the producers preferred to pay $600 per car the past season and have their fruit go when it was ready and go on passenger time, than wait and ship on the fruit train at $300 per car. If this proves anything, it proves that what we want and must have is a uniform rate on fruit, whether for one car or for 10 cars. The question is asked, how are we to obtain from the railroad the proper concessions? The easiest thing in the world! Let the fruitmen unite, and, like old Gen. Jackson, swear by the Eternal that they will neither ship nor sell to any man one pound of green fruit to be shipped over the railroad till they give the shipper and producer a reasonable reduction on fruit and move the fruit as it should go, one car or a dozen cars, at a uniform rate. Can it be done? Certainly it can. Did not the canners a few years ago combine and form an exchange to rob the producer of his fruit? They were not willing to pay even a living price—in fact they would not offer anything. They knew it was a perishable product and set a snare, but were caught in their own trap. A few of the leading apricot-growers in this early locality just quietly bought material, made trays, and when the 'cots were ripe, went to drying. The canners kept still, took a walk each morning down to the store—but no apricots. The mercury rose to 112°; still no apricots. The canners now got uneasy and rushed up here, glad to pay two cents for 'cots. So ended the Exchange. And now, after years of planting out multiplied thousands of apricots, thousands of young trees having come into bearing, the canners have come and contracted with four of our largest apricot-growers for their crops at two and three-eighths (2⅜) cents per pound for five years, delivered at depot.

Can the railroad be brought to time? Certainly they can. Don't you know the soul of the corporation lies in their pockets? Touch that and you touch them where it hurts. There have been 100 cars of green and perishable fruits shipped this season, at $600 per car, or $60,000; there have also been 300 cars shipped, at $300 per car, or $30,000, making the nice little total of $150,000, while the producers and shippers, as a rule, have lost money or not received a cent net proceeds. Relieve the corporation's pocket of this enormous sum, and if it doesn't regulate the fruit and accommodations, nothing will. However, before adopting my plan, I would suggest that the committee appointed by the fruit-growers at Sacramento secure from all the leading shippers their account sales received from the East this season, lay them before Mr. Stanford and the railroad magnates for their examination, and if they don't move the soul of the corporation, nothing but my plan will. Then let the producers unite and swear by the Eternal that they will neither ship nor sell, to be shipped over the railroad east of the mountains, one pound of green fruit till proper reductions are made on rates for moving our fruit; it may be that this and this only will do it.

We will now notice the sixth paragraph of Mr. Weinstock's preamble; also the third paragraph in his resolutions—not that we desire to criticise, but that we condemn them as being impossible to carry out. Here is the sixth paragraph of his preamble: "The need of proper inspection at this end of the line, vast quantities of inferior and imperfectly packed fruit having been permitted to go East, thus not only causing its owners serious losses, but also depressing the price of such good California fruit as happened at such time to be in the same market." And here is his third resolution: "That said management also establish regulations to control the quality, the weight and the manner of packing all fruit offered for Eastern shipment, and that its inspectors reject such fruits submitted for shipment as do not come up to the established requirements."

That sounds well, and looks nice on paper; but it is one of the impossibilities to carry it out. And I, for one, am glad of it. What right has any man, because he is more fortunate than I in obtaining fine fruit, to say mine shall not go into the same market to compete with his? No, sir! every man must and will ship whatever he wants to, and of just such quality as he has. That is every man's right. It is my privilege, and so it is every other man's privilege, to ship green fruit, ripe fruit, large fruit or small fruit. There is such a combination of difficulties in these two paragraphs that they must be left entirely to the producer and shipper. His gains and losses will regulate him in the quality and quantity as well as the packing. There is but one kind of fruit that can be condemned—that is, fruit that is over-ripe and leaking at the time of shipping, and likely to injure other fruit. And that must be done by the parties loading the car, and not the Exchange—which should have nothing to do with it. What right has any exchange or set of men to say how my neighbors and I shall pack our fruit, or what kind of fruit we shall ship? That must be left to the producers and the local organizations.

What! talk about condemning my fruit because it is not packed right? Why, even Porter Brothers and Mr. Earl don't know it all. I knew good fruit packed by their orders, every apricot wrapped in separate paper; and when it arrived in Chicago, only five days en route, every box was rotten, more or less, in the center of the box. Then I knew a Pike county Missourian who packed his apricots in a small 20-pound box without even a piece of paper, and they arrived in Chicago in splendid condition. Now I claim that both modes of packing are correct, and yet they are directly opposite to each other. Who shall be the judge whether the fruit is wrapped or not? The man who owns the fruit. The trouble is, the Union, or Exchange, wants to do too much. We must clip its wings and not let it soar too high. Let us come down to good, practical, common-sense business. What we want, and no more, is a well-regulated plan for moving our fruit when it is ready to go. There are two central ideas that should be kept in view by the Exchange: First, a well-regulated and practical plan to move the greatest amount of fruit at the lowest possible freight rates; second, it should open up the most extensive market it could, then leave the local organizations to arrange the minor affairs, giving every member, shipper or producer all the privileges that an Exchange could.

We submit the following resolutions, having embodied those of Mr. Weinstock that we could indorse and added others that practical experience has proved must be added to and carried out, though they are in a crude form and subject to amendment:

Resolved, That the fruit-growers, in State Convention, do hereby modify the by-laws of the California Fruit Union, so as to embrace the following resolutions, namely:

1. That all persons raising or shipping fruit for Eastern market be eligible to membership.

2. That such association, through its management, appoint a commissioned agent, in every town and city, that can use a carload or more of California fruit at a time. The commissioned agent shall be a commission merchant.

3. That the commissioned agent or commission merchant receive his pay out of commissions on produce consigned to him.

4. That each and every market be open and free to each and every member of the Exchange, whether producer or shipper.

5. That all subscribers to the California Fruit Union, with all the other subscribers, shall have the right to reserve the privilege to sell to whomsoever they please.

6. That members of the Exchange shall have the privilege of naming points of destination for their fruit; but all fruit sent through the Exchange must be sent to the commissioned agent, who is a commission merchant.

7. That all shippers, shipping through the Exchange, shall have the right to say how their fruit shall be sold by the commissioned agent, either by commission or by auction.

8. That the auctioneer's charges be paid out of the commission allowed the commissioned agent.

9. That there shall be one general manager; that he shall be located at Sacramento; that all cars ordered by any member of the Exchange shall be ordered through the general manager; and that the general manager shall be notified, at the time of ordering car, of its destination.

10. That it shall be the duty of the general manager to provide cars for the Exchange. It shall also be his duty to cause to be placed on a bulletin board, at every shipping point, each and every morning, the number of cars ordered the previous day and their destinations.

11. That it shall be the duty of the general manager to ascertain the freight rate per car for green fruit from Chicago to New York; also to Boston, to Philadelphia, St. Paul, Cincinnati, and every other city where the Exchange has appointed one commissioned agent, and to have all the rates of freight from Chicago to the other cities printed and kept on the bulletin board, at each and every shipping point in the State where a member of the Exchange resides.

12. The general manager shall ascertain the length of time required for a car to go from Chicago to New York, also to any other city where the Exchange has a commissioned agent. It shall be his duty to have the time printed and placed on bulletin boards, as the freight rates are at every shipping point where there is a member of the Exchange.

13. That the general manager shall act as secretary for the Exchange. That there shall be no salaried offices, except the general manager and directors.

14. That no producer nor shipper that does not belong to the Exchange shall have the privilege of the reduction of rates granted to the Exchange by the railroad.

15. That the commissioned agent of the Union in every city shall telegraph to the general manager in Sacramento every day the price of California fruit in his city, specifying each kind of fruit; that the general manager shall cause such information to be daily posted on the bulletin board in every shipping point whence there has been a carload of fruit shipped.

In behalf of our resolutions, they tie no man's hands, they take no market from any one, they give every man the same privilege. The small producers have the same privilege and same advantage that the large producer has. The unfortunate man with poor fruit can send it, providing he pays freight and expenses on it. All markets are open alike to producer or shipper; every member can ascertain, by going to bulletin board, where every car is destined, and can select his own market. If we understand the object of the Exchange or Union, it is not to enrich a few, but to find a market for the surplus of California fruit. In other words, we must have the utmost possible reduction in freight, that our fruit may reach the markets where multiplied thousands of hungry people are ready to consume it at a living price.

Winters, Dec. 10, 1886. G. W. THISSELL.

Mr. Weinstock Proposed for Manager.

EDITORS PRESS:—It is a fact generally conceded by all the stockholders, in order to preserve the existence of the Fruit Union, a general reorganization of its system and officers will have to be effected. With this object in view, we beg of you to give publicity to the inclosed from Mr. H. Weinstock, who, after urgent solicitation, has agreed to serve us as manager, and, we think, as president too, as the two offices should be combined, with a board of advisors composed, as he states, of at least a minority of shippers, as the last season has more than proved to us that their co-operation is necessary to success. It would occupy too much of your space to attempt to give the many reasons why Mr. Weinstock should be placed in this position, as the letters he has published and the explanations of his proposed plans made at the horticultural meetings at Sacramento expose a part and parcel of what will be introduced at the semi-annual meeting of the Fruit Union, to take place the 20th of January, 1887. After diligently searching the whole list of stockholders, we find no one more capable for the position. R. H. CHINN.

Vacaville.

Mr. Weinstock's Letter.

SACRAMENTO, Dec. 13, 1886.

Mr. R. H. Chinn, Vacaville—DEAR SIR: Your favor of the 12th inst. is here. In response permit me to say that I trust I merit the compliment your letter contains. I certainly do feel a deep interest in the future welfare of California fruit culture, not alone as a grower, but also as a business man and citizen. I know of no other industry upon which the future prosperity of our State so much depends, and I know of no other industry that has such excellent prospects before it as California fruit culture, provided the markets of the East are properly developed and controlled.

Regarding the question of officers for the Union, I fully realize the grave importance of making wise and judicious selections. The best systems that man can devise will miscarry and prove of no avail if executed without judgment or intelligence.

At present I am not prepared to suggest names for the positions of president and manager of the Union, as I do not know enough about the business capacity of the stockholders generally to warrant an intelligent opinion. I have been strongly urged by members of the Union to allow my name to be used in connection with the position of manager. I know of no work that I would perform with deeper interest and with more pleasure. Notwithstanding all the difficulties and obstacles that are sure to arise in the carrying out of the plan advocated, I have so much confidence in its merit that, with a unity of action between growers and shippers once established, I feel morally certain that the plan can be made much more successful, the markets of the East greatly enlarged, and the returns to shippers and growers more largely increased than by any other system hitherto attempted. But I am so situated that at present I do not see how I can do the work justice without doing serious injustice to other large business interests to which my time and energies rightfully belong.

Regarding the selection of directors, I would say that if a unity of action between growers and shippers is secured, it would be very advisable that the shippers have a fair representation on the Board, for the following reasons: First, because, as a rule, they are business men of wide experience. Secondly, they represent large interests and ship by far more fruit than even the largest grower. Thirdly, because they are thoroughly familiar with the Eastern market, the methods of packing, shipping, distributing, etc., and, as members of an advisory board, their knowledge and experience will be of much more value than that of an average grower. And lastly, I favor some shippers being selected as directors because it would bring more harmony and a better feeling between what last season were contending factions, and, if possible, would identify more closely the interests ot grower and shipper.

As to which of the shippers shall be selected for directors, I am not prepared at this writing to say. Personally, I have no preferences to express. But since they nearly all can be named on the fingers of one hand, and since all of them are well and more or less favorably known among the growers, it can be no difficult matter to select the best from among them.

I shall always be pleased to hear from you. Very truly yours, H. WEINSTOCK.

What the New Yorkers Think of It.

NEW YORK, Dec. 27.—H. S. Dewey, of the winehouse of Dewey & Sons here, in an interview to-day regarding the high prices charged for California grapes in this city, said: "There is really no reason why we should not have the beautiful Flaming Tokays and Black Hamburgs retailed all through the season, from 12 to 15 cents per pound. Some man with push and energy could take hold of the enterprise, organize it properly and make a fortune out of it, while supplying the public with the best and most healthful fruit that grows."

Mr. Everett, of the fruithouse of Miles & Everett, said: "The trouble is that there is no organization in the business. At present there is no one in the market who buys California grapes outright and sells them at reasonable advances. All grapes sold here are handled on commission, at every step of the way, from the grower in California to the hawker on the streets. Some commission man in San Francisco takes grapes to sell for what he can get for them, returning a certain percentage to the grower, who sends them on similar terms to some big commission-house in New York. The big house then turns them over to the little houses, and the little houses in small lots to the hawkers, and every time they change hands an increased sum is fixed, which must be returned by the persons who take them. In this way it happens that the lowest price for a carload of California grapes in fair condition in New York City is eight cents per pound. That rate, it may be thought, would leave a margin for great profit in handling the fruit, but every man who sells, all the way back to the commission-house in San Francisco, has to allow a percentage for somebody else; so there is not much profit in the business, and prices are inevitably high. Furthermore, the number of growers in California who are willing to let their fruit go on the commission system is small, and for the risks of business they must demand a rate equal to four or five times what they would sell at for cash. Let a company be organized, which will keep its agents among the California vineyards supplied with funds and ready to buy on the spot with cash; then let the grapes be brought here by quick freight and sold directly to retailers. There will be not only an enormous profit in it, but a business far beyond that done by the largest commission-house in New York during the season."

NEW YORK, Dec. 28.—In an editorial on the California fruit crop, the *Herald* says: The *Herald* offers its congratulation to the Golden State, the picket guard of the Republic on the West. We drink her wine, eat her grapes and admire her energy and patriotism.

FLORICULTURE.

Notes on Roses, Etc.

EDITORS PRESS:—It is with pleasure I notice the inauguration of a "Floral Exchange" through the medium of your valuable columns, and hasten to assist in the good work by offering a share of my modest garden for exchange.

There are, every planting season, hundreds, yes, thousands of plants uprooted and discarded from overstocked gardens throughout the State, which, could they be transplanted in ones less well stocked, would prove a mine of beauty to many of "us flower-lovers."

Now, Mr. Editor, there is only one way in which this thing can be accomplished, and that is for every one to come forward and send in his little list. I would not object to sending a big list, but if every one sends even a small one it will be the cause of transferring a large amount of beauty from one portion of the State to another.

The clipping submitted by your correspondent from San Mateo county, on the subject of rose pruning, is evidently written with the idea in view that the roses were on their own roots and not budded as most of the roses sold in our California nurseries are. It would certainly be a questionable proceeding to prune budded roses so severely as to send out shoots from the roots.

The advantage of a budded rose lies in the fact that, in our climate, you can make a tree of most any of the good growers; hence you do

not want shoots from the roots. On the other hand, roses on their own roots are easily managed, as they do not require so much care to produce bloom; but cannot be maintained as "standards" so readily, on account of their tendency to throw up shoots from the roots.

It would be quite disheartening to find your Marechal Neil producing choice Castilian or your Wm. Francis Burnett producing day roses; the latter phenomenon would not be so surprising as the former. ROLLA BUTCHER.

Santa Clara, Cal.

Exchanges.

Rolla Butcher, Santa Clara, will exchange from 26 to 50 named chrysanthemums, comprising a choice assortment of Japanese, Chinese, anemone flowers and pompon from Hallock & Thorpe, the great chrysanthemum growers, for an equal number of named chrysanthemums of other varieties or roses. Also a fine lot of carnation slips, pelargonium, myosotis, pyrethrum roseum, helianthus multiflora, plena, cobea scandens and a small lot of cosmos, and this latter is a fine autumn flowering plant, for dahlia tubers, bulbs of named lilies, tigridias, and named pelargoniums and carnations. List of chrysanthemums given on appplication.

Belle Ames, Sebastopol, Sonoma county, offers cuttings of roses, Prairie Queen, Baltimore Belle, Souvenir de Malmaison; and wants in exchange cuttings of Gen. Jacqueminot, Catherine Mermet; Bon Silene, La France and Marechal Neil.

Mrs. Julia Wightman, Booneville, Mendocino county, will exchange double white and pink hollyhock seeds, cuttings of *Ampelopsis Veitchu*, passion vine, Gen. Jacqueminot, Bon Silene, and Lord Macaulay roses, 10 varieties of chrysanthemums, for any of the following: Marechal Neil and Andre Schwartz roses, variegated and silver-leafed geraniums, and any double geränium, fuchsias, double and single varieties, or any very choice named roses.

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O. F. BERGMAN—Yolo and Solano Cos.
M. S. PRIME—El Dorado and Placer Cos.

The Latest Fashions.

Ladies' Toilette.

In this instance the toilette is pictured as made of a soft, warm cloth, showing a stylish mixture of several colors. The drapery entirely covers the four-gored skirt and is unique and stylish in effect. On the left side gore is arranged a panel that is hemmed at the bottom and has seven deep tucks formed in it, each tuck being surmounted by a row of fancy buttons. The rest of the skirt is covered nearly to the belt by a kilted drapery that has a deep hem and two deep tucks at the bottom, the plaits being quite wide and all turning one way, except the one nearest the left side back seam, which turns forward over the seam. A short round *tablier* is arranged on the gores, and its pretty draping is made by plaits at the belt and in the side edges. The upper-back drapery reaches nearly half-way down the skirt and is tucked and hemmed to correspond with the lower drapery, and its top is laid in kilt plaits and gathered, the result produced at the back being that of two deep flounces of about even depth. The basque is narrowly double-breasted and closed in the regulation style, with button-holes and buttons. The basque is shortest at the closing and square at the lower edge, and back of the closing it is somewhat deeper and falls in a point at the back edge of each side back. The center backs fall in two narrow tabs that are hemmed at the bottom and have two tucks made above the hem. The center and side back seams, under arm gores and double bust darts perform the fitting. The coat sleeves are ornamented at the back of the wrists with a row of three buttons. The collar is high and in standing style, and linen collar and cuffs are worn. For tailor costumes the mode is simple yet stylish, and will be developed in all kinds of cloths, the smooth, rough, lined and checked varieties being all favored. Camels-hairs, serges and woolens of all seasonable varieties are also effective made up in this way, and the panel may be made of contrasting goods if a combination be desired. Bead trimming, cord, pipings, etc., will often edge the plaits at the left side and in front, and may also edge the tucks and the *tablier*. In the event of such a decoration being chosen, the edges of the basque will be finished to correspond.



LADIES' TOILETTE.

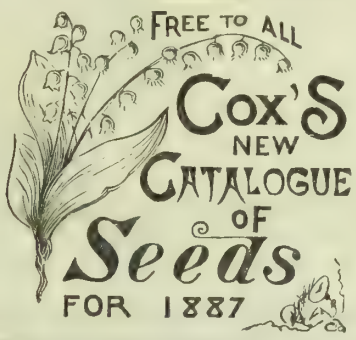
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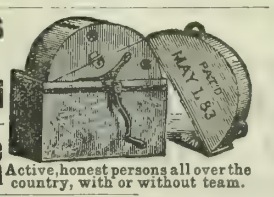
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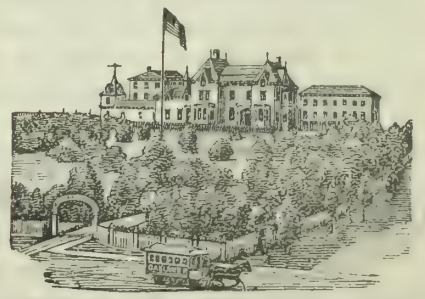
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A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

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A Remarkable Chance Offered.

124 acres of as good Fruit Land as there is in this State. About 40 acres improved and a good Orchard on it. Also two tracts of 160 and 166 acres each. Title guaranteed. Homestead and a pre-emption. The right to the two latter tracts will be relinquished. These pieces lie right in the mountains, and 200 acres can be cultivated when cleared up. There is plenty of good timber valuable for shakes, posts, or pickets; 1000 inches of the best water in the world for drinking and irrigating purposes; plenty of fish, deer, grouse, and bear. Also, 10 miles of the best mountain range for stock in the Northern part of the State. Twenty-five miles from the railroad and seven miles to the nearest village. A good price can always be obtained for produce; never less than 2 or 2½ cents per pound for potatoes. Water free on all the land.

Correspondence invited. Apply soon. Address, Ranch Owner, Box 2361, S. F.

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FRESNO COUNTY.

BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R, towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now being constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

THE WATER RIGHTS

Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, being 2½ times the usual amount supplied to colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is about $3.50 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without terms are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads.

Price, $25 to $37.50 per acre, on very easy terms to actual settlers.

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WEST COAST LAND CO.

SAN LUIS OBISPO, CAL.

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CAPITAL, - - - - - - $500,000.

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GEO. C. PERKINS,	JOHN L. HOWARD, President.
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ISAAC GOLDTREE,	R. E. JACK, Treasurer.
R. E. JACK,	C. H. PHILLIPS,
C. H. PHILLIPS.	Secretary and Manager.

THE PASO ROBLES, SANTA YSABEL, and EUREKA RANCHES,

Recently purchased by the West Coast Land Company, are now offered for sale in subdivisions.

This immense body of land, including 12,000 acres unsold of the Huer Huero ranch, belonging to C. H. Phillips, comprises 64,000 acres of rich, virgin soil. It lies in a compact body, in the center of San Luis Obispo county, and is within from 9 to 20 miles of the sea coast. It is covered with white and live oak timber, is one of the most picturesque bodies of land in the State, and requires

NO IRRIGATION.

It has an abundance of living water, and where not sufficient for domestic use, good water can be had at a depth of from 10 to 40 feet. It has an average annual rainfall of 21 inches, exceeding by six inches that of Santa Clara county, one of the most prosperous counties in the State.

The extension of the Southern Pacific Railway from Soledad southward traverses these lands for 15 miles throughout their entire length, placing the property within eight hours of San Francisco.

These lands are offered at from $10 to $30 an acre, and are all susceptible of the highest cultivation. In salubrity of climate, productiveness of soil and location as to market, they are equal to lands in Los Angeles and other counties, which readily bring from $100 to $200 and upward; and as to price and terms, offer the best inducements to those seeking homes on any part of the Pacific Coast. The survey of the

PASO ROBLES RANCH

Has been completed. The maps and catalogues are now ready, and will be sent free on application.

This ranch, containing 20,400 acres, has been subdivided into 230 lots. It is 12 miles from the sea coast, and is 20 miles north and west from San Luis Obispo city.

This ranch was one of the earliest granted by the Mexican Government and having been held by the same party for over 30 years, has never before been offered for sale. It consists exclusively of land of the choicest character, and is second to none in the State for the production of wheat, wine, fruits, raisins and olives.

TITLE, U. S. PATENT.

TERMS OF SALE.

One-third cash; balance in 4 equal payments at 2, 3, 4 and 5 years; interest, 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser. A deposit of $25 will be required in all cases to cover expenses of sale.

C. H. PHILLIPS, Manager,
West Coast Land Co., San Luis Obispo, Cal.

☞Send for Catalogue and Map.

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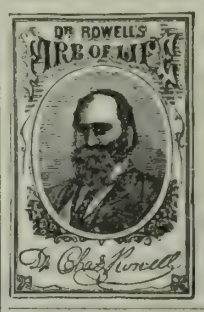
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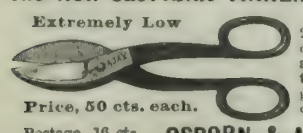
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Cutting edges, 2 inches; edges chilled and hard as steel, equal to the best steel goods in cutting qualities.

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EDUCATIONAL.

School Library Funds.

EDITORS PRESS:—The Committee on Education at the State Grange made the suggestion, presumably for advocacy before the next Legislature, that school "library funds" be made available, under certain restrictions, for the purchase of furniture and other uses, on the ground that most schools have an adequate library, etc., and that other uses for the fund should be found.

Let us look into the case a little. It may be, as the speaker suggested, that there are schools which have libraries suitable in every way, but in 20 years' experience, 15 of them as teacher in our school system, the writer has not found one district with a library such as should have been provided by the fund expended, or even fairly suited to the requirements of a country district, and he further makes the assertion that in such districts, taking an average, one-half of the fund is squandered; and, further, that, aside from a few series of standard literary works, a few juveniles and works of reference, the selection of books is generally pernicious.

As regards apparatus, a better state of affairs exists. The frequent changing of teachers, the large percentage of inexperienced teachers and ignorant and selfish trustees, are accountable for the situation in a great measure.

The intent of the law, providing a library fund, was to provide instructive and interesting reading matter and apparatus for those who were unable to fully supply themselves, and, as in all such cases, the providing of suitable cases or receptacles for the books, etc., the ruling of the State Superintendent of Public Instruction to the contrary notwithstanding.

County Boards of Education are authorized by law to make, and do adopt, list of library books, apparatus, etc., from which selections must be made by trustees. This law is universally ignored and the fund is expended according to the intelligence, ignorance or cupidity of one or more members of the Board of Trustees. Let the suggestion of the speaker become a law, and the door would open for any use of the fund, and for every school that would first consider the legitimate use of the fund, 20 would not consider it at all; the library would not be thought of till every other desired use of the fund was exhausted.

The tendency of legislation is to specify every use for every fund, and, in certain cases, even the time in which fixed portions of the fund may be used. It is generally admitted that such restrictions are wise, though occasionally working hardships.

Instead of trying to divert the library fund to other uses, would it not be well to enlarge its scope in its legitimate direction? Cabinets of natural history specimens would be the best of all instructors, being but sample leaves from the book of nature, and in the hands of competent teachers could be made of vastly greater use than libraries are now. Such collections would at once cause the addition to libraries of botanical, entomological, geological and other works on natural history. Exchanges would be made between districts, remote and near, and the many pupils of the Normal school would see that its collections would soon become the most complete possible. That the making of such collections would be of the greatest educational benefit to pupils, no intelligent person will deny; but the advantage to the State would be vastly greater, not only in a knowledge of its natural history, but in the number of investigators it would be training to observe and develop its natural resources.

I have spoken of competent teachers—there are hundreds of such in the State, but they cannot be expected to undertake and bear the expenses of such work. Country schools are allowed $500, or less, to each teacher, and when from this are taken the library fund, fuel, pencil, crayon, ink and other running expenses, beside insurance, painting, repairs of building, fences, etc., the remainder will vary from $300 to $400 to provide an eight-months' school.

As an illustration of benefits that would accrue to the State from such a course, let us refer to some of our insect pests. Does any one doubt for a moment that, had specimens of our insect enemies been properly placed in our country schools, they would have been recognized and attacked to far better advantage than they have, or that in many instances their ravages would have been nipped in the bud? I have seen a statement that, in Germany, the Colorado potato-beetle was recognized and summarily squelched by this course, and that their schools are provided with complete collections of such noxious insects as are liable to cause trouble or be imported.

I am glad to see a Grange official wake up to something that interests our schools. There is plenty of room for improvement in the country schools, and with a slightly increased outlay in teachers' salaries, to keep the better class of experienced teachers in the ranks, the efficiency of our system would be quadrupled.

It would be well for Grangers to wake up, to discuss the country school thoroughly, try to make it more useful, and instead of wasting the school fund by mismanagement, as is now done to a far greater extent than the public has any idea of, strive to make your schools efficient.

JOHN GRANGER.

John A. Logan.

The death of General Logan reminds us that the group of distinguished men born of our nation's great struggle has become very small. Lincoln, Stanton, Sumner, Wade, Wilson, Chase, Meade, Hooker, Thomas, Garfield, Hancock, Grant and others have gone, and so small at last has this group become that upon each new invasion of death we all wonder if any one remains to be a golden link between the past and present. So rapidly have our noble chieftains fallen into the tomb that many of the young men of to-day will only know their valiant services from the hearsay of history. Those who were fortunate enough to see Gen. Logan on his recent visit to this State may well be proud of the memory, for he was one of the illustrious group whose names are embalmed in history.

The death of General Grant was not a surprise. From the hour it was announced that he was seriously ill till he breathed his last among the tall pines of Mt. McGregor, the progress of the deadly disease was hourly telegraphed all over the land. The nation almost stood in silence around the bed of the dying hero and listened to his calm, brave words. But the death of General Logan was sudden and unexpected except to a few intimate friends who were advised of his danger. Though 61 years of age, he had the appearance of a man in robust health and the prime of life. His jet



THE LATE SENATOR JOHN A. LOGAN.

black hair showed no touch of frost. His face was full and unwrinkled. There was a certain spring and elasticity of movement that indicated the unimpaired vitality of a vigorous, well-preserved manhood.

Though Logan had for some time been a conspicuous figure in the local politics of Illinois, he first came to the front as a national character during the Civil War. No one untrained in the military art made a better record. That he had the genius to command is the tribute of Gen. Grant, under whose eye the most of his gallant services were performed. At Champion Hill he covered himself with glory. At the storming of Vicksburg he evinced the most deliberate courage. With a major-general's commission he was appointed by the President to the command of the 15th Army Corps on the death of McPherson.

From the close of the war until 1871 he filled various positions of honor. That year he was elected United States Senator, and was serving his third term at the time of his death. In the last Presidential campaign he was second on the Republican ticket, and many of his friends and admirers predicted he would head the ticket in 1888. Like most self-made men, Logan's mental powers grew slowly as the oaks grow. Perhaps his greatest intellectual achievement was the three-days' speech in the Fitz John Porter case. His work, "The Great Conspiracy," will become a standard in our literature. Senator Logan was a man of fine presence, magnetic, of indomitable will, a steadfast friend and a manly foe. He was extremely happy in his domestic life. On November 27, 1855, he married Miss Mary S. Cunningham, a daughter of Capt. Cunningham, of Shawneetown, Illinois, a lady of fine culture, rare social powers, who always took a deep interest in her husband's career and did much to aid him. She is not forgotten by a grateful people in this hour of her greatest affliction. His loss is more than that of a great party leader; it is a national calamity. Perhaps there is no man in the Senate who will be more missed.

A Neglected Market for California Raisins.

EDITORS PRESS:—Compelled by circumstancea, I have been loafing around the streets of this city since 5:30 A. M. this morning. Ever solicitous for Californian interests, I strolled round the groceries to take observations. I did not see one box of California raisins in the whole city. Only one grocery had a box of California prunes in the window. All seemed to have Malaga raisins of at least two grades, besides seedless raisins or Sultanas. I note, also, that the Spaniards intend to hold the fort as long as possible. Their raisins are finer and better packed than any I had previously seen. The top layer is now packed, each separate berry pressed circular and placed in rows, as we pack cherries. The labels are more decorative than formerly, gay chromos of bull-fights with edgings of gold lace have replaced the old Arcadian lithographs. Surely here at our own doors it would be possible to get some grip on the market, especially with the suspicion of cholera, hanging round Spanish products, to work in our favor.

I came over from the new Vancouver City, the proposed Pacific terminus of the Canadian Pacific Railroad, last night. There also is another market that might absorb largely of California produce. The railroad has not yet reached Vancouver; and the rising city was destroyed by fire June 13th. Already some 400 houses demarcate a city that is no doubt destined to be another Pacific metropolis. Nature has provided an ideal site, and art (C. P. R. R.) is profusely assisting nature. Already a Catholic church crowns the hight, and a large hotel, masonry and brick, shows its first story on the ridge's crest.

Hotels, banks, stores and residences, some quite fine structures, are springing up rapidly, and there is a probability that the first cars of the Canadian Pacific Railroad will enter the town in a few weeks. Round-houses, workshops and wharves of the Canadian Pacific Railroad will alone suffice to make a town of most creditable dimensions, and if our Fruitgrowers' Union could send a drummer up this way, he would readily get orders for large quantities of California produce. Don't let us overlook *near* markets in our ambition to develop those wh ich are remote.

EDWARD BERWICK.

Victoria, B. C., Dec. 10th.

More Money for Your Work.

Improve the good opportunities that are offered you and you will receive more money for your labor. Hallett & Co., Portland, Maine, will mail you, free, full information showing how you can make from $5 to $25 and upwards a day and live at home, wherever you may be located. You had better write to them at once. A number have made over $50 in a day. All is new. Capital not required; Hallett & Co. will start you. Both sexes; all ages. Grand success attends every worker. Send your address at once and see for yourself.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING DECEMBER 21, 1886.

354,691.—SAW SETTER AND SHARPENER—J. P. Cobb, College City, Cal.

354,703.—SHINGLING SEAT—C. B. Huestis, Ukiah, Cal.

354,654.—SHEET METAL SEAMING MACHINE—Chas. Puddefoot, S. F.

354,809.—AMALGAMATOR—Rowe, Holmes & Wells, Eureka, Cal.

354,873.—CABLE GRIP—C. T. Ryland, Jr., San Jose, Cal.

354,667.—MOTOR—G. Sutro, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

PRESERVING EGGS.—The first prize on eggs preserved for three months at the London dairy show was won on a lot of eggs packed in sweet bran with the small ends down. The second prize lot had been rubbed with a mixture of olive oil and beeswax and packed in coarse salt. The third prize lot had been rubbed when new laid with mutton dripping, and then put in powdered dry lime. All these were in good condition for cooking at the end of 90 days. According to *Mittheilungen Landwirthschaft*, vaseline is a good preservative for eggs. The eggs should be thoroughly washed and rubbed with vaseline previously melted with three-tenths per cent salicylic acid. The operation should be performed twice, the latter one month after the former. On boiling, the skin of vase-

In the cure of severe coughs, weak lungs, spitting of blood, and the early stages of *Consumption*, Dr. Pierce's "Golden Medical Discovery" has astonished the medical faculty. While it cures the severest coughs, it strengthens the system and *purifies the blood*. By druggists.

For colds, fevers and inflammatory attacks, as well as for cholera morbus, diarrhœa, dysentery or bloody-flux, colic or cramps in stomach, use Dr. Pierce's Extract of Smart-Weed, composed of best Grape Brandy, Smart-Weed or Water Pepper, Jamaica Ginger and Camphor Water.

Our Progress.

As stages are quickly abandoned with the completion of railroads, so the huge, drastic, cathartic pills, composed of crude and bulky medicines, are quickly abandoned with the introduction of Dr. Pierce's "Pleasant Purgative Pellets," which are sugar-coated, and little larger than mustard seeds, but composed of highly concentrated vegetable extracts. By druggists.

THE ROLLER ORGAN.—The Roller Organ is one of the most melodious of the many modern automatic musical instruments of late introduction on this coast. Much ingenuity has been displayed by inventors who have sought to make an instrument which could be recommended as substantial and serviceable, but fine tone has always been the greatest desideratum in this class of instruments, and manufacturers have seldom been more than partially successful. In the Roller Organ, however, which is now being sold in this city by C. H. Hammond, General Agent, at 2224 Mission street, between 18th and 19th, and at 108 Third street, it is claimed that a combination of the three most desirable qualities in these instruments has been secured. It is apparently a compact and durable instrument, and, judging from the indorsement it has received from music-loving people, its tone is all that could be desired in such an instrument. The Roller Organ employs no paper; but its music is obtained from a roller furnished with pins similar to those of a music box. These pins operate upon valve keys, made of hard steel, the roller being driven by suitable gearing, which also works the bellows. All the working parts of the instrument are easily accessible, and are made of solid metal, the rollers and keys being mounted on iron castings, and the whole as durable and well made as the best sewing machine Nothing has been omitted to give this beautiful instrument its crowning qualities of extreme simplicity and durability. The instrument performs all kinds of music—sacred hymns and popular songs as well as operatic selections, and has been strongly recommended for adoption in Lodges where it is desirable to open and close with singing, the organ being an excellent instrument for an accompaniment for the voice. The instrument is sold in this city by C. H. Hammond, General Agent. Depot, Eureka Bazaar, 2224 Mission street, between 18th and 19th streets; also at 108 Third street.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

The advertisement of the old reliable establishment, The Storrs and Harrison Co., Painesville, Ohio, appears in this issue, offering flower and vegetable seeds, roses, plants, grape vines, fruit and ornamental trees. They are running one of the most complete nurseries in the world, and issue a large, attractive catalogue which they will mail you free, on application. They have no traveling agents, and are only responsible for orders sent direct. Give them a trial and save dealers' commissions. They guarantee satisfaction.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

H. J. GODFREY, San Leandro, Cal., first-class P. Rocks and Wyandotte eggs, $2 per setting; no circulars

PABLO POULTRY YARDS, San Diego, Cal. Large establishment. Send for catalogue.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

T. D. MORRIS, Sonoma, Cal. Toulouse and Emboden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

J. N. LUND, Box 116, Oakland, Cal. Wyandottes, Langshans, L. Brahmas, P. Rocks, B. Leghorns, B. B. R. Game Bantams, T. Guineas, Hom'g Antwerp Pigeons.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

O. J. ALBEE, Santa Clara. Thoroughbred poultry.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas and Plymouth Rocks. No fowls for sale. Eggs from first-class stock, after Nov. 1st.

CALIFORNIA POULTRY FARM, Stockton, Cal. Send 2-cent stamp for Illustrated Catalogue.

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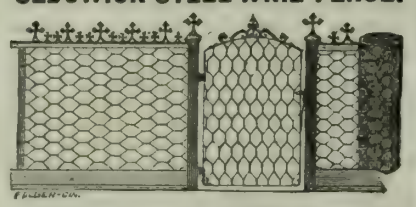
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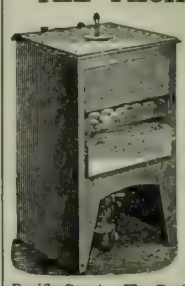
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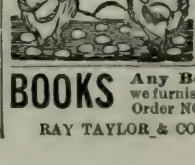
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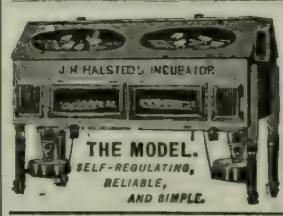
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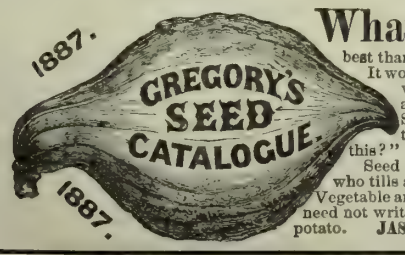
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Apricot, Plum, Prune and Peach on Myrobolan Plum stocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine, Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

Home-Grown RYE GRASS SEED.

In Lots of Half a Ton, at 10 cents per pound.

JOHN W. FERRIS,
Black Point, Marin Co., Cal.

SOW EARLY. 30 lbs. to the acre.

ALFALFA SEED.

In carload or smaller lots. Fresh, clean, and free of foul seed. Also all varieties of Grass, Clover, Garden, Flower, and Field Seeds. Send for Catalogue and special quotations on large orders. W. R. STRONG & CO., Sacramento, Cal.

DEL MONTE VINEYARD NURSERY,

FRESNO, CAL.

For Sale—White Adriatic Fig Cuttings of my own importation. Grape Roots and Cuttings of Carignan, Mataro Grenache, Teinturier, Trousseau, Carbenet Sauvignon, Malbec and Muscat Frontignon, etc.

M. DENICKE.

FOR SALE.

1,000,000 GRAPE CUTTINGS

At $3 per M.

Muscatel, Muscat, Sultana, Flame Tokay and Emperor; also Rooted Vines at $12 per M.

OAK SHADE FRUIT CO.,
Davisville, Yolo Co., Cal.

Trees! Trees! Trees!

Fine assortment of the leading varieties at the following reduced prices, to the trade:

2000 Apples	5 to 10c.	9500 Pears	5 to 10c.
6700 Apricots	4 to 8c.	7800 Cherries	5 to 10c.
7700 Prunes	4 to 8c.	2050 Peaches	4 to 8c.
4600 Plums	4 to 8c.	1000 Japan Plums	6 to 12c.

ALAMEDA NURSERY.
A. Cleveland, - - - Alameda, Cal.

TREES AND PLANTS BY MAIL.

MEECH'S PROLIFIC QUINCE; LAWSON, KIEFFER, and LE CONTE PEARS; NIAGARA and EMPIRE STATE GRAPEVINES, SOUHEGAN and MARLBORO RASPBERRIES, MAY KING and JEWELL STRAWBERRIES. A Complete Stock of everything desirable to plant. Send immediately for price list and circulars. Address, WEST JERSEY NURSERY CO., Bridgeton, N. J.

FRENCH PRUNE TREES FOR SALE.

For sale, about 2000 French Prune Trees, 2 years old, large, healthy trees, free from insects, at $50 per 1000, or $5 per 100. Apply to B. SCHULTE, one-half mile west of Wayne (a local station 4 miles north of San Jose), or address P. O. Box 132, San Jose, Cal.

100,000 Olive Cuttings for Sale.

APPLY TO

C. A. BANCROFT, San Diego, Cal.
Or to THE HISTORY CO., S. F.

GUAVAS.

Large stock; fine plants; for the season of 1886-87. Address

T. J. SWAYNE, National City or San Diego.

Sibley's Tested Seeds

Catalogue free on application. Send for it.
HIRAM SIBLEY & CO.,
ROCHESTER, N. Y. & CHICAGO, ILL.

S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Dec. 29, 1886.

The past week has been interrupted by the Christmas festivities, consequently only such trading was done as is usual for the season. Absence of rains stimulated trading in feed cereals and hay. The rains of to-day have not, at this writing, disturbed values. The English wheat market has ruled strong, with a strong closing to-day, as follows:

LONDON, Dec. 29 —Cargoes off coast, firm, awaiting arrivals. Cargoes on passage and for shipment, firm, but of a holiday character. Cal. wheat off coast, 37s 6d to 37s 9d. Cal. wheat just shipped, 38s 3d. Cal. wheat nearly due, 37s 9d. Liverpool wheat, spot, firm. Liverpool wheat, Cal., 7s5½d to 7s 8½d.

Foreign Review.

LONDON, Dec. 24.—The *Mark Lane Express*, which was issued to-day instead of Monday, the regular day of publication, in its review of the British grain trade for the past week, says: The wheat trade was limited, but prices were steady. Foreign wheat was quiet. The increase of American supplies tends to depress the market, but the disturbed condition of affairs in the eastern part of Europe counteracts this influence and strengthens the market. There is a good prospect of increased business with the new year. At to-day's market the tone of wheat was firm. Flour was 6d dearer. Corn, barley, beans and peas were steady.

Eastern Wool Markets.

BOSTON, Dec. 24.—Wool is firm, with a good demand. Michigan X, 32c ₩ lb; choice Montana, 25@27c; medium Wyoming, 23c@25c; fine do, 20@22c; others unchanged.

NEW YORK, Dec. 24.—Wool is generally steady. Domestic fleeces, 30@38c per lb; pulled, 14@38c; Texas, 9@25c.

NEW YORK, Dec. 26.—The markets here and at Boston and Philadelphia are quiet and practically unchanged. There has been a little more looking around by buyers and some increase in sales of small lots as samples. The indications are that the present situation will remain unchanged until about the middle of January. Considering the continued dullness of trade, holders have maintained their views with remarkable firmness. The sales of the week included 40,000 lbs of Western Texas, at 17@19c; 1000 lbs fall California, at 17c. In Boston, large lines of California wool are held above the market. Territory wools are quiet, though some large sales of Montana medium have been made on the basis of 60 cents for fine medium and 55 cents for medium. Oregon wool is dull. Among the sales at Boston were 537,000 pounds Territory at 21@25 cents, 35,000 pounds California spring and Oregon at private terms; at Philadelphia—3000 pounds Territory fine at 25 cents, 3000 pounds Oregon fine at 30 cents, 1000 pounds California fall at 15½ cents, 9000 pounds Territory black at 22 cents.

NEW YORK, Dec. 28.—Wool is steady but quiet. Domestic fleeces are quoted at 30@38c, pulled 14 @35c, Texas 9@25c.

Philadelphia Market for California Products.

PHILADELPHIA, Dec. 20.—Dried fruits are in eager demand and, with light supplies, it is a sellers' market. Fancy evaporated apples, 12@12½c; good to choice, 10½@11½c; prime to fancy sliced, 6½ @7½c; do., quarters, 4½@5½c. Fancy evaporated peeled peaches, 27@28c; poor to choice, 25@26c; choice to fancy, sun-dried, 17@18c. In California raisins the feeling is quieter on account of the heavy foreign invoice due New York for auction; nominal quotations continue $2@2.25 for Londons and $1.75 @2 for L. M.

Oranges are easier on account of the preponderance of common stock and the late auction sales; such stock as had met regular private sales at $2.75 @3.50 was knocked down at auction last week at $1.80@2.70—principally $2.10@2.25. New California lima beans sell on arrival at $1.80@1.90.

The Chicago Fruit Market,

CHICAGO, Dec. 24.—The dried fruit market is firm, and the arrivals continue light. No peaches are offered, for there were very few dried owing to a short Southern crop this year. No offerings of importance were noted. California Dried Fruit—Raisins are easy, but other kinds rule steady. The trade is fair. Prunes, French, ₩ lb, 9c; plums, pitted, 12c; peaches, quarters, 12c; halves, pared, 25c; nectarines, 9c; pears, 8@12½c; raisins, London layers, 20-lb boxes, ₩ box $1.75@1.80; raisins, loose Muscatel, ₩ box, $1.50@1.60.

Dried Fruit in New York.

NEW YORK, Dec. 26.—Raisins—Moderate jobbing demands have prevailed at easier prices. Of California stock, at the auction sale on Thursday, only about 400 boxes were sold, the balance being withdrawn, owing to the low prices offered. Sales of California layer were reported at $1.12½; do loose, $1.12½; do London, $1.60@1,75; do seedless, $1.10. Prunes, Turkish, are firm at 5¼c; French, strong at 7¾@8c for 60's and 90's. Currants are easier at 5¾@5½c. Citron is selling at 17¾@18c. Figs are jobbing in a moderate way at 6½@13c, as to quality.

New York Wheat Market.

NEW YORK, Dec. 26.—Spot has been in fair request; although the increased firmness in the market has tended to check the export demand, nevertheless prices are 1c and 2c better. Options have been fairly active and firmer, closing as follows: December 90 cents, January 90¾ cents, February 92⅛ cents, March 93¾ cents, May 96¾ cents.

Hops.

NEW YORK, Dec. 26.—Hops quiet, without new features. Coast crop, 1886, prime to choice, 25@27 cents; do., fair to good, 22@24 cents; 1885, good to choice, 10@13 cents.

Local Markets.

BAGS—The market has a stronger, advancing tone for Calcuttas, due chiefly to the warlike reports from Europe. The market is quotable as follows:

Bean	@ 4¼c.
New Gunnies	9½c@10c.
Second-hand Gunnies	@ 6¾c.
Calcutta Standard, May-June delivery	5⅜c@ 5¾c.
Potato Bags, No. 2	3c@ 3¾c.

BARLEY—The market weakened off under threatening weather up to to-day, when it was stronger, notwithstanding the rains, owing to a report of a large short interest on Call, and also that the supply in the State is less than thought. Transactions on Call the past week were free, with to-day's sales as follows:

Morning Session: Buyer season—100 tons, $1.07¾, 100, $1.08; 200, $1.08¼; 300, $1.08½; 100, $1.08¾. Seller 1886—100 tons, $1.04 ₩ ctl. Afternoon Session: Buyer season—600 tons, $1.08¾. Seller season—100 tons, $1.00¼; 100, $1.00½; 100, $1.00¾; 100, $1.00⅞, Seller 1886—100 tons, $1.04; 100, $1.04¼ ₩ ctl.

BUTTER—The market is dull and demoralized. The quality of the fresh butter coming in is poor. The market closed weak.

CHEESE—Last week's remark covers this week's market.

EGGS—A free demand, with lighter receipts, cause a strong market at a slight advance.

FLOUR—The market in sympathy with wheat is very strong, with a further advance at an early day not at all improbable.

WHEAT—Buyers are pursuing their usual tactics of depressing the market, but without effect, as holders who have not sold are firm in their asking prices of from 2½ to 7½ cents per cental above bids. Heavy sales were made the past week; one holder placed 10,000 tons, but at an advance on quotations; the quality averaged fair to good. On Call, transactions the past week were unusually large, with full prices paid. To-day's sales are as follows:

Morning Session: Buyer season—300 tons, $1.58½; 100, $1.53⅝; 300, $1.58¾; 200, $1.58⅞; 2700, $1.59. Buyer 1886—200 tons, $1.49½; 400, $1.49⅝ ₩ ctl. Afternoon Session: Buyer season—1900 tons, $1.59; 3000, $1.58⅞. Buyer 1886—100 tons, $1.49½; 100, $1.49⅜.

[COMMUNICATED.]

Market Information.

Cereals.

Barley held to strong prices up to Monday, when, owing to cloudy weather, an easier feeling set in, resulting in a lower range of values. It is very generally conceded that although the stock in this State in warehouses is larger than at this time last year, yet the quantity on the granaries in farmers' hands is very much less now than in December, 1885. If this be true, then the present low prices are not warrantable. The consumption continues large, but the export demand is restricted, owing to buyers waiting for lower prices.

Oats are very firm, with a slight advance obtainable for the better grades. Western oats are slow, owing to the quality being below this coast's production. Oregon and Washington oats are in fair supply, but as receipts are light, holders are firmer. It is claimed that the supply to draw from is light.

Choice grades of California corn are in light offering, causing a strong tone; but fair to good is in liberal supply with prices in buyers' favor. Western corn is in moderate supply, but prices favor buyers.

In rye and buckwheat there is nothing new to report.

The wheat market holds strong, notwithstanding this is the last week of the year, when all transactions are virtually suspended. The strength of the market is due to the paucity of stocks throughout the civilized world, supplemented by an almost certainty of war in Europe at an early day. The very best informed writers are thoroughly convinced that although war may for a time be averted, yet sooner or later it must come, but even if it does not, a much higher range of values is looked for before June, 1887. Eastern advices are confirmatory of a lighter stock, take the visible and invisible as a whole, than at this time last year; and as Europe's main dependence is on this country, it is not at all unlikely but there will not be any of consequence to spare by April next. In this State the prevailing opinion is that when the returns of the stock on hand on January 1, 1887, are rendered, the aggregate will be very considerably below former years, and as there is quite a short interest on Call, with a large engaged tonnage in port, a stronger buying will be developed, which will force values to a much better figure than now obtains. Continued dry weather is a much stronger inducement to hold than all else combined. Many now appear firmly fixed in the belief that next year's will be considerably below an average.

Feedstuffs.

Bran has been marked up, owing to lighter supplies and a good demand. Middlings, ground barley, feedmeal, and oilcake meal are essentially unchanged. The demand for all kinds is reported good.

Feed carrots are in heavy supply, with prices favoring buyers.

Hay is in an unsettled condition. Buyers only take in a hand-to-mouth kind of way, under the belief that with heavy rains soon, farmers will be free sellers. Holders are not making concessions on last week's prices.

Fruits.

Oranges continue to come to hand in excess of trade wants, which causes the market to rule weak. The demand is good for the season. Limes and lemons are also in liberal supply, with prices weak and in buyers' favor. The demand is light.

Choice apples continue in light supply, with a good inquiry ruling; poor varieties are in heavy stock, with prices against sellers. The receipts from Oregon are lessening, but from the East they are quite free.

Pears are scarce and command good prices.

Hops.

The market is inactive, but holders are firm. A late issue of *Bradstreet's* reports the New York market as follows: "The imports from Germany have been exceedingly heavy, and New York warehouses are overcrowded with hops. Possibly two-thirds of the arrivals, however, are for account of outstanding contracts with brewers, and the available surplus in dealers' hands is a matter of speculation. While the snpply of really choice goods is inconsiderable, the heavy weight of good, useful mediums and the large stocks of low and inferior grades have depressed and weakened the market. Choice Bohemians and Kents, and fine Pacific hops are still, however, firm, and there is little doubt that the best descriptions of all kinds will rule considerably higher in a few weeks' time. Reports are rife among New York growers that the roots of the vine have been injured by lice, and many experienced hop men think that the prospects for a good crop in this State next year are very poor."

The London *Brewers' Guardian* of Nov. 30 publishes the official returns as to the acreage under hops during the last three years, from which we take the following:

ACREAGE UNDER HOPS IN ENGLAND, AS RETURNED JUNE 4 IN THE YEARS 1886, 1885, AND 1884.

	Acres. 1886.	Acres. 1885.	Acres. 1884.
Kent	43,924	44,834	43,464
Hants	3,339	3,303	3,197
Hereford	6,770	6,703	6,602
Surrey	2,547	2,627	2,493
Sussex	10,391	10,722	10,382
Worcester	2,951	2,910	2,873
Other counties	199	228	247
Totals	70,127	71,327	69,258

Live-stock.

The consumption of beef is largely increased, but offerings continue on a liberal scale, which keeps values from advancing. It is stated that with heavy rains and bad roads, deliveries of cattle will fall off, which will create higher prices with us. Mutton sheep are steady, with a firm tone for the better conditioned. Hogs are easy under a continued free selling pressure. Milch cows are in slightly better inquiry. In horses there is nothing new to report.

BEEF—Extra, 7@7½c; first grade, grass fed, 6½ @7c per lb; second grade, 5½@6c; third grade, 5@ —c.

MUTTON—Ewes, 5@—c; wethers, 5¼@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 2½ to 3c for heavy and medium; hard dressed, 4 to 6c per lb; light, 2½ to 3c; dressed, 3½ to 4½c; soft hogs, live, 1¾ to 2¼c.

On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Potatoes continue steady, with choice qualities scarce. Notwithstanding the holidays, the demand is fair for both home and shipping. Sweet potatoes are strong.

Choice onions are strong, owing to a lighter stock and a good demand. Cut and otherwise poor onions are slow and weak.

Cabbages and root vegetables are steady.

Miscellaneous.

Grass seeds are in better inquiry, but prices are unchanged.

Beans are firmer, with a good shipping demand, notwithstanding receipts have largely increased.

Honey holds strong, with both the stock and supply light for the season.

Raisins, if choice, are firmly held at steady prices, but other qualities are shaded so as to find custom. Eastern papers continue to speak well of the more choice packed, and predict that California raisins will take the lead in the near future,

Heretofore, turkeys ruled very low a day or two before each holiday, owing to heavy receipts, but the past Christmas they sold very high, owing to light receipts. So far this week the market has been steady. In hens, roosters, ducks, and geese, the market shows but little change.

On Monday last, the market was glutted with hares, causing a very low range in prices; since then they are higher. Other wild game ruled fairly steady.

The tonnage movement compares with last year at this date as follows:

	1886.	1885.
On the way	215,278	152,365
In port, disengaged	62,282	129,950
In port, engaged	56,079	41,062
Totals	333,639	323,377

The above gives a carrying capacity, as follows: 1886, 527,515 short tons; 1885, 513,475 short tons; increase over last year, 14,040.

Dried fruits continue strong for all kinds except prunes, which temporarily are weak under heavy receipts.

San Francisco, Dec. 29, 1886.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Dec 29, 1886.

Apples, bx com..	75	@	1 00	do Rose Peru.	—	@ —
do choice.....	1 25	@	1 50	do Muscat....	—	@ —
Bananas, bunch.	1 50	@	3 00	do Tokays....	—	@ —
Blackberries, ch.	—	@	—	Isabel.....	—	@ —
Canteloupes, cr.	—	@	—	Wine, Zinfandel	—	@ 1 00
Cherries blk.....	—	@	—	do Mission....	—	@ —
do Royal Ann..	—	@	—	Limes, Mex.....	4 50	@ 6 —
Cherry plums...	—	@	—	do Cal. box ...	50	@ 1 00
Crabapples.....	1 50	@	1 75	Lemons, Cal., bx	1 00	@ 1 50
Cranberries 10	00	@12	50	do Sicily, box.	2 00	@ 2 50
Currants chest...	—	@	—	do Australian.	—	@ —
Figs, bx	—	@	—	Nectarines, box.	—	@ —
Grapes.....	1 00	@	2 00	Oranges, Com bx	1 25	@ 1 75

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.

DATE. Dec. 23 29.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego Rain	Temp.	Wind	Weather.
Thursday	.02	43	E	Cy.	*.–	55	Cm	Cy.	.00	52	SE	Cy.	.14	▩	SE	Cy.	.00	60	E	Cl.	.00	58	N w	Fr.
Friday	.05	48	S	Cy.	.00	52	S	Cy.	.00	56	SE	Fr.	.00	53	SE	Cy.	.00	70	W	Fr.	.00	64	N w	Fr.
Saturday	.35	48	▩	LR	.00	47	S W	Cy.	.00	54	N w	Fr.	.00	52	N	Cy.	.00	67	SE	Cl.	.00	61	W	Cl.
Sunday	1 37	41	N	LR.	.02	49	Cm	Cy.	.00	50	E	Cy.	.00	51	N	Cy.	.00	57	N w	Cl.	.00	59	S W	Fr.
Monday	.75	31	NE	LR.	.00	50	S W	Cy.	.00	50	N w	Cl.	.00	52	NE	Fr.	.00	55	NE	Fr.	.00	61	S W	Cl.
Tuesday	.57	37	N w	Cy.	.15	48	S	LR	.00	54	SE	Cy.	.00	58	▩	Cy.	.00	59	E	Cy.	.00	62	S W	Cy.
Wednesday	.35	▩	SE	LR.	1.77	52	▩	LR.	.25	55	SE	LR	.02	59	S	LR.	*.–	▩	E	LR	.00	64	W	Cy.
Total	3.46				1 94				.25				.16				* –				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

do Choice.....	2 00	@	2 50	RAISINS.		
do Novels.....	2 50	@	4 50	Dehesa Clus, fcy	2 65	@ —
do Panama...	—	@	—	Imperial Cabinet, fancy....	1 90	@ —
Peaches, bx.....	—	@	—	Crown London Layers, fcy..	1 70	@ —
do bask	—	@	—	do Loose Muscatels, fancy	1 60	@ —
Crawfords, bx	—	@	—	do Loose Muscatels.....	1 50	@ —
do bskt..	—	@	—	Cal. Valencias..	1 50	@ —
do choice	—	@	—	do Layers	1 50	@ —
Pears bx	75	@	1 25	do Sultanas...	1 50	@ —
do choice.....	2 00	@	2 50	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.		
do Bartlett, bx		@	—			
Persimmons, Jap, bx.....	1 00	@	1 50			
Pineapples, dos.	4 00	@	5 00			
Pomegranates. b	—	@	—			
Plums ₩	—	@	—			
Prunes bx.....	—	@	—	VEGETABLES.		
do Egg.....	—	@	—	Artichokes, doz.	—	@ —
Quinces bx.....	—	@	—	Asparagus box..	—	@ —
Raspberries ch..	—	@	—	Beets, sk	1 00	@ —
Strawberries ch.	5 00	@	6 00	Cabbage, 100 lbs.	50	@ 75
Watermelons 100	—	@	—	Carrots, sk.....	25	@ 35
DRIED FRUIT.				Cauliflower, doz.	—	@ —
Apples, sliced, ₩	3	@	3½	Eggplant, ...bx	—	@ —
do evaporated.	8	@	9	Garlic, ₩ new..	—	@ —
do quartered..	1½	@	—	Green Corn,		
Apricots.....	12	@	13	small box....	—	@ —
do evaporated	20	@	22	do large box..	—	@ —
Blackberries....	9	@	10	Green Peas, ₩..	—	@ —
Citron	28	@	30	Lettuce, doz....	10	@ —
Dates.....	9	@	10	Lima Beans ₩..	—	@ —
Figs, pressed....	5	@	6	Mushrooms, bx.	—	@ —
Figs, loose.....	3	@	4	do cultivated.	—	@ —
Nectarines.....	8	@	10	Okra, dry, ₩...	10	@ 12½
do evaporated	5	@	—	do green box..	—	@ —
Peaches.....	8	@	10	Parsnips, ctl....	1 50	@ —
do pared.....	18	@	22	Peppers, dry ₩..	10	@ —
Pears, sliced....	5	@	—	do green, bx..	40	@ 60
do qrtd.....	—	@	2½	Pumpkins pr ton	12 00	@15 00
do evaporated	8	@	10	Squash, Marrow	7 00	@12 00
Plums, pitted..	7½	@	8	do Summer bx	25	@ 40
do unpitted...	3	@	4	String beans ₩..	—	@ —
Prunes.....	5	@	6	Tomatoes box..	—	@ —
do French	—	@	—	Turnips ctl.....	75	@ 1 00
Zante Currants.	8	@	—			

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Dec. 29, 1886.

BEANS AND PEAS.				Peanuts	4½	@ —
Bayo, ctl.....	1 40	@	1 55	Filberts	10	@ 11
Butter.....	1 25	@	1 55	POTATOES.		
Pea.....	1 60	@	1 70	Burbank.....	1 10	@ 1 30
Red.....	1 25	@	1 40	Early Rose.....	60	@ 75
Pink.....	1 25	@	1 40	Cuffey Cove.....	1 00	@ 1 25
Large White....	1 60	@	—	Jersey Blues...	1 10	@ 1 30
Small White....	1 60	@	1 70	Petaluma.....	—	@ —
Lima	2 00	@	2 45	Tomales.....	1 00	@ 1 25
Fld Peas, blk eye	1 00	@	1 05	River reds.....	70	@ 1 00
do green.....	1 00	@	1 12½	Humboldt	—	@ —
do Niles.....	1 25	@	—	do Kidney....	—	@ —
BROOM CORN.				Chile	—	@ —
Southern per ton	50	@	75	do Oregon...	1 15	@ 1 30
Northern per ton	50	@	75	Peerless.....	1 10	@ 1 40
CHICORY.				Salt Lake.....	—	@ —
California.....	4	@	4½	Sweet	2 00	@ 2 50
German.....	6½	@	7	POULTRY AND GAME.		
DAIRY PRODUCE, ETC.				Hens, dos.....	6 00	@ 7 50
BUTTER.				Roosters.....	6 00	@ 7 50
Cal. fresh roll, ₩.	20	@	25	Broilers	4 00	@ 6 00
do Fancy br'nds	27½	@	30	Ducks, tame....	4 00	@ 6 00
Pickle roll.....	16	@	18	do Mallard....	2 00	@ 3 50
Firkin, new.....	15	@	18	do Sprig.....	1 00	@ 1 50
Eastern.....	—	@	—	Geese, pair.....	1 00	@ 2 00
CHEESE				do Goslings ...	—	@ —
Cheese, Cal., ₩..	12½	@	15	Wild Gray, dos	3 00	@ —
Eastern style...	15	@	16	Turkeys, ₩.....	16	@ 19
EGGS.				do Dressed..	19	@ 21
Cal., ranch, doz..	32½	@	35	Turkey Feathers, tail and wing..	10	@ 20
do, store.....	25	@	30	Snipe, Eng., doz.	—	@ —
Ducks	—	@	—	do Common..	—	@ —
Oregon	—	@	—	Doves.....	75	@ 85
Eastern.....	—	@	—	Quail.....	90	@ 1 00
Utah.....	—	@	—	Rabbits.....	1 00	@ 1 25
FEED.				Hare.....	1 50	@ 2 00
Bran, ton.....	15 50	@16	50	Venison	8	@ 10
Cornmeal.....	26 00	@27	00	PROVISIONS.		
Grd Barley ton.	24 00	@25	00	Cal. Bacon, Heavy, ₩.....	8½	@ 9
Hay	8 00	@14	00	Medium	8½	@ 9
Middlings.....	19 50	@22	00	Light.....	10½	@ 11½
Oil Cake Meal.	26 50	@28	50	Extra Light..	12	@ 12½
Straw, bale.....	35	@	50	Lard.....	7	@ 9½
FLOUR.				Cal. Smoked Beef	11½	@ 12½
Extra, City Mills	4 37½	@	4 75	Hams, Cal.....	10	@ 12½
do Co'ntry Mills	4 25	@	4 62½	do Eastern..	13	@ 14
Superfine.....	3 25	@	3 75	SEEDS.		
GRAIN, ETC.				Alfalfa.....	9	@ 10
Barley, feed, ctl.	1 00	@	1 07½	Canary.....	3½	@ 4
do Brewing..	1 10	@	1 25	Clover red.....	12	@ 13
Chevalier.....	1 45	@	1 60	White	17	@ 18
do Coast.....	90	@	1 45	Cotton	20	@ —
Buckwheat	1 00	@	1 20	Flaxseed	2½	@ 2½
Corn, White....	—	@	—	Hemp.....	4	@ 4½
Yellow	1 05	@	1 10	Italian RyeGrass	25	@ —
Small Round..	1 10	@	1 15	Perennial.....	7	@ 9
Nebraska	97½	@	1 05	Millet, German..	4½	@ 5
Oats, new.....	—	@	—	do Common.	7	@ 10
Choice feed.....	1 35	@	1 50	Mustard, white..	3	@ 3½
do good.....	1 27½	@	1 32½	Brown.....	2 25	@ 2 75
do fair.....	1 25	@	1 27½	Rape.....	1	@ 1½
do black	1 40	@	1 55	Ky. Blue Grass..	11	@ 13
do Oregon	1 25	@	1 45	2d quality.....	11	@ 12
Rye.....	1 10	@	1 25	Sweet V. Grass.	75	@ —
Wheat milling.				Orchard.....	20	@ 25
Gilt edged..	1 56½	@	—	Red Top.....	15	@ —
do Choice.....	1 53½	@	1 55	Hungarian....	8	@ 10
do fair to good	1 52½	@	—	Lawn	30	@ 40
Shipping choice	1 53½	@	—	Mesquit.....	10	@ 12
do good.....	1 50	@	1 51½	Timothy	5½	@ —
do fair.....	1 46½	@	1 48½	TALLOW		
HIDES.				Crude, ₩.....	1½	@ 4
Dry.....	—	@	18	Refined.....	6½	@ 6½
Wet salted.....	8	@	9½	WOOL, ETC.		
HONEY, ETC.				SPRING—1886		
Beeswax, ₩.....	20	@	22	Humboldt and Mendocino ...	22	@ 25
Honey in comb.	9	@	11	Sact'o valley....	17	@ 20
Honey in comb, fancy.....	12	@	13½	Free Mountain.	17	@ 20
Extracted, light.	4	@	4½	N'hern defective	—	@ —
do dark.	3½	@	4½	S Joaquin short.	14	@ 18
HOPS.				do long.....	—	@ —
Oregon.....	20	@	27½	Cava'v & F'th'll.	—	@ —
California.....	20	@	27½	Oregon Eastern.	17	@ 22
ONIONS.				do valley.....	23	@ 25
Pickling.....	—	@	—	Southern Coast.	13	@ 17
Silverskin.....	75	@	1 40	FALL—1886		
NUTS—JOBBING.				Southern, free..	17	@ —
Walnuts, Cal., ₩	12½	@	13½	do defective..	12½	@ 19
do Chile.	—	@	—	Northern, free..	20	@ —
Almonds, bd shl.	6	@	9	do defective..	15	@ 20
Soft shell.....	15	@	19	Middle free.....	18	@ 21
Brazil.....	10	@	11	do defective..	15	@ 18
Pecans.....	9	@	11			

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date,* IF REQUESTED, the following articles (while this notice continues), at the very greatly reduced figures named at the right:

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The German Savings and Loan Society.

For the half year ending December 31, 1886, the Board of Directors of The German Savings and Loan Society has declared a dividend at the rate of four and thirty-two one-hundredths (4 32-100) per cent per annum on term deposits and three and sixty one-hundredths (3 60-100) per cent per annum on ordinary deposits, payable on and after the 3d day of January, 1887. By order.

GEO. LETTE, Secretary.

DIVIDEND NOTICE.

SAN FRANCISCO SAVINGS UNION,

532 California St., cor. Webb.

For the half year ending with 31st December, 1886, a dividend has been declared at the rate of four and one-half (4½) per cent per annum on term deposits, and three and three-fourths (3¾) per cent per annum on ordinary deposits, free of taxes, payable on and after Monday, 3d January, 1887. LOVELL WHITE, Cashier.

ANNUAL MEETING.

The regular Annual Meeting of the Stockholders of the Grangers' Bank of California, for the election of Directors for the ensuing year, will take place at the office of the Bank, in the city of San Francisco, State of California, on Tuesday, the 11th day of January, 1887, at 1 o'clock P. M. For Grangers' Bank of California.

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10 Early French Oxheart. 10
11 Large Late Drumhead 10
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22 Long Green..... 5
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55 Boston Marrow Wint'r 10
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57 Large Yellow..... 10
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72 Yorkshire Hero..... 10
73 Queen of Dwarfs..... 10

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82 Black German Wax... 10
83 Refugee..... 10
84 Red Valentine..... 10

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98 Clarkia, fine mixed.... 5
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100 Foxglove, mixed..... 5
101 Gilia, mixed..... 5
102 Globe Amaranthus.... 5
103 Gypsophila Elegans... 5
104 Ice Plant..... 5
105 Larkspur, finest mixed 5
106 Linum Grandifl'a(Flax) 5
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109 Marigold, African, dbl. 5
110 Mignonette, Sweet.... 5
111 Nasturtium..... 5
112 Nolana..... 5
113 Portulaca, mixed..... 5
114 Poppy, Double, mixed. 5
115 Rocket, Sweet..... 5
116 Scabiosa, Dw'f, mixed. 5
117 Sensitive Plant..... 5
118 Sweet Pea, White..... 5
119 Sweet Pea, Crimson, Everlasting..... 10
120 Sweet Peas, mixed.... 5
121 Sweet William, mixed 5
122 Sunflower, Cal., Dbl'e. 5
123 Adlumia Cirrhosa (Mountain Fringe).. 10
124 Althea (Hollyhock) fine mixed..... 10
125 Aster, China, mixed... 10
126 Australian Vine..... 10
127 Balsam (Lady Slipper) fine mixed..... 10
128 Bals'm, Fine Paris, dbl 15
129 Balsam, Splendid, dbl. 10
130 Balsam, Dwarf, double 25
131 Balsam, Rose Fl'd, dbl 15
132 Balloon Vine..... 10
133 Browallia Grandiflora. 10
134 Canna (Indian Shot).. 10
135 Canna, fine mixed var. 10
136 Celosia Cristata Varie'a 10
137 Celosia Cristata Purpurea..... 10
138 Clematis Flammula... 15
139 Dahlia Superflua, mxd 25
140 Dianthus Chinensis (Indian Pink)..... 10
141 Dianthus Chinensis Double White..... 10
142 Celosia Cristata, fine mixed (Coxcomb).... 10
143 Chrysanth'um Album. 10
144 Datura, fine mixed.... 10
145 Evening Primrose..... 10
146 Four O'Clock, mixed.. 10
147 Forget-me-not..... 10
148 Geranium Zonale..... 10
149 Geranium, fancy colored leaves..... 25
150 Godetia (The Bride)... 10
151 Gourds (Hercules Club) 10
152 Ipomœa (Cypress Vine) 10
153 Indian Pink, dbl., mxd 10
154 Lobelia, Crystal Palace Compacta..... 25
155 Lobelia, Blue..... 10
156 Musk Plant..... 10
157 Nierembergia Gracilis. 10
158 Pansy, fine mixed..... 10
159 Petunia, mixed..... 10
160 Phlox Drummondii, fine mixed..... 10
161 Pyrethrum Aureum (Golden Feather).... 10
162 Salpiglossis mixed.... 10
163 Stock (Ten Week)..... 10
164 Wallflower, fine mixed 10
165 Wallflower, purple..... 10
166 Zinnia, mixed fine..... 10
167 Zinnia, Scarlet, dbl.... 10
168 Belles Perennis (Daisy) single..... 15
169 Campanula Medium (Canterbury Belle).. 15
170 Canary Bird Flower... 15
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172 Aquilegia Alpina (Columbine)..... 20
173 Heliotropium, fine mxd 20
174 Heliotrop'm, dark, mxd 20
175 Verbena, choice, mx'd. 20
176 Violet, Blue..... 20
177 Balsam Camelia, flow'd 20
178 Carnation, fine mixed. 25
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180 Dolichos(Hyac'thBean) 10
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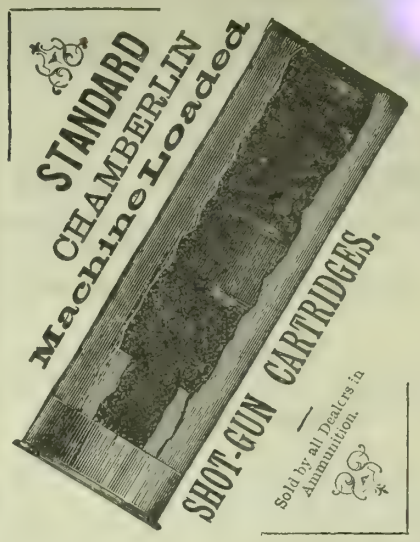
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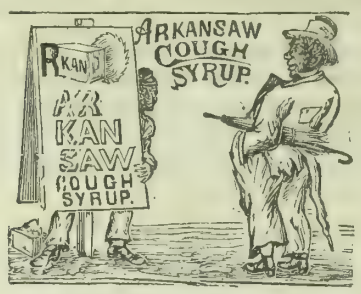
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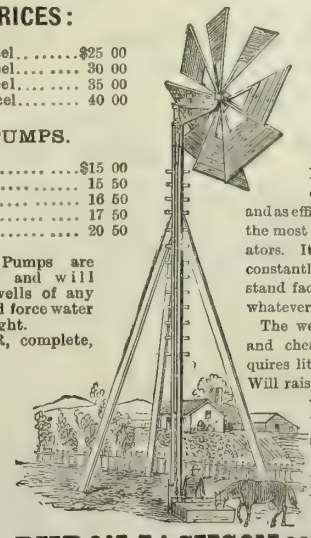
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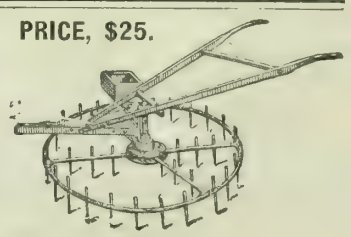
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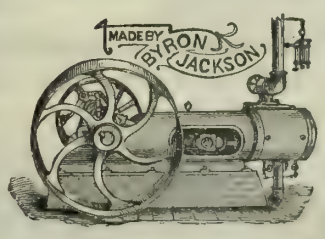
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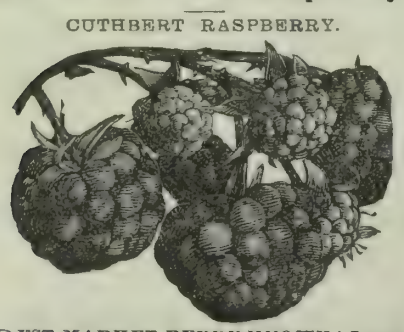
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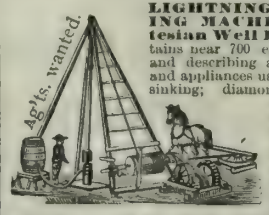
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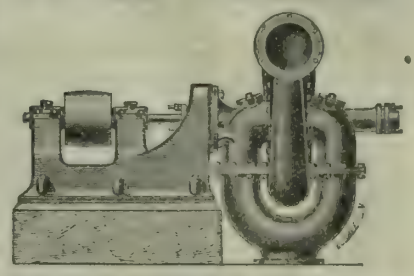
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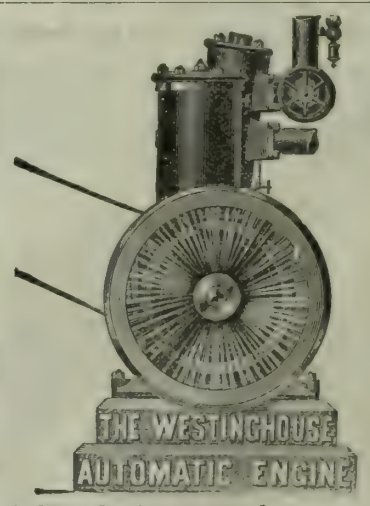
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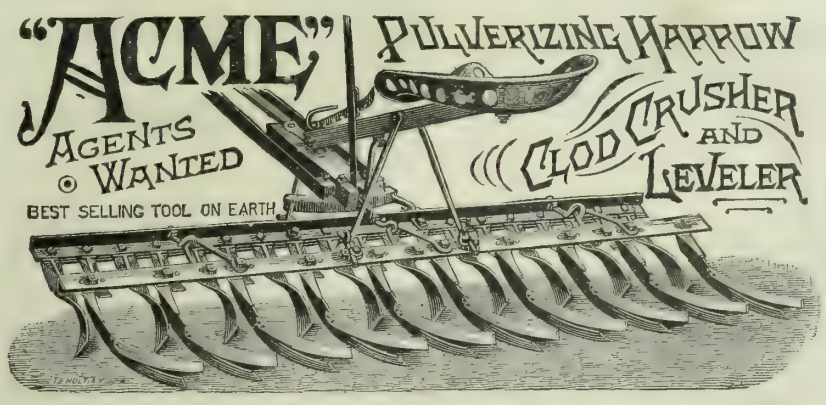


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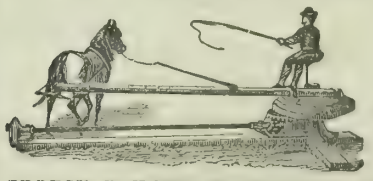


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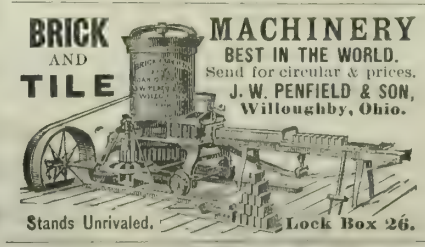
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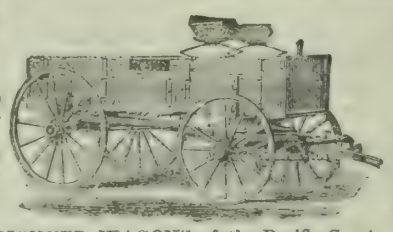
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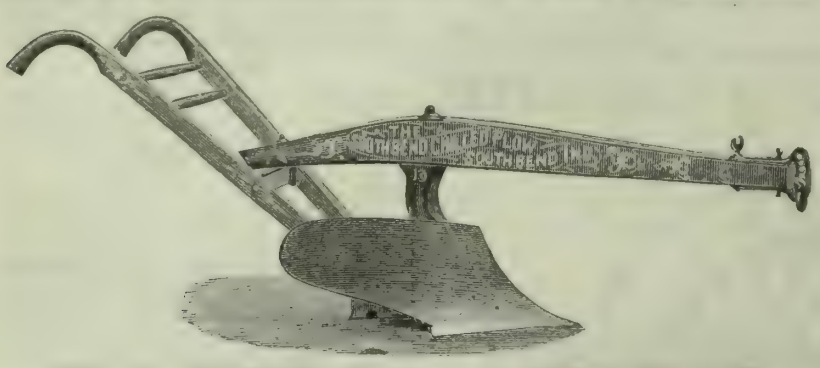
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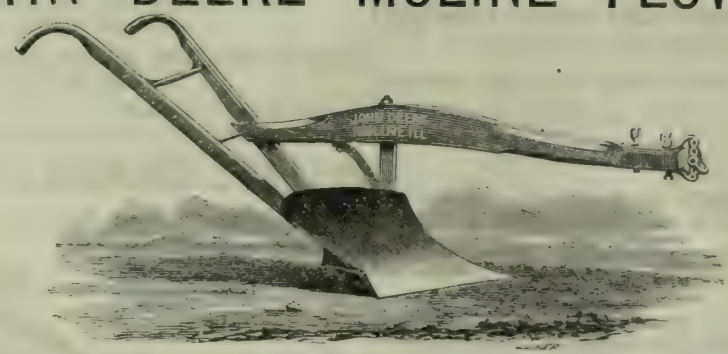
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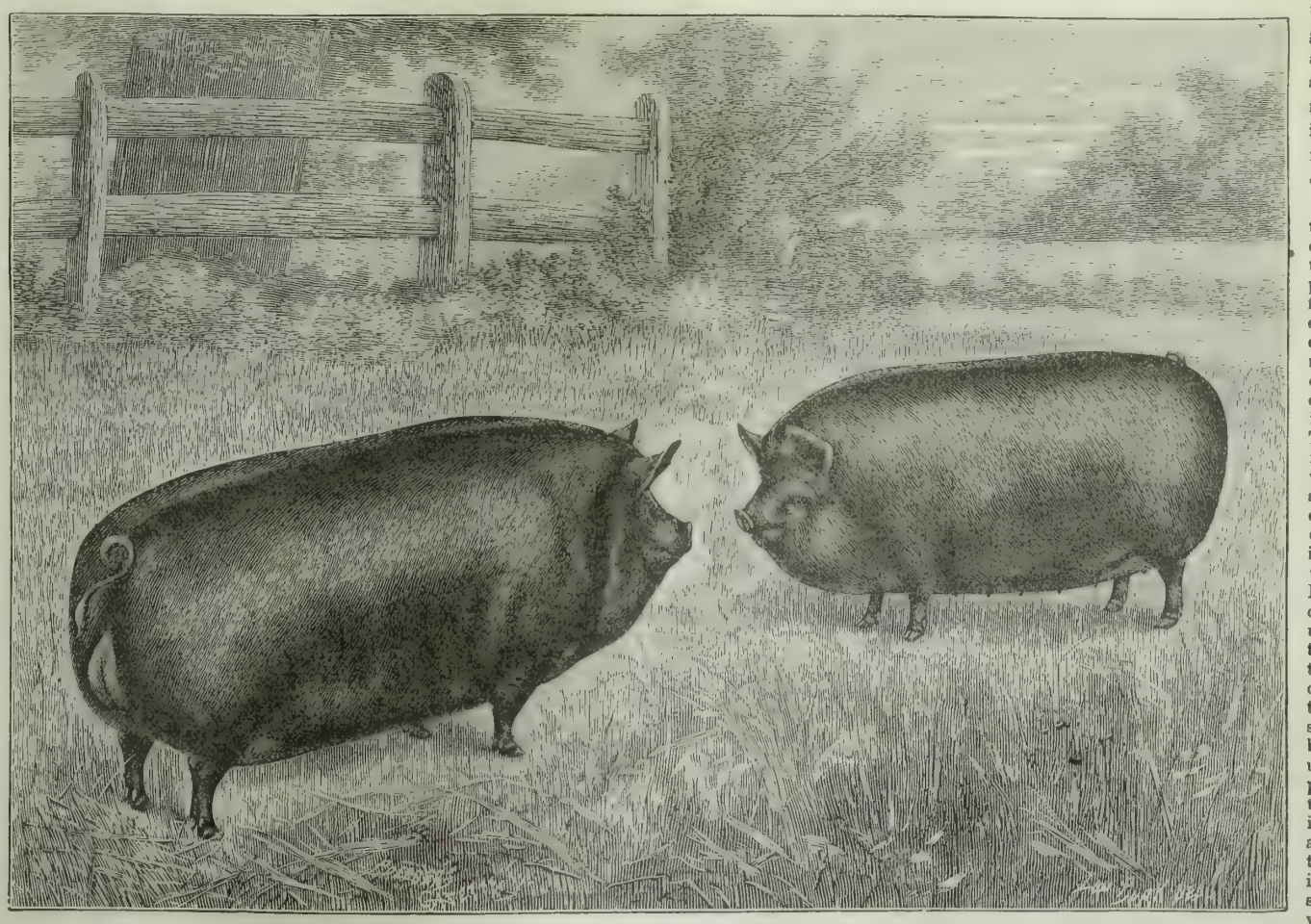
TWENTY-PAGE EDITION.

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Essex Swine.

There is some progress being made with Essex swine in California, and there are several very good, though small breeding herds of pure breds in this State. The Berkshire have the lead by prior introduction, and they merit their popularity; but for sake of variety as well as for their intrinsic merit we would like to have the Essex better known. We have on this page a good engraving of a pair of Essex swine from the herd of W. J. Neeley, of Ottawa, Ill., who was the first Western importer and breeder of this breed in this country. The boar is imported Greenbush and the sow a thoroughbred, the name of which we have not at hand. As the engraving shows, the Essex hogs are perfectly black, and are, in this respect, different from the Berkshires, which have small white markings.

The improved Essex swine of to-day are believed to be the result of crossing the Neapolitan hog upon the original Essex, and afterward breeding and selecting toward the present type which is now fixed. Other characteristics secured by intelligent breeding have been early maturity, a quiet disposition, tendency to fatten well, and to reach a very respectable size for a small hog. In fact they are claimed to be the largest of the small breeds and to reach 300 to 400 pounds at one year old when well fed. As bred now they are described as follows: "Color black; face short and dishing; ears small, soft and erect when young, but droop somewhat with age; carcass long, broad, straight and deep; hams heavy and well let down; bone fine; hair ordinarily rather thin. Fattening qualities superior; prolific breeders and fair nurses." With all these excellent qualities the breed has not generally been popular in the Western States, mainly on account of their lack of great size. They are, however, growing in public favor. For crossing with the large, coarse breeds they are especially useful. Of course, in California, where the large hog is not so greatly desired as east of the Rockies, the Essex is quite large enough. We should like to hear from California Essex breeders. Records of their experience with the breed would be read with much interest.



THOROUGHBRED ESSEX SWINE—IMPORTED GREENBUSH AND CONSORT.

A single sale of 17,000 orange trees was made by a San Bernardino nurseryman, recently, to the representatives of a colony from Chicago.

Fruit Shipping.

On page 30 of this issue may be found a statement from Mr. Hatch, president of the Fruit Union, concerning the views which the directors of that organization take of the present situation; also, the changes in the by-laws with which they propose to meet the prevailing views on policies to be adopted. We have received a strong protest from one fruit-grower against the last clause of Section 10, as printed in the Rural this week, as calculated to work spurious wines, it being claimed that the amendments legalize just what it was intended to prevent. Apparently the meeting lost confidence in congressional aid in this direction, and, following Mr. Estee's advice, will make an effort to induce the California Legislature to define pure wine, and afterward seek the same act by Congress. A motion was carried appointing Messrs. McIntyre, Doyle, Rixford, J. Kohler and Shillaber a committee to draft a spurious wine bill suitable to the California growers and present it to the Legislature for passage.

At the afternoon session Professor Hilgard delivered a lecture on different methods of fermentation, of which an outline will be issued in a University bulletin. It was decided by the directors, before adjournment, to call a great convention of the winemakers of the State for March 1st and four following days.

Dr. Sanborn stated last winter, at a meeting of the Illinois Horticultural Society, that he protected from rabbits and mice his 600 pear trees with a wash of lime and water, with enough copperas added to change the color to a deep green. Some cheap glue was added to make it adhere to the trees. Neither rabbits nor mice would touch the trees thus treated.

Grape-Growers' Meeting.

We attended the meeting of the Grape-Growers' Association which was held on Tuesday of this week, at the rooms of the Viticultural Commission in this city. There was a large representation of those engaged in the wine branch of the grape industry. The morning session was occupied with a discussion on pending congressional legislation on wine interests. Much fault was found with the amendments which have been made to the bill against hardship and open the way for the introduction of favoritism. This is the paragraph which proposes to receive options for the control of certain markets by those who will bid most for the privilege. It does not appear to us that such a method would work well. We received, too late for printing on the same page with the other matter relating to fruit shipping, a letter by P. W. Butler, giving the views of the Placer county growers. This letter may be found on page 33 of this issue. It is time that all in the fruit interest were bethinking themselves of plans and methods for procedure. The meeting of the Fruit Union will be held January 19th. According to the statement by Mr. Hatch, it will be an open meeting for all in the fruit interest, though, of course, the right to vote is restricted to members of the Fruit Union, on whose stock assessments have been paid up.

Harvesting Corn by Machinery.

It appears that the Western farmers are getting tired of cutting up and shocking their maize, and weary also of the winter occupation of husking. They hasten to finish up the business, cutting with a reaper and then putting the whole growth through a grain separator and getting good husked and shelled corn at the spout. What has happened to the famous Western corn? It must have dwindled down considerably since the time when they had to use stepladders to gather the ears and axes to hew down the stalks. However that may be, the following is an item which we find in an Eastern exchange:

T. H. Wood, an enterprising farmer south of Litchfield, Minn., this year tried an experiment with his field of over 60 acres of corn, that is worthy of more than a passing mention. When the corn became ready for cutting, he went into it with his self-binder. The only change he made in the machine was to attach the sickle-knives to a bar of double weight, the ordinary sickle bar being considered too weak for the work. In cutting, where the corn was green and unusually heavy, he took but one row at a time, but where it was of ordinary growth he took two rows at a swath. The bound bundles were shocked up like wheat and permitted to stand in the shock until thrashing time, a few days ago, when he ran them through an old thrashing machine in the same manner as he would wheat. The result was in the highest degree satisfactory. The corn was shelled clean from the cob. Some of the grains were broken, but for feeding and commercial purposes uninjured. Some of it he brought to Litchfield for market, and received five cents per bushel more for it than was being paid for corn in the ear. The stalks were broken up better in some respects than by a feed-cutter, and made excellent fodder. Mr. Wood says he shall continue to harvest his corn in this manner, and commends the process to his fellow-farmers as being cheaper and preferable in many ways to the ordinary method of harvesting that crop.

We do not suppose California will be long taking the hint in this direction. It may be that our stalks are too long and thick, but they certainly can have the advantage of perfect dryness, which must facilitate such an operation. Perhaps some of our wide-awake inventors can devise an improved thrasher which will do the business for California corn. Perhaps we can have a modification of the combined harvester which will pass through the cornfields delivering the shelled corn in sacks and the minced corn fodder in bales for stock-feeding. Harder things have been done before now,

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Glimpses of San Diego County.

[Written for the RURAL PRESS by GEORGIE D. W.]

Southward of our gates of gold
Two hundred leagues, as the tale is told,
Two hundred years, near the Aztec sea,
A city there was and again shall be.
—*Old Legend.*

Entering at San Diego bay, we pass through a narrow channel between the almost perpendicular hights of Point Loma, with its lighthouse, and the peninsula, with its Coronado beach. Safe in the land-locked harbor, after a sail of some seven or eight miles, we find ourselves in port, and then, with a rustic's eye, take in the city and its surroundings.

The distant Mexican mountains on one hand, the San Bernardino range, topped by the snow-draped peaks of the San Jacinto on the other, form a very pleasing picture—one not easily forgotten. The city abounds in tropical fruits and flowers and dense shrubbery. It can almost vie with Italy's famed "Bride of the Sea"—the beautiful Venice of song and story. The moonlight nights here are perfect. They have gondolas. Isn't a gondola a boat? Well, there are ever so many here. Any evening, when the wind doesn't blow, you may see those little crafts lazily floating over the placid waters, or propelled by the light-dipping oars of the boatmen, freighted with merry pleasure-seekers on their way to or from the Coronados, Point Loma or some little isle they wot of.

San Diego city is growing as rapidly as its most zealous admirers could wish. There have been a great many handsome residences put up lately. The Florence Hill, on the outskirts of the city, claims the finest, I believe. H. H. Bancroft, the historian, has a beautiful residence up there. The hotels are all crowded, and still the cry is for more room. Several large hotels have gone up lately. I suppose they will see to it that room is provided for all who come.

Only a few days in the city, as our way lies northward. In a private conveyance we soon reached the dry bed of the San Diego river at North San Diego, the present suburbs. Here, where the old monastery now stands, was founded the first mission, afterward removed further up the river. But my pen must stop. The subject is very fascinating, but it has been so well and so enthusiastically written up by others of far better descriptive powers that I stand—as I stood before those grand old wrinkled palms, a century dead—in silence.

After a visit through the monastery and grounds, we moved on northward over a good mountain road, past some of San Diego's prettiest valleys, which open out to the sea through breaks in the Coast Range that follows the line of the ocean all the way along from San Francisco. The first of these little valleys is Cordero, where the California Southern Railroad has its first station, 18 miles from San Diego. High mesa land rises on either side, the valley lying quite level only about one and a half miles wide from mountain to mountain. The slopes to those mesa mountains are being converted into ranches and homes by the new settlers.

San Diego county generally is very healthy. It is semi-tropical, with all the advantages and minus the disadvantages of the tropic countries. In this mountainous region there is no miasma; no intense heat; no very cold weather (although the wind is very searching sometimes), but health on every passing breeze. Ay! soft, invigorating breezes, whether they blow from the ocean laden with spicy southern perfume or come floating down from mountain pines.

Trapping Gophers.

EDITORS PRESS:—The most favorable time for trapping gophers is during the rainy season and in summer before the ground becomes dry and hard. In order to trap gophers successfully a liberal supply of common sense and patience is very essential to the trapper. In the first place, the habits of the gopher must be studied and learned. It is well known that gophers come to the surface in the night, and generally close their holes in the morning soon after daybreak. They frequently emerge again about noon, and a third time late in the afternoon. It is best to set the trap in an open hole, as the gopher will be sure to return to fill it. Still the holes may be opened if the dirt is still fresh, with a good prospect of the gopher's return. Therefore the trapper may make his rounds three times a day, as above indicated.

In the second place, care should be exercised in preparing the hole for the insertion of the trap. The trapper should assure himself that he has found a straight hole for a distance of at least 10 inches, with no lateral branches, otherwise the gopher in pushing out the dirt will likely enough thrust the trap to one side, cover it up or spring it without being exposed to its grasp.

In the third place, the trapper should be supplied with at least two varieties of traps—one for the larger gophers and the other for the smaller ones. The common iron gopher trap, which springs downward, is excellent for the former, and the small wire trap, which springs upward, is generally successful with the latter. It is taken for granted that the size of the hole is indicative of the size of the gopher. Either trap should be inserted nearly its full length into the hole, pressed down firmly, and a little dirt piled at the outer end to prevent its being easily pushed out. After the trap is set it is well to cover the opening with some grass or weeds. Sometimes the holes require a little enlarging, but care should be taken to make the fit as close as possible, that the body of the gopher may be kept near the center, and thus more exposed to the prongs of the trap.

In the fourth place, the trapper should be supplied with a small spade and a little gouge-shaped implement for trimming the hole.

Finally, the trapper should be supplied with traps as numerous as the extent of the pest demands. He should not be discouraged by lack of success at first. Perseverance is as essential in this work as in any other, and will generally win. We have in mind the successful capture of a big gopher after trapping for him a week, changing the trap two or three times a day; he had then destroyed about 50 hills of corn. How much damage he and his descendants might have done had not his career of devastation been interrupted, can only be estimated by such multiples as attach to the propagation of that particular species. G.

Santa Cruz.

THE DAIRY.

San Mateo County Dairies.

The Redwood *Times and Gazette* has been out among the dairies and collected the following interesting statements:

The San Mateo dairy of Messrs. Kinne & Daley occupies a sightly eminence. To the east it overlooks part of the Potrero, with the bay and a portion of Oakland beyond and the long sweep of the Mission road from St. Mary's College to the San Mateo county line. To the south rise the rugged steeps of Mt. San Bruno. To the southwest and west unfold the fertile slopes of Colma, rising southward to the hights which overlook San Pedro valley, and sinking westward to Laguna Merced and the sandy dunes which wall it from the encroaching sea. To the north the land falls rapidly to the irregular pass which forms the business portion of the thriving village of Ocean View, and then rises to the hights which run north across the peninsula in a gradually lessening line until lost beyond Lone mountain in the broad plateau south of the Presidio. In the very teeth of the west wind, and at the northern bastion of the county, so to speak, this little "castle of industry" stands, the first of the many milk dairies which have made San Mateo county the pure-milk purveyor of the metropolis. Within easy rifle shot of the San Mateo dairy is the dairy of Knowles Brothers, who have succeeded their father in the operation of a well-equipped, well-managed dairy, small, but good—a veritable multum in parvo of system, cleanliness and quality of output. Both these dairies feed the best of hay as well as plenty of bran, middlings and oilcake meal. At the Knowles dairy is in operation the first De Laval cream separator used in San Mateo county. This separator is an application of the principle of centrifugal motion to the extraction of cream from sweet milk. The milk is put into a tin tank so fast as milked, and when the required amount is in the tank it is passed therefrom and through the separator, run by a two-horse steam engine. The result is sweet cream, thick or thin as desired, and sweet skimmed milk, suitable for feeding to young calves or for sale to bakeries to be used in bread-making. Mr. Bart Weeks, of Pescadero, has also one of these separators in use. Mr. Coburn is about to put one in, and other large butter dairies will doubtless do so soon, in situations where the fuel supply justifies. The milk supplied to San Francisco by the two dairies first noticed, by Jersey farm at San Bruno; by the Millbrae dairy and by the Howard dairy at San Mateo, as well, doubtless, as that produced by many other smaller milk-shipping dairies in the county, is of approved excellence.

The writer has just returned from a trip along the coast from Half Moon bay nearly to Point New Year. No better dairy section exists in the county. The milk product of this entire section readily might be sent to San Francisco by rail—if rail facilities existed. Seven thousand gallons daily might be sent from the section between Pigeon Point and Half Moon bay. Given a coast railroad from Santa Cruz to San Francisco and the problem of supplying the metropolis with pure milk will be solved for all time. We think we do not exaggerate when we say that the coast side of San Mateo and Santa Cruz counties can easily supply San Francisco with all the fresh milk it is likely ever to need. The undeveloped dairying possibilities of that section are greater than have been even dreamed of. Rapid, sure and cheap transportation of fodder and of milk must come some day and ought to have come long ago. Let those who have most to gain in the matter—all of us are in some degree interested—do something. A mass meeting in Pescadero, another in Santa Cruz, another in Half Moon Bay, addressed by the intelligence and the public spirit of those three communities, ought to throw light upon the disputed question of how best to secure what is needed. If neither the Atlantic & Pacific nor the Southern Pacific evidence determination soon to build, why not build ourselves? Find out what it will cost and build it! If the coast shows the capitalists of this county and Santa Cruz county that it is in earnest it can have enough stock subscribed for and enough money paid in to begin work within six months from this writing.

THE STOCK YARD.

Official Statement About Pleuro-Pneumonia.

It is telegraphed from Washington that Chairman Hatch, of the House Committee on Agriculture, has received from Commissioner Colman a reply to the resolution offered a few days since by Representative Swinburn, of New York, in which the commissioner sets forth the difficulties of attempting to extirpate or to control the pleuro-pneumonia scourge in the present state of the law and with the machinery at hand. He reinforces his recommendations previously made for more heroic methods, with additional arguments and statements.

The resolution of Swinburn seemed to question the prevalence, if not the existence, of pleuro-pneumonia, declaring, in its preamble, that since the submission of the commissioner's last report it has been denied that the contagion did exist, whereas that report said it did, and calls for full and explicit information as to the ownership and locality of the infected herds, the number of animals which have perished and the steps taken to stamp out or confine the contagion.

Extent of the Infection.

The commissioner, at the outset, declared that some of the statements attributed to his report were not contained in it, and proceeds to show that the summary by the Chief of the Bureau of Animal Industry of the discoveries made during two years was erroneously assumed by Mr. Swinburn to be a statement of the condition of affairs at the present moment. Commissioner Colman proceeds as follows: "In reference to that part of the preamble which states that it has been denied, since making the report, that the disease does not exist in the localities where it was reported to do so, I would respectfully say that my information is not in accord with the statement. If by localities individual premises are meant, then the statement may be admitted to be correct, for with pleuro-pneumonia, as with all other contagious diseases, some herds are continually being rescued from contagion while others are continually coming under its influence. If, however, we use the word localities in the sense of States or counties, I see no reason to believe that with the exception of Kentucky and Illinois there has been any material change.

"As to the proportion of 1727 affected animals which recovered and the proportion of those exposed which afterward became affected, I have no information. An inspection was made to obtain the facts as to the extent of the disease, and it was impossible with few exceptions under the existing laws to keep the infected herds under supervision or to obtain any facts as to the subsequent history of the herds.

"The publication of the fact of the existence of pleuro-pneumonia in certain herds without the adoption of prompt measures for suppressing it caused so much damage to the owners that in many cases they not only refused to give any information, but prevented the examination of the animals at subsequent visits."

The commissioner then says that the only way to learn the fate of animals in such herds is to place a watch on the premises, and maintain it day and night. For 450 herds this would require at least 900 men, a force which it was clearly impossible for the department to employ, even if the expenditure were authorized.

Quarantine Ineffectual.

As to the quarantine of infected herds, the report refers to the State laws, which are not such as to enable the department to enforce such regulations, there being nothing to prevent the removal of that part of the infected herd which has not yet shown symptoms of disease from any State into any other State.

The commissioner recommends emphatically that his department be given sufficient authority to overcome this difficulty, or that the work of eradicating the plague be left entirely to the State authorities.

The report enlarges upon the difficulties in the way of effectively quarantining infected herds on account of the loss entailed upon the owners by the suspicion thus cast upon their product. In order to overcome such difficulties, it will be necessary to place a sufficient guard over every infected premises to prevent any men or animals liable to spread the contagion from mingling with the outside world. The commissioner concludes that such a quarantine would be so expensive and so intolerable to the citizens of this country as to make its maintenance impossible.

He therefore recommends, wherever an infected herd is discovered, that all the exposed animals be slaughtered, the premises thoroughly disinfected, and the owner compensated for the loss to which he is subjected for the protection of the public.

The report gives the history of pleuro-pneumonia in Kentucky and illustrates the commissioner's opinion with incidents showing the impossibility of making an effective quarantine, and representing that the slaughter of diseased and exposed animals and disinfection of the premises to be the only way of extirpating the plague.

Number of Animals Slaughtered.

The report concludes with the figures giving the proportion of the slaughtered animals that were more or less affected with pleuro-pneumonia, which are of great interest because they demonstrate the advisability of slaughtering all animals once exposed to this contagion. Many of the affected cattle presented no symptoms of the disease before slaughtering, but the condition of their lungs was such as to make it very certain that they were capable of disseminating the contagion for an indefinite period.

The table referred to shows that from November 28th to December 16th, 2271 animals were slaughtered, of which 1031 were found to be affected. Another table shows that in addition to these, 332 small herds, numbering in all 1051 animals, were placed in quarantine in Chicago and vicinity from October 13th to November 30th, all being in private herds and stables, and the greater part of which were quarantined because of exposure to affected cattle grazing on the various commons about the city.

What is the Reason of It?

EDITORS PRESS:—I recently bought a cow, 15-16 Jersey; she was in poor condition, having been underfed both before and after calving; her milk is nevertheless rich, and for the first few churnings the butter came all right, although it took from three-quarters of an hour to one and one-half hours; it was very hard. The next time we churned for several hours, but the butter would not gather, although we could see it in the cream, and finally after two or three days we abandoned it as useless. The next time we were successful, but since then we have tried twice without success. We are quite unable to account for it. As to food, the cow gets a mash in the morning, two parts bran and one middlings, and pumpkins three times a day (all she will eat with the seeds taken out), and has access to a stack of barley straw. She also has corn-stalks to pick over during the day, and hay at night (the latter is rather mixed, ordinary wheat, bearded wheat, and wild oats, but it is very free from weeds). She still keeps lean, but appears well and gives as much and as rich milk as at first. Can any one tell me what is the matter? My wife has made butter from common cows for years; do Jerseys require different management in any way? Am I feeding too many pumpkins, or is there anything wrong with the other food mentioned?

Will some one be kind enough to tell me the proportions and ingredients to make a mash for young bulls, one year old? SUBSCRIBER.

Gubserville.

Hereford Cattle.

EDITORS PRESS:—Not long since an allusion was made to Mr. Wm. Dumphy's cattle; as I saw no reply to the inquiry, I will state the few facts I am in possession of.

The herd were brought to San Mateo after leaving quarantine and grazed about one year. A portion were shown at the State Fair and at county exhibitions, and received prizes. No sales were made of single animals to distribute into the breed through the State. The original 16 had, at the time they were sold to Mr. Dumphy, increased to 20, and report was that the price was even $10,000 for the 20 head. I saw no notice of the sale, and as so many of your readers saw this exceptionally fine lot of cattle, it may be of interest to know that they were bought by Mr. Dumphy and taken to his ranch in Monterey county. I was enamored with them, and, through courtesy, obtained the service of the bull Vanguard, and possess two nicely marked, deep red, thrifty bulls from deep milking Shorthorn cows. Others in the neighborhood have white faces from good milk stock, in all not exceeding ten head. These cattle should have a home in the grazing districts of our State. J. T. HOYT.

San Mateo.

THE APIARY.

Bee-Keeping in the Hills Near Salinas.

EDITORS PRESS:—A few miles north of Salinas, among the rich gravelly hills and narrow valleys of the neighborhood of the San Miguel canyon, between the cultivated fields, there are considerable portions of country still in an uncultivated condition and partially covered with wild flowering shrubs. Many orchard trees flourish here, and during much of the year wild and domesticated flowers combine to furnish very fine bee forage.

Several farmers are here partially devoted to bee-keeping. C. S. Swensen has about 250 colonies; Mr. Rose about the same number; Mr. Gilkey about 80; Mr. John Webb 100; Mr. Adcock perhaps 200. Several others have a

few each. Mr. Swensen last spring started in with about 175, the other 75 colonies having been added during swarming time. An estimate based on this proportion will, it is thought, approximate the number of new colonies made among those above mentioned during the last swarming season.

The past season was in this neighborhood not first-rate for the production of honey. The flowers of honey plants bloomed out rapidly during the heavy spring rains, and seemed to exhaust their vitality before the bees could do much; after the rains they soon dried up. From the flowers of a kind of black sage the bees usually in spring make much first-class honey. Wild alfalfa, so called by the people of the country—a rather small shrub of the broom family—grows here in great abundance, blooms a little later than the sage, and was during the season the main dependence for honey-making.

Mr. S. extracts and disposes of honey in comb, using section boxes for the purpose. He this season took from his 175 old colonies about 3000 pounds of honey in the comb and about 5000 pounds of the extracted. This is considered a small yield for this region, but upon comparing notes with his neighbor bee-keepers found it about an average yield for this season. Most of the bee-keepers above mentioned dispose of their honey in the comb.

While most bee-keepers herein mentioned use the Harbison hive, Mr. Swensen uses No. 8 Langstroth, and believes it the best of all hives. He uses foundation for comb in the brood-chamber. The section boxes are Harbison's, sections one and one-half inches wide, with slight foundation start at top of each.

Mr. Swensen's apiary has heretofore been badly subject to foul brood. He finally got rid of it by the following process: When he found a colony infested with foul brood, he would first give the hive a good smoking and let the bees fill themselves with honey. He would then drive the bees to an empty box and shut them up for 72 hours, then put them into another box full of foundation sheets and feed them well with what is called medicated honey, after the recipe by Chas. Muht, which is furnished by Mr. Swensen as follows: Mix eight grains salicylic acid, eight grains soda borax, one ounce water; then take honey (boiled about 15 minutes, preferred, taking off scum as it comes to top). To the honey add water by measure, in the proportion of one part water to three parts honey. Then add to each quart of this honey mixture two ounces of the acid mixture.

This treatment has, with Mr. S., proved very efficacious in ridding his bees of foul brood.

Monterey Co. McD.

POULTRY YARD.

Notes on Poultry Buildings.

EDITORS PRESS:—I would like very much to have an interchange of ideas with some practical poultry-raiser, in the matter of ventilation for hen-houses, or perhaps I had better say that I would like to have the ideas of some practical poultry-raiser in the matter, not that I have not some ideas which I am willing to put forth for the benefit of any one if he finds any benefit from them. My own practice at present, and for some time past, has been to leave in my houses, on the sides at the bottom, an opening, say two inches wide, and within a foot or so at each end of the length of the house, and if there should be any fear of skunks getting into the house through these openings, one can easily nail a lath or some narrow strip of something on in such a way as to do away with the possibility of their getting in and still not impede the circulation of air materially. For the top ventilation, of which I have satisfied myself at any rate that the fowls need very little, I simply leave the space made by the rafters resting on the top of the house-side instead of being let in. That space and the thickness of the roof boards, at the sides and ends, furnish, in my view, all the top ventilation necessary or advisable.

My first houses were in size 8x12, with a ventilation made by simply raising the last course of shakes four inches, by nailing on the end of the rafter, where the last course was to go, a piece of 2x4 scantling, and then nailing on the roof boards and shakes, and no ventilation at all at the bottom. The houses, by the way, were fitted with two roosts and were expected to furnish shelter for 50 or 60 fowls. Not being satisfied with this, I made a house with a lattice-work ventilation at the bottom of a foot in width, nearly the length of the house, and lessened the opening at the top. I liked that better because the fowls seemed brighter and more comfortable, and, of course, did better—better health and more eggs. In short, after trying sundry other ways, I find that the way in which I make them now is best for all purposes.

Also, instead of being 8x12, they are only 4x6, but still are shed-shaped, as I find them the cheapest and easiest to make and as well suited to requirements of the fowls as any other, and if tastefully made are as nice looking. I keep not to exceed one dozen fowls in each house, having two roosts lengthwise of the house, with door in one end of the house and hole for fowls to go out and in at the other. Each house has its yard 16 feet square, with the house forming part of the fence, so that one can go into the house without going into the yard. I have kept several hundred fowls of different breeds in this way and in the same yards and houses for the last two or three years, and they keep healthy and productive, and they are incubator fowls, too.

I did not intend to write so much as I have, and I had better cut it short at once. I have been in the business between five and six years raising eggs and broilers, still hatching by incubation and raising finely developed, healthy fowls, and make it pay. If you find this acceptable, I hope it will call out some one full of good practical ideas. T. B. GEFFROY.

Lodi, San Joaquin Co.

[These notes are of much interest, and we would like to have many more of them. We hope also that our poultry readers may have something to say upon the points advanced.—EDS. PRESS.]

THE FIELD.

Distribution of Cuttings and Scions.

University Experiment Station, Bulletin No. 62.

The Standard Orchard of the University contains upward of 500 named varieties of fruit. The soil is not well adapted to the growth of fruit trees, nor is the bay climate of Berkeley calculated to foster the production of handsome, high-colored fruit specimens, except of apricots, which color better here than in the interior. Notwithstanding the disadvantages of soil and climate, we have, by the use of barnyard manure, which is abundant in the neighborhood, and by careful pruning and cultivation, succeeded in growing fruit (especially late apples and pears) which, when shown in variety at the leading fairs, has received the commendation of the expert judges and the public.

The Standard Orchard of the University is maintained not as a commercial enterprise, but to serve several purposes. First, that of illustrating the instruction which is given in horticulture; second, to serve as a means of identifying fruit specimens which are sent to us from all parts of the State for that purpose; third, as a source from which any citizen of the State can obtain scions or bud-sticks either for the purpose of testing varieties under the conditions prevailing in his locality or to insert in bearing trees to establish the identity of unnamed varieties which he may have. There is such variation in the characteristics of varieties grown under different conditions in California that often we can but approximately identify a variety and send scions of that variety, true to name, for the grower to fruit for himself and thus compare the two when grown under the same conditions. In all these directions the Standard Orchard at Berkeley is proving of value to the fruit interests of the State.

The accurate records which have been kept of the tree growth and fruitage of the different varieties serve as a trustworthy guide for planting in regions adjacent to the bay and coast, where the climate in its main features most resemble that of Berkeley. The forthcoming report of the College of Agriculture for 1886 will contain tabulated results of several years' observations by Mr. W. G. Klee, from which the reader may learn what varieties promise well and those which are likely to be worthless in the section of the coast region to which allusion is made. From these observations it is also possible to indicate certain varieties which have good points, but evidently need a warmer locality to develop full quality. Such varieties are commended for trial at greater distance from the coast.

Terms.—Orders may be sent for few or many varieties, as may be desired. We cannot furnish large quantities of a single variety, because the object is to test varieties and not to furnish material for commercial propagation. Packages of scions are forwarded by mail, and applicants are required to send 10 cents for each dozen ordered, to defray expenses of packing and postage. Postal notes, payable at the Berkeley postoffice, are requested to be sent in lieu of stamps whenever practicable. Any surplus left after filling orders as far as possible will be returned to the senders, deducting letter postage.

The limits of an announcement of this kind prevent a full enumeration of varieties which can be furnished. We select, therefore, such kinds as seem to us most promising and least known to growers. Those who may desire other varieties than those named may apply for them, and they will be furnished if we have them.

Apricots.

Observations on the growth and bearing of our collection of apricots for several years warrant the naming of several varieties as well adapted to bay and coast climates in this part of the State: Blenheim or Shipley medium size, color fine, early, very productive; Beauge, (?), very handsome fruit of Blenheim type, most beautiful golden yellow, painted with brightest red, rich quality, *a clingstone*, ripening here the middle of July; Orange, possibly identical with the Royal, but grown here, has much higher color, a good bearer and early, but the tree is only a moderate grower; Sardinian, a small apricot, possibly valuable because of its earliness.

Apricots not altogether satisfactory here but likely to be valuable in warmer parts of the State: Alberge de Montgamet, large freestone, pitting very readily, color orange, flesh firm and rich; St. Ambroise, large, fine-looking fruit and tree large and vigorous; Kaisha, from Syria, pale colored, excellent flavor and quality and very juicy; Canino Grosso, fine, large fruit of Hemskirk type; De Coulorge, also fine fruit of similar type.

Apples.

The following varieties include the most promising of those in our collection which are not generally known in this State:

Benoni; shaded and striped with red; midsummer; for table and market; very good to best.

McCloud's Family; yellow; striped with dull red; late summer; very good.

Fanny; crimson red; midsummer; very good.

Julian; whitish; striped with rich red; very good.

Red Canada; beautiful red; winter; very good.

Mother; splashed and marbled with red; winter.

McAfee's Nonsuch; striped and splashed with red; winter.

McLellan; red; beautiful; very good to best.

Dalonega; striped and splashed on yellow ground.

Green Sweet; greenish yellow; very sweet.

Cardinal; yellow; middle of July; tree a fair grower; but yield here rather small.

Count Orloff; pale yellow; rather a small bearer; but good quality and good keeper.

Grimes' Golden Pippin; yellow; a fair grower; middle of September.

Disharoon; yellowish; dull red or russet cheek; a strong grower and healthy tree; fruit good and a good keeper; October and November.

Duckett; yellowish; striped and splashed with red; winter; tree fair grower and fruit good.

Equinetely; greenish yellow; covered and splashed with rich red; a fair grower and good bearer; fruit good, and keeps until March.

Rome Beauty; shaded and striped with red; a good grower and bearer; fruit good, keeping till April.

Dutch Mignonne; yellow striped and splashed with red; a fair grower and good bearer; fruit good, keeping until March and April.

Canada Reinette; large russet; a fair grower; fair bearer; quality good and a fair keeper; ripens in September.

Crab Apples.—The University collection of crab apples shown at the fairs attracted much attention by their great variety in form and color. We can furnish scions of the following varieties:

Oblong Crab, Montreal, Chicago, Coral, Red Siberian, Yellow Siberian, Currant, Transcendent, Large Yellow, Ringo, Malus Karda, Hewe's Virginia, Lady Crab, Large Red and Hysops.

Pears.

Our collection of pears is very good, and the quality of many of our winter fruits, especially, excellen'; but the presence of the summer fogs has the tendency to give them a russet surface. The same varieties grown farther from the coast will present a much handsomer appearance. The collections shown at this year's State and Mechanics' Institute Fairs were highly commended. The spraying of the orchard with the sulphide-whale-oil soap solution produced a marked effect upon the black fungus, and gave the trees and the fruit a much better appearance.

In connection with the descriptions of the following varieties, of which scions can be had, we give the time of ripening of this locality, which, compared with the greater part of the State, is very late. Those starred (*) have proved exempt from the black fungus, or nearly so, every year since fruiting here:

Annie Ogereau; very handsome pear; beginning of August.

Ott; middle of August, before Seckel; small, but delicious.

Duchesse Precoce; above medium; a steady bearer; fair quality; end of July.

*Doyenne Robin; medium to large; beginning of September; good bearer; fair quality; excellent keeper.

Dr. Reeder; small, but of the highest quality; end of September, beginning of October, after Seckel.

*Paradise d'Autumne; September and October; medium size; very good.

*Marie Louise d'Uccles; end of September; small grower, but a large and constant bearer; fruit large; good quality.

*Sheldon; large; end of September; good.

*Conseiller de la Cour; large; regular bearer; good; middle of October.

*Jalousie Fontenay Vendee; medium; good bearer; resembles in taste Beurre Gris, of Europe.

*Pitmaston Duchesse d'Angouleme; a pear entirely different from the ordinary Duchesse; is later; large to very large; so far a shy bearer; good.

*Baronne de Mello; medium; regular bearer; November; good.

Augustus Dana; large; November; very good; so far a shy bearer.

*Beurre Gris d'hiver Nouveau (new gray winter pear); a variety, we are told, which was formerly cultivated considerably in Santa Clara, but now not met with; large to very large; tree a good regular bearer; quality very good; November and December.

*Md. Lariol de Barny; large, good bearer; good (resembles Emil d'Heyst).

*Jaminette; above medium size; November and December; excellent keeper; good (extremely sweet).

Fondante de Noel; above medium; very handsome; December; good.

*Jones Seedling; small; a good, steady bearer; October; good.

Duhamel de Monceau; December; above medium; very good; tree a poor grower.

*Doyenne d'Alencon; late; ripening January 1; good grower and healthy; yield fair; quality good and a good keeper.

*Beurre de l'Assomption; middle of August; fair grower and healthy; yield good; fruit handsome and large, but not a very good keeper.

Forelle or German Trout Pear; a fall pear of great beauty.

*Louis Vilmorin; large pear resembling Clairgeau. Not adapted to coast climate; should be tried elsewhere; tree healthy and yield fair.

*De Tongres; very handsome; highly colored; a good keeper; fruit shown at the fairs attracted much attention; tree healthy and a good grower. Ripens here October 1st.

Plums.

Scions of the following varieties can be furnished:

Ontario; the best early plum we have; green; above medium; quality fair.

Black Morocco; small, blue plum; very early; cracks badly in this locality.

Lawrence's Favorite; seedling of green gage; resembling it, but larger.

Wangenheim Prune; resembles German prune, but bears better here.

Red Magnumbonum; a good plum; rather large; freestone.

Victoria; handsome, large; flesh yellow and rather coarse, but sweet; tree vigorous and healthy.

Lombard; a popular Eastern variety; medium size; violet-red; flesh juicy, but not rich.

Reine Claude de Bavay; one of the best varieties, which should be better known here; very late; greenish-yellow; flesh juicy, melting and rich.

St. Lawrence; rather large; dark-purple with light bloom; yellow flesh; sweet and rich.

McLaughlin; one of the best; large; skin thin, yellow, dotted with red; flesh yellow; very sweet and luscious.

Prince Englebert; a good variety; tree very productive.

Goliath; a large, handsome plum; deep red to purple.

Copper Plum; an old variety; tree very productive, vigorous and hardy; fruit medium size; late; should be better known.

St. Martin's Quetsche; a late prune from Germany; tree hardy and apt to overbear; fruit medium size; pale-yellow; hangs long on the tree; flesh yellow; freestone.

Peters' Yellow Gage; very good here; tree a strong grower; flesh yellow, juicy and sugary.

Prince of Wales; an old variety; very satisfactory in this locality.

Orange; very large and handsome; yellow; tree vigorous and productive.

Belgian Purple, rather large, and deep purple; handsome; tree strong and productive.

Drap d'or d'Esperen; fruit large; golden-yellow; flesh light-yellow and good quality.

Ives' Autumn; an excellent plum; yellow with red dots; large.

Royal de Tours; large; bright-red to violet; flesh high flavored; juicy; very good.

Autumn Compote; large; whitish-yellow, with crimson in the sun; flesh yellow; very good.

Diapree Rouge; tree rather a poor grower, but fruit large, reddish-purple; flesh pale-green, juicy and melting.

Reine Claude Rouge; very good to best; is somewhat known in this State.

Denniston's Superb; an excellent variety; tree a strong grower; healthy, hardy and productive; fruit round and large; color pale-yellow.

Mulberries.

The mulberry plantation on the University grounds has made a fine growth during the last year, and a few cuttings can be had of each of the following kinds: Downing's Everbearing, *Morus Multicaulis*, Russian Mulberry, *Morus Alba*, and the Japanese varieties, Lhoo and Nagasaki. The last two have made especially fine growth.

Grapevines.

The climate of Berkeley is so unsuitable to the growth of the vine that no attempt is made by us to maintain a complete collection, which, in the absence of fruit, would offer comparatively little interest. Moreover, the existence of the phylloxera on the grounds renders any extension of the culture of non-resistant vines inexpedient, the small block or vineyard being maintained only for the purpose of experimentation in relation to the repression of the pest. We have, however, endeavored to secure as complete a representation as possible of the several wild stocks that possess, to a greater or less extent, the power of resisting the inroads of the insect, as stocks for grafting, to be used in localities already infested. This collection now embraces the following species, of which cuttings will be sent to those desiring to test them, on the same terms as other scions:

American Resistant Grapevines.

Vitis Arizonica; the wild Arizonian vine.

V. Riparia; the Riverside grape of the Mississippi valley.

V. Californica; the wild grapevine of California.

V. Aestivalis; the summer or upland grape of the East.

V. Candicans; the Mustang grape of Texas.

V. Cinerea; an upland grape related to the Aestivalis.

V. Cordifolia; the Southern Riverside grape.

V. Vulpina; the Southern Muscadine, Scuppenong, etc.

V. Monticola; the mountain grape of Colorado, etc.

V. Neo-Mexicana; a wild grade of New Mexico.

V. Rupestris; the rock grape of Missouri.

Asiatic Vines, Presumably Resistant.

V. Romaneti; white; Eastern Asia.

V. Romaneti; red; Eastern Asia.

V. Opiman; from Cashmere.

V. Spino-Vitus Davidii, China.

V. Katchebourie.

Huasco Raisin Grape.—This variety, imported from Chilé, has been distributed by us for some years and is now well spread in the State. We can still furnish cuttings of the variety in lots of 10 each, for experimental growing. The cuttings are, of course, carefully disinfected before shipment, although the vines have never become infected. Reports regarding its merits as a raisin grape vary, although it appears to be a more reliable bearer than the Muscat, which it nearly resembles.

Address applications to

E. W. HILGARD.

University of California, Berkeley, Cal., Dec. 29, 1886.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Railroad Pooling.

A fanatical sect sprang up in England during the reign of Cromwell, known in history as the Fifth Monarchy men. They held that the fifth great monarchy spoken of in biblical prophecy, destined to break and stamp in pieces all other kingdoms, had begun with the rule of that despotic chieftain. There ever has been a strange belief founded upon a bit of Hebrew prophecy of a monarchy, diverse from all other kingdoms, that shall devour the whole earth, attempt to change times and laws and trample the people as grass. Prophecies and dreams may sometimes come true, but in a way the liveliest fancy little anticipated. What seemed to the rapt vision a goodly land at a distance, may turn out a heap of rock and sand, inhabited by wild beasts and savage men.

Now all prophecy and romancing aside, there is steadily and silently spreading a mighty power in this land in the shape of a network of railroads extending from the Atlantic to the Pacific, and from Maine to the Gulf States; it is coiled around all the industries of the land with a tentacle fastened to every wheat sack and box of fruit. It is a power that has no cannon, no fortifications, and yet it levies tribute at its own arbitrary will, and is pushing out toward the north, south, east and west, crushing all in its way. It is a power that has no patriotism, no politics. While there is a full appreciation of the value of railways and of the difficulties of successfully operating them, the public will never be convinced that it is wisdom or justice to leave this vast power to grow without check and regulation. That is the object of the Interstate Commerce bill now before Congress. A recent dispatch says there is rapidly developing in the Senate a strong opposition to the measure, and if the short-haul and anti-pooling clause are not abandoned it will most likely suffer a defeat. But it is obvious that we must take a start, and the sooner the better. The people demand such legislation and there is no mistaking their will. The party or politician that heeds not the warning will be left to the cyclone. The measure will be a little clumsy at first, but experimentation is the only way to the right.

But one thing is clear—the anti-pooling clause under no circumstance should be abandoned. It is the pith of the whole question. The fact that the whole railroad opposition hangs on this peg ought to arouse suspicion. If railway managers can combine when they please for the purpose of preventing competition in passengers and freights, then the throne of a despot is planted in our midst. What is pooling but the plot of a minority to fleece the majority? Forestalling in the provision market has ever been rigorously punished by law. At the present time the legislative mechanism of a great State is being evoked to suppress the combination of sundry coal companies to raise or depress prices at their caprice. Is there any difference between coal pooling and freight pooling? Already coal pooling is indictable in some States as a criminal conspiracy against the rights of the people. Railroad pooling is equally criminal in purpose, and should be made equally illegal. It may be more difficult to suppress, owing to its widely expanded interstate operation, but the Reagan feature of the bill now before Congress makes railroad companies as easily arraigned before the proper courts as the coal companies now are in several States. It has been said that if this bill becomes a law it will drive many weak railway companies into bankruptcy. Let them go. It is the inevitable law of trade. Why should railroads combine to put up the prices in order to prop up the weaker companies, any more than merchants combine to prevent the failure of small dealers? Then it is the people that must always pay this advance of rates, and they have had enough of the monstrous usurpation. Whatever modification this bill may receive, by all means preserve the anti-pooling clause. It is the vitality of the whole measure.

Installation at St. Helena.

EDITORS PRESS:—St. Helena Grange met on Saturday, January 1st, at 10 A. M., for the purpose of installing officers for the ensuing year. Our hall was beautifully decorated with evergreens and mottoes appropriate to the occasion. We would have been pleased to see some other members of the Order with us, but, unfortunately, the announcement had not appeared in season in all the papers. The installation passed off well, after which all repaired to the lower hall to partake of the lunch which had been prepared. At 2 P. M. the hall was thrown open for the reception of New Year's callers, and about 50 ladies and gentlemen responded. During the afternoon refreshments were served, interspersed with music and social greetings. Everything passed off pleasantly and was in perfect harmony with the delightful weather. Fraternally,

WM. PETERSON, Sec.

St. Helena, Jan. 4, 1887.

The Senatorship.

It may seem rather unkind to wish any man a hard road, but we must acknowledge that, in common with the people of this State, we are glad to see that Mr. George Hearst is not to have a smooth path to the senatorship. This will give the legislators a good chance to stop and think whether, on the whole, it is for the popular interest to send a man to the United States Senate who could not possibly be chosen to such an office by vote of the people. We have had enough instances of choosing men by legislatures whom the people would forcibly reject if their names came up at the polls. There is a strong movement in favor of amending the Constitution so that senators can be elected by popular vote, and it is well enough to ask how a candidate would stand by such a standard. We certainly do not want men to decide public questions who are so entangled in private and corporate interests that they cannot act disinterestedly on great questions in the struggle of the people against the aggression of monopolies; we do not want for our advocates and judges on such matters the men who are the greatest monopolists in the country.

The telegraph announces that Senator Stanford will speak against the Interstate Commerce bill. Of course he will, and as president of a railway company it would be proper enough for him to do so; but being such an officer, he speaks not as such, but as a representative of the people. It is one of the greatest inconsistencies of the day—the party arraigned pleading his own case, not as an offender, but as the judge. If we place George Hearst beside Stanford, we double the trouble, and between the two we probably succeed in representing all the oppressive monopolies which are crushing us. We have Stanford to smite us on one cheek, and seem to be turning the other for George Hearst to pound on.

There is apparently a determined minority at Sacramento who do not approve of Mr. Hearst's candidacy for these and many other reasons. We certainly wish that they may make some impression upon the majority, which will result in a better selection being made. We hope there are too many independent men in the present Legislature to elect any man to the U. S. Senate for the principal reason that he has furnished the campaign funds that secured the success of any party.

From the National Lecturer.

Under date of Christmas, Bro. Whitehead, Lecturer N. G., writes a genial personal letter to the Master of Temescal Grange. He speaks, among other things, of having just returned from "a grand meeting of the Maine State Grange," and finding on his desk reports from several others, all showing hopeful signs.

Toward the close he says: "I thank you for the invitation to visit California. I have a number of friends in the State, and was quite temoted to go on with my comrades of the G. A. R. last summer. Perhaps by co-operation of all concerned it might be arranged that I can visit you, say next year (I refer to 1888), making calls among the Granges of Colorado, Oregon, Idaho, etc., when going or returning."

Sister Jeanne C. Carr, Bros. Ewer and Dewey, and other California Patrons, have lively and agreeable recollections of Bro. Whitehead speaking at the Centennial Encampment in Philadelphia, when 1000 to 1500 was but an average attendance at those pleasant evening meetings, and will rejoice to see his face and grasp his hand and hear his earnest voice again. Whenever he pays his visit to the Pacific Coast we are sure he will receive the warmest and heartiest of welcomes.

Grange Elections.*

BENNETT VALLEY GRANGE.—Dec. 18: Don Mills, M.; J. M. Talbot, O.; A. R. Lacque, L.; W. P. Crane, S.; J. P. Whitaker, A. S.; Mrs. A. Lacque, C.; N. Carr, T.; A. P. Crane, G. K.; J. B. Whitaker, Sec.; Mrs. J. M. Talbot, Ceres; Miss S. A. Lacque, P.; Miss Ida B. Lacque, F.; Miss Nellie Peterson, L. A. S.; G. N. Whitaker, Trustee.

POTTER VALLEY GRANGE.—Dec. 18: W. A. Grover, M.; H. S. McGee. O.; S. H. McCreary, L.; W. S. Vaun, S.; G. D. Neil, A. S.; T. W. Dashiell, C.; F. M. Hughes, T.; W. V. Killbourne, Sec.; J. Lierlev, G. K.; Miss Emma Neil, P.; Miss Clara Brower, F.; Mrs. Laura Lierley, Ceres; Miss Addie Dashiell, L. A. S.

ST. HELENA GRANGE.—Dec. 18: J. Norton, M.; H. J. Lewelling, O.; Jane L. Peterson, L.; W. Pinkham, S.; Chas. A. Storey, A. S.; W. B. Storey, G. K.; W. Peterson, Sr., Sec.; Mrs. N. Hewes, C.; H. Meacham, T.; Mrs. Ella Storey, Ceres; Mrs. Edna Norton, P.; Miss Maggie Fountain, F.; Mrs. C. Castner, L. A. S.

SUTTER MILL GRANGE.—Dec. 11: F. J. Veerkamp, M.; Wm. Nichols, O.; Wm. Valentine, L.; E. M. Smith, S.; J. Scolari, A. S.; A. Morely, C.; J. Crocker, T.; F. Veerkamp, Sec.; E. Veerkamp, G. K.; Geo. Ramsey, Trustee, Sister J. Crocker, P.; Sister L. Peterson, F.; Sister W. Stearns, Ceres; Sister A. Veerkamp, L. A. S.

*Secretaries, or other officers, are invited to send us lists of officers elected, date of installations, and all other interesting matter for publication.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

It is the design of these weekly columns to give not alone the words and thoughts of one individual, not to advance the Grange in any *one* direction alone; neither are they prepared for Patrons only; but rather to gather from as wide and *varied* a field as possible such ideas, lines of thought, work and progress as will illustrate the great mission of the Grange in the neighborhood, in the State and in the nation; its social, educational and financial features. Thus "line upon line," proving its principles *true*, its aims *high*, its work *successful*. Sent forth with the hope that they will encourage the despondent, strengthen the strong, and secure not alone the good wishes and respect of our unorganized farmers—but their *help* by joining with us and working with us for home and farm and native land.

It is a fact too plain to be longer disguised, that the wealth produced by the masses is gathered in by a few men, when compared with our nearly 60,000,000 of people, and after it is so gathered, consolidations and monopolies are formed to control the political element, elections, legislation, courts and government to an alarming extent. This evil should be corrected—it must be corrected—or our American liberties will soon depart forever, and the American farmers become the serfs of a moneyed aristocracy. The only remedy is organization and education. The Grange is the organization and its highest object is education.

Excursion rates were refused the Patrons of Indiana for their State Grange meeting last month by the "Central Traffic Association," composed of 30 different railroads, because said association had agreed to issue them only to the following classes of societies: Religious, benevolent, educational or medical; and, "as your society does not come under either of the above heads, we cannot under our rules grant you any reduction."

Who will educate the railroads? The Grange *does* come under the first three heads and perhaps the fourth also. Its U. S. Supreme Court and congressional medicine is hard to take. A plank in the Grange platform reads: "We shall advance the cause of education among ourselves and for our children by all just means within our power."

H. E. Hayes, Worthy Lecturer of the State Grange of Oregon, has invaded the Territory of Idaho, and to good purpose. Idaho is under the jurisdiction of the Worthy Master of the Oregon State Grange. Brother Hayes has organized two good Granges within a month in Idaho. They are live, active, enthusiastic Granges, and report to the Secretary of the National Grange that they "are in Idaho county, Idaho Territory, to stay, progress, build up the Order and be a voice and power in the National Grange ere long."

The printed proceedings of the Twentieth Annual Session of the National Grange, a book of 195 pages, are now being sent out through the different secretaries of State Granges; two copies for each subordinate Grange. The important reports of officers and committees should be carefully read and studied in every Grange, that the plans and work of our Order may be well understood, and then all should help earnestly in the work of carrying them on to success.

The Patrons of New Hampshire are arranging for a series of lectures during the winter, covering all parts of the State. Six different lecturers will follow each other in this lecture course. Massachusetts Patrons are also to have a series of lectures by the Lecturer of the National Grange in February. Brother C. L. Whitney will continue his work in Nebraska during January. He reports six Granges reorganized and ten more nearly ready to take up the work. Brother D. H. Thing, Past Master and present Lecturer of the Maine State Grange, has accepted the appointment as one of the four Deputy National Lecturers provided for at the last session of the National Grange. He will work in some nine different States, and will be busy nearly all the year. Pennsylvania State Grange will follow up the successful lecture work of last year.

Illini Grange, No. 772, Macon county, Illinois, reports 12 new members.

North Brookfield Grange, Massachusetts, has just received 17 additions.

Indiana Grange, No. 313, Pa., dedicated a fine new hall a few weeks ago, and has seven applications for membership.

Moorestown Grange, No. 8, N. J., has just completed a fine new Grange hall of brick, two stories; number over 100 members.

Connecticut Patrons are arranging for a Fire Insurance Company "for Patrons only."

"Let us remember that the crowning glory of our organization is to educate and elevate the American farmer, and bring good cheer to the family household."

W. H. STINSON,
Master N. H. State Grange.

Question for discussion by subordinate Granges: What proportion of the profit paid by producers upon the cost of farm products goes to the farmer, and how can we "save for wife and home an honest share of what our harvests yield?"

Several matters are now before Congress that every Patron, every farmer and every Grange should take *prompt* action upon.

1. *Favoring* the bill creating a Department of Agriculture and Labor, with its head a member of the President's Cabinet.

2. *Favoring* the Reagan interstate commerce bill, protecting farmers and others from unfair discrimination in charges, etc.

3. *Favoring* the Hatch Experimental Station bill, appropriating $15,000 annually to each State to sustain an experiment station.

4. *Opposing* all Tariff legislation being asked for by manufacturers and others that will place "raw materials" (all farm products, wool, hides, hemp, flax, etc., are "raw materials") on the *free* list, and leave a High Tariff on the manufactured goods that farmers have to buy.

5. *Opposing* all legislation that will cut off, hinder or prevent the working of the oleomargarine law.

Write personal letters to the Congressman of your district and both your U. S. Senators. Prepare a memorial on these subjects, attach the name of the Master and secretary of your Grange, make three copies, and send one to your Congressman and one to each of your Senators.

"Act, act, in the living present,
Heart within and God o'erhead."

INSTALLATION AT HAYWARDS.—Again Eden and Temescal Granges will have a joint installation of officers. The meeting will open at ten o'clock to-day in Haywards. Ten candidates are expected to be instructed in the fourth degree. This is complimentary to the workers of Eden Grange. Bro. J. V. Webster was a welcome attendant at Temescal Grange last Saturday evening, and will doubtless take part in installing the Worthy Secretary of the State Grange, as Master of Eden Grange. Many other representative Granges, it is hoped, will be present. All P. of H. are invited, and we can vouch that Eden's Harvest Feast will be ample and good enough for all who can attend.

GRANGE ITEMS.—We note in the *Patron* that Potter Valley Grange expected to add 14 to its membership at its New Year's meeting....A large concourse of friends attended the funeral of Mrs. Wm. Tibbits, an esteemed sister in Sacramento Grange....Magnolia Grange had a good average attendance last year, gained 17 members and got clear of debt....The ball at Coloma, given for the benefit of Bro. Veerkamp, whose house was burned recently, was largely attended and the receipts were satisfactory.

INSTALLATION AT YUBA CITY.—The *Sutter Farmer* states that the meeting of Yuba City Grange, appointed for January 8th, has been postponed until Saturday, the 15th. The Grange will be called to order at 10 A. M., for the purpose of conferring the first and second degrees. At 1:30 P. M., the officers-elect will be installed by State Lecturer Flint. The installation will be public, and all friends of the Order are cordially invited.

SACRAMENTO GRANGERS' BUSINESS ASSOCIATION.—A notice in our advertising columns announces the semi-annual meeting of this very popular association in Sacramento, January 11th, at 10 o'clock A. M. It is desired that there be a full attendance.

Stockton Notes.

[Written for the RURAL PRESS by MRS. W. D. A.]

New Year's Day came in merrily through the thick fog that, in lieu of rain, keeps grain growing and pastures quite good; but the noon sun, warm as April, broke forth and everybody basked in its rays, and wished everybody a "Happy New Year," and rested from business routine and thought the outlook for city and county brighter. Wheat was up to $1.55. A $220,000 courthouse was to be started; another bridge to be built across the San Joaquin at Mossdale, Sutherland's ferry, costing $29,940. Main street was fine with basalt pavement and concrete sidewalks—all of the streets in good order, elegant and tasteful dwellings were constantly going up. Permanence and thrift showed everywhere. A free postal delivery was likely to be got through the efforts of Congressman Loutitt, who is also struggling hard, with a good show of success, to get a large river and harbor appropriation from Congress, to dredge and improve the San Joaquin and Stockton and Mormon channels.

But as the days wear on, anxiety for rain fills country and town. The west side needs rain to put in a crop, and some black land needs it, and much grain that is sown will not come up without it. Some are plowing the grain in which will come right up; others feel that it is best to wait for the month to foretell the season. Dense fogs help, but after the good time to put in grain, rain is the one great want that all signs fail to supply. Now that the Legislature is met, people feel that it must pass some measure for district distribution in the interest of the people, of the snows hoarded in the watersheds of the State, that will insure a part of a crop, at least, to the cultivator of either fruits or grain.

At Christmas, turkeys rose from 11 to 16 and 25 cents a pound. Unfortunately most farmers had parted with theirs before the rise. Usually Stockton markets yield a fair profit to poultry-raisers.

Purple figs dried and put without pressing into a cracker box, sold at the groceries for four cents a pound lately. Nowhere in the world can figs be cured more quickly than in this dry, sunny valley, with no fogs till December. Hot lye from wood ashes kills insects, and if packed next day the figs are pliant and sugary. Native black walnuts bear full each year, and sell for 10 cents a pound; they have been pronounced by Eastern visitors better than theirs. W. B. West has magnificent French walnuts in bearing. Won the gold medal at the late Citrus Fair, at Sacramento, for them. He has done valuable work in developing the capabilities of this soil and climate for useful fruits, nuts and berries.

A CITRUS FAIR is to be held in the Horticultural hall, at San Jose, during the second week of February.

AGRICULTURAL NOTES.

CALIFORNIA.

Calaveras.

CORN YIELD.—EDITORS PRESS:—In reading the columns of your paper I noticed an article on corn-raising. I have been raising corn for several years and have never raised less than 2500 pounds to the acre on any of my land planted; an average yield will reach 3000 pounds per acre or more. Last year I planted eight acres of corn which yielded 5000 pounds per acre of shell corn, besides many loads of pumpkins, and without irrigation. The ground was plowed three times and kept clean of weeds. Have always raised pumpkins and squashes among my corn, and could never see that they were any damage to the corn. My place is situated in Calaveras county on the Calaveras river. —A SUBSCRIBER, *Jenny Lind*.

Inyo.

IRRIGATION PROJECT.—*Independent*, Jan. 1: In the Sierra mountains, on the west side of Owens valley, are many small lakes. One of these is near the head of Black Rock canyon, a few miles north of Independence. It is the intention of Mr. C. B. Rawson to tap this lake during the coming summer, and bring the water down into the valley for irrigation. He thinks a tunnel of about 300 feet in length would tap the lake at a depth of about 40 feet. This would give a large supply of water.

Lassen.

STOCK RANGE.—Reno *Gazette:* Albert Gallatin, of Sacramento, has recently purchased the land on the shores of Eagle lake for 20 miles. He will use his Red Bluff ranch for a winter range and the Eagle Lake property for a summer range. He will not move his horses and mules. His cattle are all good grade, and he is using none but thoroughbred Herefords.

Placer.

FRUIT FROM DUTCH FLAT.—Grass Valley *Tidings*, Dec. 31: This year the fruit shipments from Dutch Flat have been 37,780 lbs. by freight and about 3000 lbs. by express, making a total of 40,780 lbs., mostly of apples and pears, with some plums and peaches. Many of the growers there find a good home market, and others are holding their apples in expectation of better prices later on.

GRAPE SHIPMENTS.—*Republican:* At Rocklin this season Hawk & Wood shipped seven carloads of grapes; the California Raisin Company, six carloads of raisins; Layton Bros., two carloads of grapes; Mr. Himes, two carloads of grapes; and some smaller lots have been shipped by other persons which would make the total at least 350,000 pounds.

Sacramento.

PLANTING ORANGES.—*Record-Union*, Dec. 31: The orchardists of the lower Sacramento, whose success in raising peaches and other fruits made their locality famous and the ranch-owners wealthy, have turned their attention to citrus fruits. George Smith, whose ranch is a portion of the old Jared Runyon place, about a mile below Courtland, is arranging to plant 200 young orange trees of choice variety on his mound—the highest Indian mound on the river. Mr. Smith has a large number of Tahiti orange and Sicily lemon trees on his ranch which have attained a hight of between two and four feet from the seed in one season. Peter Green, on Randall island, above Courtland, will plant 100 orange trees this winter, and other fruit men down there express their determination to give citrus fruit raising a thorough trial at once.

San Bernardino.

EXPERIMENTING.—Ontario *Record:* H. J. Rose has lately received a case of plants from the Gov't Botanical Gardens, Jamaica. He intends trying how the climate of California suits the mango, star apple, custard apple, naseberry, Malay apple, alligator pear, etc. Among the number are the following spices: Ginger, cinnamon, nutmeg, allspice; and flowering shrubs, including poinsettia, bougainvillea, ylang, etc., are also included. We hope the experiment will be a success.

San Diego.

TO MAKE OLIVE OIL.—National City *Record*, Dec. 24: Material for the new olive oil factory is now being put on the ground. The building will be 115 feet deep, two stories high, and is located just south of the new Land and Town Co.'s office. Frank A. Kimball, the owner, states that work will be pushed as rapidly as possible. This will be one of the most important enterprises in National City, making a permanent market for all the olives raised in this section.

San Luis Obispo.

POULTRY NOTES.—Paso Robles *Leader:* Mr. John Marden, one mile from Estrella P. O., has made a business of raising poultry for about three years, and from 200 hens he realized as much as some of the extensive grain farmers. Mr. Dane, of Hog canyon, raised about 200 turkeys for market this year, realizing about 12 cents per pound net. The fowls average 12 pounds each.

Sonoma.

WHEAT ACREAGE.—*Democrat*, Jan. 1: More land in this county is being sown to wheat the present season than has been before for many years. Some years ago the Hessian fly became so destructive that farmers lately have been planting their land to other crops. The present season opened favorably—so early that farmers began sowing wheat after the first rain, and are now in hope that when the season arrives when this insect is so destructive, the wheat will be too large to be affected much.

COAST DAIRIES.—P. D. Quinlan, a prominent dairyman, reports feed along the coast good, and the farmers in that section buoyant over the encouraging outlook for the coming year. Most of the dairy ranches on the coast are rented and leased to Swiss, who seem able to make more out of them than the owners themselves. Dairy lands are being rented for the coming year at prices slightly in advance of what they were last season, which is a pretty good indication of what the outlook is. Butter and cheese promise to be of a better quality than usual. Not many of the dairies, however, will change hands, most of them being rented for the coming year by the same parties who occupied them the present season. The dairymen have recently clubbed together and purchased a schooner by which to ship their produce to S. F.

PLANTING PROSPECTS.—Six years ago Capt. Grosse established an olive orchard on Rincon Hights, several miles east of town. His orchard now comprises many acres, and he is still planting. This and other experiments have been so satisfactory that the number is annually increasing. We learn that upward of 50,000 olive trees will be planted in Sonoma county the coming spring, 40,000 in Placer county, 25,000 in Gilroy, 14,000 in Alameda and other counties adapted to their culture.....On the Fountain Grove farm, north of town, several trees of oranges are now in full bearing, and the fruit is pronounced superior. Other experiments in different parts of the county have been equally successful. The great drawback at present is the cost of trees, choice varieties bringing from $2 to $3 each. Most people are deferring the planting of oranges in considerable numbers until prices are lower, which will probably be several years.....The demand for peach trees is slightly in advance of what it was last year. While they do not thrive well except upon a sandy soil, there are large tracts of land in the county which possess all requisites for their growth. The lack of a market has, for several years, prevented many from planting; but with the assurance of our new railroad this industry has received a new impetus.

Santa Cruz.

PERSIMMONS.—*Pajaronian*, Dec. 30: Hanging in W. V. Gaffey's office are several bunches of fine persimmons. A few years ago he bought a lot of persimmon trees from James Waters and set them out on his mountain ranch. They have been in bearing two or three seasons, and each year have shown a good yield.

Tulare.

A SIMPLE DRIER.—Hanford *Sentinel:* Geo. Thyark's new raisin-drier is proving a success. It consists simply of a board building 16x24 feet in one room, with a ceiling about 12 feet high, in which are two ventilators. In the center is a trench three feet deep. In this is a large box-stove, attached to which is a sheet-iron drum about 10 feet long. Racks are built with grooves to receive the regular trays upon which the grapes are brought from the vines, with only space enough to admit of free circulation of the air, which, with the stove, is at a necessary temperature to do the work of drying the fruit, which is kept from 90 to 100 degrees. We visited it on Monday and found it full of choice fruit, the last of his crop, which was all cleaned up and placed inside on Saturday, just before the rain. The drier is simple and working satisfactorily.

FINE HEREFORDS.—*Times:* Jasper Harrell and W. H. Hammond this week purchased of C. B. Smith, of Fayette, Missouri, two thoroughbred Hereford bulls, which were delivered in Visalia Monday morning, and were an attraction for many stockmen all day. Mr. Hammond's bull is four years old and weighs 1900 pounds; Mr. Harrell's is three years old on the 23d of this month and weighs 1600 pounds. Neither of the animals is what would be called fat, but both are in good condition. They are fine animals and are meat all over, from head to tail and down to the hoof. Mr. Harrell is the possessor of two full-blooded Hereford cows and three young bulls, and with the present addition to his stock has a good starter in the business. Mr. Smith values the mother of the Harrell bull at $1200, and says she could be sold for that at any time. Probably before the week is out two or three more of those bulls will be sold to parties living in Visalia. Messrs. Harrell and Hammond paid $400 each for their animals, which is considered dirt cheap.

MARKET GARDENING.—*Register*, Dec. 31: East Tulare is to have a market garden that is not the property of Chinamen. While north recently, Mr. T. Bacigalupi induced three Italian gardeners of Stockton to embark in business in Tulare. They purchased 20 acres from Mr. A. Y. Moore, and are erecting buildings and preparing the ground for the coming season. They understand their business thoroughly.

Ventura.

LIVE STOCK.—*Free Press*, Dec. 31: Stock-raising in this county, under Mexican rule, consisted solely of cattle and horses; but when the Americans took possession they made sheep-raising a specialty. Under their supervision, the county has supported as many as a quarter million head at one time, and at the present there are something like 75,000 head in the county. Recently imported draft and other horses have been introduced, the last assessment roll indicating 3000 American horses, over 2300 of which are graded. Percheron, Belgian, Hambletonian, Morgan and other breeds have been imported. Among cattle there have been imported Durhams, Jerseys and Holsteins. The county is in advance of many others in the best breeds of horses and cattle, farmers having reached the conclusion that good stock can be raised as easily as the poorer varieties and to much greater profit. The industry has recently received a fresh impetus in this section. The raising of hogs is also engaged in extensively and profitably. Diseases among stock are unknown here, except scab in sheep, which has not proved destructive. Poultry-raising has also proved profitable.

Yolo.

GRAPES AND RAISINS.—*Democrat:* From 140 acres of the Briggs vineyard, 21,500 boxes of raisins have been packed and 175 tons of grape converted into wine. Estimating the raisins at $1.50 per box and the wine grapes at $10 per ton, there is a gross product of $34,000, or an average of $243 per acre. We are unable to estimate the entire cost of placing this crop on the market, but the profits are large and speak well for the production of Yolo county. Including the foregoing, Mrs. G. G. Briggs and family have a raisin crop in Yolo this year of 58,000 boxes. Such a return from vineyard lands is sufficient to impress the home seeker favorably. These figures are reliable and can be verified without trouble.

NEVADA.

BEEF.—Reno *Gazette*, Dec. 28: The beef market is in a very unsatisfactory condition. Everything points to a glut during February. The haystacks are fast disappearing, and at least half the stock now on the meadows must either go to the shambles or hunt new feeding ground very soon. This state of things butchers are taking advantage of. The fact is, shippers do not want cattle except at low figures—five cents is the top price at Reno for a good grade of steers, and they must be cut in the middle at that. Cattlemen are somewhat discouraged. Taking the brightest view of the situation, a large tail end of the cattle left here after the middle of February must go to the hooks at very low rates. An estimate of the beef cattle now in Nevada, made for Mr. Ricky by J. F. Triplett, shows that there are about 20 000 head east of the mountains. There are 9500 head on the meadows; Honey lake, 2500; Sierra valley, 800; Lovelock, about 2000. Outside of these are not over 1200 head of cattle on the Humboldt. Bradley and Russell had 500 head up, but turned them out rather than sell at present prices. They are shipping up 100 tons of hay from Livermore to feed at Battle Mountain. They get very low rates.

Assembling of the Legislature.

The new State officers have assumed their trusts excepting the new Governor, having been inaugurated on Thursday.

The Assembly organized promptly by the election of Hon. W. H. Jordan, of Alameda, as speaker. The Senate organized on Wednesday afternoon by choosing Stephen M. White, of Los Angeles, president *pro tem.*, and E. H. Hamilton, of Alameda, secretary. The Assembly began business on Wednesday afternoon. The first bill was introduced by Mr. McDonald, it being an amendment to Section 1, Article XIII of the Constitution, exempting growing vines and fruit trees from taxation.

We give on this page the full list of State officers now in charge, and of the members of both houses, with the districts they represent and their residences. These lists should be kept for reference.

MAJOR ROBERT BECK.—The friends of Major Robert Beck, formerly Secretary of the State Agricultural Society, and more recently Secretary of the California Jersey Cattle Club, will be pained to hear of his death. He has been a sufferer of late by rheumatism and neuralgia, and it was seen by his friends that he was failing fast. He was missed Dec. 23d, and on the morning of Jan. 4th his body was found in the bay. Whether he fell in by accident or sought death in a fit of mental aberration is not known. He was by birth a Pennsylvanian, and came to California in 1849.

POISONING RABBITS.—F. H. Roberts, of Lookout, has been telling the Adin *Argus* how to kill off rabbits. His plan is to build a platform of narrow boards about 18 inches from the ground, at a place that stock cannot reach. On top of this platform scatter pulverized salt and arsenic, or any similar poison. During the wet season the poisonous water runs through to the ground and thus makes a "lick" for these animals, which they will soon find and frequent. This is said to be one of the best modes of poisoning them, and we would like to see it fairly tried.

RAISING MULES.—The Petaluma *Courier* thinks it next in order for some enterprising lover of good stock to import a few choice Maltese or Spanish jacks, and go into the business of raising mules. These jacks are said to be the largest and finest in the world, and, crossed with our big American mares, might breed an animal that would at three years old sell readily for at least $250 to $300.

The New State Government.

State Officers.

Governor	WASHINGTON BARTLETT
Lieutenant-Governor	R. W. WATERMAN
Secretary of State	WM. C. HENDRICKS
Controller	JOHN P. DUNN
Treasurer	ADAM HEROLD
Attorney-General	GEORGE A. JOHNSON
Superintendent of Public Instruction	IRA G. HOITT
Surveyor-General	THEODORE REICHERT
Clerk of Supreme Court	J. D. SPENCER
Associate Justices of Supreme Court, short term	JACKSON TEMPLE
Associate Justices of Supreme Court, long term	T. B. MCFARLAND
Associate Justices of Supreme Court, long term	A. VAN R. PATTERSON
Railroad Commissioners, 1st district	A. ABBOTT
Railroad Commissioners, 2d district	P. J. WHITE
Railroad Commissioners, 3d district	JAS. W. REA
Board of Equalization, 1st district	GORDON E. SLOSS
Board of Equalization, 2d district	L. C. MOREHOUSE
Board of Equalization, 3d district	C. E. WILCOXON
Board of Equalization, 4th district	JOHN T. GAFFEY

Senators.

DIST.—NAME.	COUNTY AND POST OFFICE.
1-John P Haynes, *D*	Humboldt, Del Norte..Eureka
2-J M Briceland, *D*	Trinity, Siskiyou, Shasta, Shasta
3-W H Patterson, *R*	Modoc, Lassen, Plumas, Sierra Cedarville
4-Albert F Jones, *D*	Butte..Oroville
5-A Walrath, *R*	Nevada..Nevada City
6-A Yell, *D*	Mendocino, Lake..Ukiah
7-A P Hall, *R*	Placer, El Dorado..Penryn
8-John Boggs, *D*	Colusa, Tehama..Princeton
9-H C Gesford, *D*	Yolo, Napa..Napa City
10-E C Hinshaw, *D*	Sonoma..Petaluma
11-James McCudden, *D*	Solano..Vallejo
12-A L Chandler, *R*	Yuba, Sutter..Nicolaus
13-F R Dray, *R*	Sacramento..Sacramento
14-A Cammetti, *D*	Amador, Calaveras..Jackson
15-J P Abbott, *R*	Marin, Contra Costa..Martinez
16-F J Moffitt, *D*	Alameda..Oakland
17-Henry Vrooman, *R*	Alameda..Oakland
18-M W Dixon, *D*	Alameda..Mission San Jose
19-John Lenahan, *D*	San Francisco..151 Tehama
20-Thomas J Pinder, *D*	San Francisco..321 Broadway
21-J J Sullivan, *D*	San Francisco..936 Shotwell
22-J N E Wilson, *R*	San Francisco..Old City Hall
23-P J Crimmins, *R*	San Francisco..45 Ritch
24-P J Murphy, *D*	San Francisco..29 Russ
25-D J McCarthy, *D*	San Francisco..1128 Folsom
26-T H McDonald, *D*	San Francisco..State P'g Office
27-T J Clunie, *D*	San Francisco..836 Turk
28-L Spellacy, *D*	San Francisco..2529 Bryant Av
29-B F Langford, *D*	San Joaquin..Lodi
30-A J Meaney, *D*	Merced, Stanislaus, Tuolumne Merced
31-A W Crandall, *R*	Santa Clara..San Jose
32-E B Conklin, *R*	Santa Clara..San Jose
33-J D Byrnes, *R*	San Mateo, Santa Cruz, S. Mateo
34-G G Goucher, *D*	Alpine, Mariposa, Mono, Fres'o Mariposa
35-B V Sargent, *D*	Monterey, S. Benito, Monterey
36-John Roth, *D*	Tulare, Kern..Traver
37-George Steele, *R*	S L Obispo, S Barbara, Ventura San Luis Obispo
38-S M White, *D*	Los Angeles..Los Angeles
39-L J Rose, *D*	Los Angeles..San Gabriel
40-W W Bowers, *R*	S Bernardino, S Diego, S Diego
Total Democratic Senators	26
Total Republican Senators	14

Majority Democratic, 12.

Assemblymen.

DIST.—NAME.	COUNTY AND POST OFFICE.
1-R H Campbell, *R*	Del Norte, Siskiyou
2-George Williams, *R*	Humboldt..Ferndale
3-J F McGowan, *R*	Humboldt..Eureka
4-C W H Shanahan, *D*	Trinity, Shasta..Anderson
5-W D Morris, *D*	Modoc, Lassen..Lookout
6-R H F Variel, *R*	Plumas, Sierra..Quincy
7-W P Matthews, *D*	Tehama..Tehama
8-Allen Henry, *D*	Butte..Chico
9-L C Granger, *D*	Butte..Oroville
10-T J Hart, *D*	Colusa..Colusa
11-Philo Handy, *R*	Mendocino..Covelo
12-L H Gruwell, *D*	Lake..Lower Lake
13-George Ohleyer, *D*	Sutter, Yuba..Yuba City
14-Josiah Sims, *R*	Nevada..Nevada City
15-John I Sykes, *R*	Nevada..Grass Valley
16-John Davis, *R*	Placer..Rocklin
17-Henry Mahler, *D*	El Dorado..Coloma
18-H W Carroll, *R*	Sacramento..Sacramento
19-L S Taylor, *R*	Sacramento..Sacramento
20-Seymour Carr, *R*	Sacramento..Clay Station
21-L B Adams, *D*	Yolo..Knight's Landing
22-F L Coombs, *R*	Napa..Napa City
23-G W Morgan, *D*	Sonoma..Fort Ross
24-W J Hotchkiss *D*	Sonoma..Windsor
25-J McDonnell Jr, *R*	Sonoma..Sonoma
26-Frank O'Grady, *D*	Solano..Vallejo
27-Robert J Currey, *R*	Solano..Dixon
28-J W Atherton, *R*	Marin..Novato
29-James B Brown, *R*	San Francisco..14 Willows Av
30-Jos Burnett, *R*	San Francisco..144 Second St
31-Edwin Lewis, *D*	San Francisco..546 Mission
32-A M Lawrence, *D*	San Francisco..608 Powell
33-J J Callaghan, *D*	San Francisco..921 Natoma
34-Michael H Barry, *R*	San Francisco..8 Glover
35-J H Colbert, *D*	San Francisco..450 Third
36-C F Curry, *R*	San Francisco..334 Clementina
37-Thomas M Seary, *D*	San Francisco, 436½ Clementina
38-Daniel S Regan, *D*	San Francisco..546 Stevenson
39-James E Britt, *D*	San F..No. 3 H & L Fire Dept
40-Andrew J Martin, *R*	San Francisco..1414 Folsom
41-Henry R Mann, *D*	San Francisco, 3004 Sacramento
42-John LaBlanc, *R*	San Francisco..1721 Devisadero
43-Luther L Ewing, *R*	San Francisco..1601 Turk
44-Richard Cohen, *D*	San Francisco..103 Ridley
45-William A Brown, *R*	San Francisco..2306 Mission
46-Hugh Toner, *D*	San Francisco..608 Third
47-Thomas Mitchell, *D*	San Francisco, Cor Utah & Yolo
48-Joseph Winrow, *R*	San Francisco, Recorder's office
49-W Z Price, *R*	San Mateo..San Mateo
50-Jesse Cope, *D*	Santa Cruz..Santa Cruz
51-Hiram Bailey, *R*	Alameda..Livermore
52-John Ellsworth, *R*	Alameda..Alameda
53-M D Hyde, *R*	Alameda..Oakland
54-F M Cooley, *R*	Alameda..Oakland
55-W H Jordan, *R*	Alameda..Oakland
56-C O Alexander, *R*	Alameda..Oakland
57-D N Sherburne, *R*	Contra Costa..Danville
58-J D Young, *D*	San Joaquin..Stockton
59-J R Henry, *D*	San Joaquin..Linden
60-J C Brusie, *R*	Amador..Ione
61-F W McClenahan, *D*	Calaveras..Milton
62-Edward Smythe, *D*	Tuolumne..Sonora
63-I A Wilcox, *R*	Santa Clara..Santa Clara
64-C M Weber, *R*	Santa Clara..San Jose
65-Samuel Rucker, *D*	Santa Clara..San Jose
66-C C Wright, *D*	Stanislaus..Modesto
67-J W Bost, *D*	Merced, Mariposa..Merced
68-J H Matthews, *D*	San Benito..Hollister
69-Thomas Runson, *D*	Monterey..Gonzales
70-J P Vincent, *R*	Fresno..Fresno City
71-A B Butler, *R*	Tulare..Grangeville
72-A J Gould, *R*	Alpine, Mono, Inyo..Darwin
73-McD R Venable, *D*	San Luis Obispo..San L Obispo
74-Russell Heath, *D*	Santa Barbara..Carpenteria
75-J Marion Brooks, *D*	Kern, Ventura, S Buenaventura
76-J R Brierly, *R*	Los Angeles..Los Angeles
77-G W Knox, *R*	Los Angeles..Los Angeles
78-W H Spurgeon, *D*	Los Angeles..Santa Ana
79-Hiram M Barton, *D*	San Bernardino..S Bernardino
80-Nestor A Young, *R*	San Diego..Mesa Grande
Total Republican Assemblymen	41
Total Democratic Assemblymen	39

Majority Republican, 2.

Democratic majority on joint ballot..... 10



The Cottage in the Orchard.

[Written for the RURAL PRESS by NESTLING.]

In the heart of a peach orchard,
Laden with most luscious fruit,
Overgrown with but two vines,
Honeysuckle, bond of love,
And the reddest of red roses,
Stands a brown and low-roofed cottage,
Home of six most happy children.

Like a nest within the peach trees,
Like the birdies in the brown nests,
Safely sheltered from all care,
This vine-covered, low-roofed cottage,
Brown with age of many years;
Sheltered these six happy children,
Bound with ties affections weave.

Ere the children yet had ventured
On the wide world's restless tide,
Tried how strong might be their pinions,
Came a messenger from heaven,
Took the father by the hand,
Whispered, "Follow me, my loved one,
He who sent will guide your band."

Then the band within that cottage
Tasted Grief's most bitter cup,
Tasted, thinking, "We will trust Him,
He will not forsake His own."
In the chain affection-woven,
Now one link is sadly broken,
Never to be forged again.

As the vines upon that cottage
Honeysuckle, bond of love,
Roses, but where'er the roses,
There so surely is the thorn.
Of the two that left that brown nest,
For the one Love strews her roses,
For the other Grief spreads thorns.

Be what may their path of duty,
Bound by links affection's forged,
To that cottage in the orchard,
Nest of love and peace and joy.
And the Angel hovering o'er it
Sweetly whispers, "Peace, complain not,
Loved ones; follow me, I'll guide you Home."

Crow's Landing, Cal.

The Senator's Daughter.

[Written for the RURAL PRESS by SARAH CAMPBELL STANFORD.]

Perhaps my memory runs back further than most children's, for I certainly can remember when mamma was shut up in a chamber with my sick baby brother for weeks, while I was left to the tender mercies of Katie, only getting a kiss occasionally as mamma would meet me in the hall or some of the rooms as she passed through. I could not have been four years old when I overheard Katie say to the cook: "What a pity 'taint this one. Little fright! She could very well be spared, but the bonny boy, with his great black eyes! Ah, no! everything goes wrong in this world!"

I held a grudge against Katie; she had taught me to say I was Katie's little nuisance in the catalogue of pet names attached to me. When I repeated the list to some friends dining at our house, beginning with "Mamma's joy and papa's girl," they all laughed—papa the loudest—at "Katie's little nuisance." I knew Katie had betrayed me, and ever after I was on the watch for her long words, and "fright" was laid up against her.

After Alvar had recovered from the long, dangerous illness, and we were taken out together, it was often said of us: "What a contrast! What a pity Madge isn't the boy! Alvar would make a lovely little girl;" or, "That girl is a perfect image of her father; she ought to have been the boy." So I was made dissatisfied and jealous at a very early age. Jealous—just think of it—of the large, dark eyes, the silky, black hair, the refined, delicate beauty, so like our mother. Alvar was frail and delicate, while I was robust, as all children should be.

Our home was in a pretty inland town on what is known as the "Western Reserve," Ohio. Our father, the first lawyer of the place—brilliant, jovial and eloquent. Our mother, a sweet woman, with a clinging nature just fitted to adore her strong, joyous husband. I think, as I remember her then, she was the most beautiful woman I ever saw; but very soon trouble came upon her, and care and anxiety robbed her of much of her loveliness. As I grew older I knew that money was becoming scarce in our household. I knew, or might have known, if I hadn't been willfully blind, that mother was killing herself with the household drudgery. I knew, as articles of furniture wore out, they were not replaced by new ones, but makeshifts instead were resorted to. There were no more dinner parties nor lawn fetes at our house. Mother made her dresses over for me, and she [illegible]ed at home with no one to comfort her save dear Alvar, who can never feel the remorse I now feel. He did what he could; he saw and sympathized with her in her heart-sorrow, while I was careless of everything save my own amusement and pleasure.

I remember an old aunt of mother's—Aunt Statira—who used to visit us occasionally. She said one day to mother: "That girl's strong will will either make or ruin her. You will see, Margaret, she will either be a very good woman or a very bad one, and I fear 'twill be the latter."

What a temper I had! I can remember of biting the pillow with rage when banished to my room as a punishment. The first thing that seemed to have any effect upon my outbursts of temper was a story mother told me. She said: "Once a certain gentleman told his little son he would give him a piece of smooth board, and he wished, every time the boy lost his self-control, he would drive a tack into that smooth surface; and every time he was tempted to fly into a rage and restrained himself he could draw one out. At the expiration of a month the board was to be taken to the father for inspection. Well, the compact was made, the tacks accumulated rapidly at first; but at the end of the second week the boy had so gained the mastery of himself that when the month was up every tack was out. He was delighted and ran to his father for his approbation. 'Yes, my son,' said he; 'the tacks are gone, which is a great thing gained, but the marks are there where they have been; and so it is with your anger—it has left scars on your character that time alone can wipe out, and perhaps you can never entirely efface them.'"

That little story helped me a great deal. From that time I truly believe I tried to be a better girl.

But father still remained out late nights, and in his frequent attacks of sick headaches poor mother hung over him like a pitying angel. Still I was ignorant of the sword hanging over our household, threatening to cut the bonds of affection and duty asunder. But my eyes were opened in a cruel manner.

One afternoon, after school, I went home with Jessie Stanhope, to practice our duet. How well I remember that evening, the last of my innocent careless happiness! The Stanhopes were the first people in town. Everything was real, from their solid silver to their elegant manners. So far as I could ever see, there wasn't a sham about them. Jessie, the youngest of a large family, was the pet and darling of the house—every desire was gratified; but with it all, she was the dearest, sweetest child in the world. She was some months younger than I; but of all my friends I loved her best. After practicing until we were tired, she took me to a room in the garret, which had been fitted up as a studio for her brother-in-law, an artist of some renown, who, with his family, was making a long visit to this hospitable mansion, and who was at work on a model in clay on that particular day. After a low rap, she ushered me into the "den," as it was called. I stood face to face with the debonair gentleman. A black velvet cap sat jauntily on the blond, flowing hair. He was my ideal of an artist.

"I have brought you a model for the hand and arm you were wishing for last evening, Sherry," said Jessie, at the same time raising my arm and pushing back the loose sleeve.

Before I could realize it, I found myself, with my sleeve rolled up, passing before this elegant stranger. My one point of beauty, my only inheritance from my beautiful mother, was made much of, and for the first time in my life I was lifted up in pride of self. Jessie and he ran on, in a merry conversation, until the dressing-bell sounded, just as a dash of rain on the window-pane, and a long, low rumble of thunder proclaimed the coming of a storm. I sprang to my feet to hasten home; but they remonstrated and persuaded me to spend the night. Jessie proposed that we dress in costume for private theatricals for the evening's amusement.

After dispatching a servant to acquaint mother with the plan, we ran to Jessie's dressing-room, and I was put under the deft fingers of her maid, who brushed and braided my rough mane into something like smoothness; while Jessie brought in piles of old-fashioned party dresses that her mother and sisters had discarded, and which were kept for charades, masques, etc. She selected for me a creamy white crape, cut with a train. Jessie fastened a necklace of amethyst about my throat, with bracelets to match. She chose a pink satin with white lace and pearl ornaments. Her golden hair hung in curls below her waist, and her large, dark eyes shone like stars in the anticipation of the evening's enjoyment.

When we appeared in the parlor, but five minutes before the dinner-bell rang, I was introduced to the married daughter; the other members of the family I knew. The massive silver, the waiters at our backs, and the removal of the cloth for dessert, all rendered me a trifle nervous; but the simple, quiet manners of this delightful family set me at my ease to such an extent that I neither upset my plate nor drank out of the finger-bowls. Dear mother, with all her burdens, had carefully trained us in table etiquette, and I was able to endure the ordeal.

After a number of tableaux and scenes, Jessie importuned her father to teach us the old-fashioned dance, the minuet. After he and Mr. Wellington (the artist) had donned the continental costume, we were initiated into that delightful, stately dance. (Why has it been discarded? I am sure every one would look with favor upon that dignified, courteous amusement, in such contrast to the whirling, giddy waltz, which mother said is justly called the "dance of death.")

I rose early the next morning to run home and study my algebra lesson, as was my custom. I stole out of the house, down the deserted streets. As I was passing a gambling and drinking saloon, my own father came down the steps with a bewildered, vacant look on his face, and reeled and tottered from one side of the pavement to the other. I hurried home a back way, and burst in upon mother, who was in the kitchen. "Mother, father is coming home drunk," and then I cried, and moaned, and wrung my hands, and wished all the dreadful things that young girls are apt to wish when trouble first approaches them.

Poor mother had two sick ones on her list that day, and she waited upon and petted us all the long hours, when she should have been in bed herself. From that time her strength seemed to fail her.

I could not bear to meet father for days—that noble man, whom I had thought almost perfection, reeling in the streets! I felt I never could hold up my head again.

Soon after, before the shock had lost its dreadfulness, the women began that wonderful movement called the "crusade." They held prayer-meetings nearly all the time; they even went to the saloons and prayed God to strike conviction to the hearts of these men, and induce them to give up their dreadful business.

One day, as Hattie Hill and I were going home from school, we passed a church where some ladies were holding a meeting. She proposed that we go in, "just for fun," and in we went. The hymns or prayers, my own state of mind, or something, urged me on, until I was on my feet talking to that large assemblage of ladies. I was in such a state of excitement, I can remember nothing that was said or done until it was over, and mother had her arms about me, with my head on her shoulder, while she soothed me just as she did when I was a little girl. Other friends gathered around, and I heard Mrs. Smith say: "Dear child, she has her father's talent, sure enough."

"Yes," said Mrs. Pryne, "her eyes looked just as his did the day he addressed the jury on the Jack Winters trial."

And I buried my flushed and tear-stained face deeper in mother's neck, and sniffed and snuffed myself into comparative quiet.

That night, after I had gone to my room, mother came in, and told me how proud she was of me, and asked me if I was willing to consecrate any and all talents I might possess to the cause that was uppermost in our minds.

"Dear Madge," she said, "I cannot stay long with you, and I leave a heavy burden for you to bear—I believe you can save your father yet; and there is Alvar—he has his college life before him. Will the time ever come when a woman can feel safe with her loved ones out of her sight? Society helps me to shield you, my daughter; but there is nothing but temptation for a boy, and the higher he stands the surer the fall."

"But, mother, don't you think God will stop this sin, now all these good ladies are asking Him to?"

"Many of these good women have been praying for long years in secret before they dared to take this public step. Dear child, remember that God's attitude is right toward this iniquity as it is toward all sin; it is our minds that need changing, and perhaps this uprising of the women of this State is God's answer to my own and the prayers of many others for long years."

"But don't you think, mother, the saloons are going to be closed? We read every day of some in different places closing. Won't they here, too?"

"Very few, if any, will remain closed, but I do think perhaps a clearer vision is given me now the veil is so nearly lifted. I seem to see something grow out of this movement that will accomplish the blessed work; and you, my child, will live in this grand time. You have felt the divine enthusiasm to-day; you, I believe, have a great work to do. Oh, yes; the women who have felt this pentecostal fire can never, never be content with the frivolities of life again. The signet of their Father's power is resting on their brows, and they will in their woman's faith and enthusiasm by the grace of God do this work."

I gave her my pledge that I would do everything in my power to stay this evil. Within a month after I graduated from the High School, and in the midst of my preparing for Vassar, my mother died. Alvar had gone up the lakes on an excursion. Oh, how she yearned for him! And the last words she uttered were, "Alvar! Alvar! Alvar!" as if her soul could not take its flight and leave him in this cruel, sinful world.

Father was terribly shaken at her death, and I resolved to pit myself against the saloons. Ah! perhaps if I had not been so ignorant of the strong desire of habit I would not have had the courage. Oh! my trials, they make me sigh yet. I knew nothing of housekeeping, and my ignorance seemed a target for the servant, who came and went in an unending procession. Then all the every-day duties—the marketing, the washing and mending—how tired and discouraged I often got! But strength was always given me to keep a smiling front to father, whom I daily accompanied to the office. Alvar came home and continued his preparation for college. Father did so well that I thought the conquest would be easy; but one evening I noticed an uneasiness in his manner at the tea-table, and I caught the whiff of wine on his breath as he walked with me into the parlor. Then I knew that my powers would be taxed to the utmost. I played and sang, read, talked and laughed as I never did before. At last I proposed a game of chess. Oh, how tedious the hours seemed as we hung over that chessboard, for I believe the average woman was never intended to play chess! But I persevered and to-day am a fair player.

When, at last, bedtime came, and we separated for the night, I saw in his eyes that he intended to steal out, after the house was quiet.

I went to my room, put on a warm wrapper, took two blankets, and lay down on the mat at my father's chamber door. The last waking thought was, perhaps Aunt Statira would think my strong will was good for something, after all.

I meant to keep awake, but I was a healthy girl, accustomed to sound sleep, and the first I knew somebody had stumbled over me in the dark. I immediately knew what it was, sprang to my feet, grasped father by the shoulders and pushed him back into his room. He was startled, of course, and before he recovered himself I had the door locked and the key in my pocket. For the first time in my life I rejoiced that I was large and strong.

I can hardly speak of the horrible night that followed. It was not my father who raged and stamped; he had the fumes of one glass of wine in his brain, and it made him a demon. He caught me and attempted to obtain possession of the key; but I took it from my pocket and threw it through the glass window into the garden below.

[TO BE CONTINUED.]

"I am the Resurrection and the Life."

In Memoriam. (M. F. R.)

[Written for the RURAL PRESS by CHAS. P. NETTLETON.]

Grief-smitten soul, love calls to thee
Through all thy strife—
"I am the resurrection
And the life."

His word proclaims these humble frames
Turn into dust;
Trust and know this—to endless bliss
God bears souls just.

May man then mourn those death has shorn
Of earth's keen pain?
Loved ones may go, but, weeper, know
Pure bliss they gain.

Thou wouldst not bring again earth's sting
To the beloved;
Let then grief cease at God's release—
His love He proved.

Hayward's.

What a Cigar Stump Can Do.

EDITORS PRESS:—I have been wondering of late if it is, after all, good to live in single-blessedness, and I conclude once more that it is. For the novelty of having somebody in my house with me, I rented my spare room to a couple of young men a week ago. All went well with us until yesterday, when I solved a mystery that had puzzled me since the day of their arrival. A musty and most disgusting smell clung to their room. I kept both their windows open night and day, without either notice or protest on their part. I feared they would leave me, but they didn't even complain. I felt truly grateful to them for tolerating so much with such unswerving patience. Surely mine were model roomers. As for their cleanliness, their general appearance and four dirty towels daily on their towel-rack bore evidence to that.

One of them comes and goes with an occasional bow or how-d'ye-do to me. The other is a trifle less shy; and, though their professions are of an humble kind, I hear him regularly at 9 A. M. brushing up, preparatory to bidding me a polite good-morning as he passes through my sitting-room in a Prince Albert coat and looking as neat as a pin. Could any one dare suspect them of anything foul?

Yesterday I could bear it no longer. An army of a dozen skunks, I knew, would have beaten a hasty retreat from the room; nothing could counterbalance such an odor. It followed me and pervaded my own quarter, threatening me with eviction. My lady friend called for a few days' visit. I was filled with a mingled feeling of pleasure and pain at her coming. I was suffering for want of sympathy, yet dared not ask it under such condemning circumstances. My friend kissed me at the door, entered, laid off her hat, sat down, and was about to enter upon a rehearsal of some amusing accident encountered on the way, when she changed countenance and looked around the walls suspiciously, then with a plea of feeling faint, stepped to the door for air. I could keep my secret no longer. I unbosomed myself at once. She was, as ever, sympathetic. Who but would sympathize with one under such circumstances? "It is too bad," she said, following me to the dreaded apartment, "that the sun never gets in this room." I assured her the sun had nothing to do with the trouble, as the room had been free of it the past 14 years, yet it had never smelled unpleasantly before. Then she cautiously suggested rats—dead rats in the walls. The mystery was solved. At least we thought it was, until in our investigation we knocked a couple of cigar stumps from

the casing behind the window curtain. We each picked up one and smelled it. That settled it. If my roomers had entered just then they would have learned that cramming can be done outside of schools. We should have crammed our "find" down their throats, even at a peril to their immaculate shirt bosoms. Were they forewarned? They didn't return until 1 o'clock this morning. We heard them pass through to their room, but they were then safe. We had eaten nicotine in our supper; we were breathing it from our sheets. Indeed, we were too much stupefied by the ubiquitous poison to arise and execute our sentence.

Santa Barbara, Cal. DAGMAR MARIAGER.

Blank Votes.

A Great Practical Lesson.

Three years ago a convention of delegates met in one of our large cities to nominate a candidate for mayor. Other considerations than the ordinary political ones were involved. One man who was pushed for the office represented the corrupt ring of the city, the bosses who lived in luxury on the taxes levied on the mass of hard-working citizens. The other was the candidate of the honest, reputable part of the community, who hoped through him to correct the abuses from which it suffered.

The excitement was intense during the meeting. When the time arrived to poll the votes, every man knew that he was called on to choose not only between a rogue and an honest man, but between a system of roguery and a system of honesty. The rings, too, were powerful, and could seriously injure the business of any one who opposed them.

When the ballots were counted, the two candidates were found to have an equal number of votes, and one ballot, which might have decided the contest, was blank. Without voting again, the meeting adjourned.

A few weeks later, two members of the caucus were discussing the affair.

"To be candid," said one, "I could not vote for that scoundrel Bright, and I was afraid to compromise myself with the bosses by voting for Wynne; so I put in a blank slip of paper! Just did nothing—see? Saved my credit and did no harm."

"Just this harm," said the other, gravely. "With your vote Wynne would have been nominated. Without it there was a tie. A second meeting was called. You stayed at home and did nothing. Bright was chosen, and the city remains in the power of the bosses."

The great mass of boys in a school, or men in the world, herd together to "keep safe." They are afraid to take a decided stand for the right, hence their accumulated dead weight is thrown against it. The man who is civilly tolerant of corrupt officials, and of drunkenness and impurity in his associates, and the woman who follows vulgar and immodest customs, because they "do not like to make a fuss," throw blank votes in life. The doom of the man who, from laziness or weakness, refrained from doing right, was the same as his who was active in doing evil. Each of us on entering life has a blank record to fill for good or evil. Shall we spend our years in trying to do nothing, to leave it blank?—*Youth's Companion.*

BEGIN WHERE YOU ARE.—The man who has really resolved to live the best life that he can must begin right where he is—begin where his failures, his false education, his errors and his sins, have left him. By no single stroke of the pen can we erase whole pages in the history of our lives. We have made or unmade ourselves as we are. If we could only begin at some lofty hight which our moral dreams picture for us, it seems to us that there would be inspiration in going still further. But we cannot substitute in a moment the dream of life for the real one. We are surrounded on every side by hard and tangible realities. We must begin where we are. One who takes a practical and sagacious view of what is possible to him in life will not burden himself by attempting the unattainable. He will begin when and where he is, and do that which lies in his power. Each day of life brings its own task; each task accepted, each opportunity fulfilled, may be a step toward a higher life. Jacob's old dream was not an unreasonable one. His angels did not fly to heaven; they went patiently up each round of the ladder, and they began at the bottom.—*Christian Register.*

INDIAN FEAST.—About 200 Indians met at Camp Independence the Monday after Christmas to hold a feast. The week before, hunting parties had been out in the valley and among the mountains and a large amount of game had been secured, all of which was taken to the "big eat." Several noted Indian dancers were present, and the first dance came off on Monday night; this was the "war dance," and only two warriors performed. They were elaborately dressed, part of their costume being feathers stuck upon their noses. After the grand ceremonial performance the dancing became general, men and women taking part. The music is a low "crooning" kept up by the whole company. The festival lasted all week, with dancing every evening.—*Inyo Independent.*

THERE is said to be a blind boy in Brooklyn who takes dictation on a type-writer faster than any known expert possessed of good eyesight.

YOUNG FOLKS' COLUMN.

The Angel and the Flowers.

An angel once asked the Father if he might leave heaven for a day and go down to earth to visit the flowers and birds and little children, for you must know that no other earthly things please the angels of heaven as do the flowers, the birds and the little children.

"Yes," said the Father, "you may go down to earth, but be sure to stay no longer than a day; and when you come back to heaven bring me the loveliest flower that you can find, that I may transplant it in my garden and love it for its beauty and fragrance. Cherish it tenderly that no harm may befall it."

Then the angel went down to the earth, and he came to a beautiful rosebush, upon which bloomed a rose lovelier and more fragrant than any of her kind.

"Heyday, sweet rose," said the angel, "how proudly you hold up your fair head for the winds to kiss."

"Ay, that I do," replied the rose, blushing, albeit she enjoyed the flattery. "But I do not care for these idle zephyrs nor for the wanton sunbeams that dance among the leaves all the day long. To-night a cavalier will come hither and tear me from this awkward bush with all its thorns, and kiss me with impassioned lips, and bear me to his lady, who, too, will kiss me and wear me on her bosom, next to her heart. That, O angel, is the glory of the rose, to be a bearer of kisses from lover to lover, and to hear the whispered vows of the cavalier and his lady, to feel the beating of an impassioned heart, and to wither on the white bosom of a wooed maiden."

Then the angel came to a lily that rose fair and majestic from its waxen leaves and bowed gracefully to each passing breeze.

"Why are you so pale and sad, dear lily?" asked the angel.

"My love is the north wind," said the lily, "and I look for him and mourn because he does not come. And when he comes and I would smile under his caresses, he is cold and harsh and cruel to me, and I wither and die for a season; and when I am wooed back to life again by the smiles and tears of heaven, which are sunlight and the dew, lo! he is gone."

The angel smiled sadly to hear of the trusting, virgin fidelity of the lily.

"Tell me," asked the lily, "will the north wind come to-day?"

"No," said the angel, "nor for many months yet, since it is early summer now."

But the lonely lily did not believe the angel's words. Still looking for a cruel lover, she held her pale face aloft and questioned each zephyr that hurried by. And the angel went his way.

And the angel came next to a daisy that thrived in a meadow where the cattle were grazing and the lambs were frisking.

"Nay, do not pluck me," cried the daisy, merrily; "I would not exchange my home in this smiling pasture for a place upon the princess's bosom."

"You seem very blithesome, little daisy," quoth the angel.

"So I am, and why should I not be?" rejoined the daisy. "The dews bathe me with their kisses, and the stars wink merrily at me all the night long, and during the day the bees come and sing their songs to me, and the big cattle caress me gently with their rough tongues, and all seem to say, 'Bloom on, little daisy, for we love you.' So we frolic here on the meadow all the time—the lambs, the bees, the cattle, the stars and I—and we are very, very happy."

Next the angel came to a camellia which was most beautiful to look upon. But the camellia made no reply to the angel's salutation, for the camellia, having no fragrance, is dumb—for flowers, you must know, speak by means of their perfumes. The camellia, therefore, could say no word to the angel, so the angel walked on in silent sadness.

"Look at me, good angel," cried the honeysuckle; "see how adventuresome I am. At the top of this trellis dwells a lady-bird, and in her cozy nest are three daughters, the youngest of which I go to woo. I carry sweetmeats with me to tempt the pretty dear; do you think she will love me?"

The angel laughed at the honeysuckle's quaint conceit, but made no reply, for yonder he saw a purple aster he fain would question.

"Are you then so busy," asked the angel, "that you turn your head away from every other thing and look always into the sky?"

"Do not interrupt me," murmured the purple aster. "I love the great luminous sun, and whither he rolls in the blazing heavens I turn my face in awe and veneration. I would be the bride of the sun, but he does not heed my devotion and beauty!"

So the angel wandered among the flowers all the day long and conversed with them. And toward evening he came to a little grave which was freshly made.

"Do not tread upon us," said the violets. "Let us cluster here over this sacred mound and sing our lullabies."

"To whom do you sing, little flowers?" asked the angel.

"We sing to the child that lies sleeping beneath us," replied the violets. "All through the seasons, even under the snows of winter, we nestle close to this mound and sing to the sleeping child. None but he hears us, and his soul is lulled by our gentle music."

"But do you not often long for other occupation, for loftier service?" inquired the angel.

"Nay," said the violets, "we are content, for we love to sing to the little sleeping child."

The angel was touched by the sweet humility of these modest flowers. He wept, and his tears fell upon the grave, and the flowers drank up the angel tears and sang more sweetly than before, but so softly that only the sleeping child heard them.

And when the angel flew back to heaven, he cherished a violet in his bosom.

GOOD HEALTH.

Typhoid Fever.

Symptoms by Which the Disease May Be Recognized.

When a person becomes ill, suffering with slight chills, loss of appetite, frequent nose bleeding, irregularity of the bowels, coated tongue, rapid, weak pulse, a body temperature rising about one degree daily until 105 degrees Fahrenheit is reached, with fugitive pains, especially in the back and head, with progressive muscular and mental weakness, and an inclination to be stupid, the presumption is very strong that the patient has typhoid fever, and this notion is much strengthened if, with the above symptoms, there be a tumid abdomen, gurgling on pressure on the right side.

These symptoms may exist about 14 days, and gradually abate, and the patient recover, but the patient may, on the other hand, go on from bad to worse, and finally be destroyed by exhaustion, perforation of the bowels, or bowel hemorrhage. If on examination of the body of one dead under the above circumstances there be found numerous patches of inflamed surface in the bowel known as "ileum," it is perfectly proper to ascribe the death to typhoid fever. The poison of the disease, which is probably a microscopic plant, exists mainly in the bowel evacuations of those sick of the disease. It is true that this substance has never been isolated and shown to men as one would show a sample of wheat or other seed, but it exists all the same, and when a person develops the disease it is because he has swallowed some of the poison with his drink, most likely, and it passes along the alimentary canal till it finds a good soil in which to grow—that is, in the position indicated, known as "Pyers' patches," a glandular formation bearing the name of a learned physician long since dead. It is probable that some in vigorous health might take small amounts of this poison into the system and escape unhurt. A temperature of 412 degrees—that is the boiling point—kills the poison of all zymotic diseases. Here is the sum of the prevention of the trouble: Maintain a high state of the general health and boil all suspected water before using. In fact it is well to use nothing but boiled water when any epidemic disease prevails. Some typhoid fever patients will recover by rest in bed, and using only liquid food. Others will die in spite of the best of attention. These last are either constitutionally weak or received enormous doses of the poison. Enteric fever is the better name for the trouble in question.—*Medical Journal.*

WHERE TO DIG THE WELL.—Let us remember that a well will drain an area with a diameter equal to twice its depth. Therefore, a well 12 feet deep will drain an area the diameter of which is 24 feet, that is to say, that it will drain the surrounding soil for 12 feet in every direction. Obviously then the privy should be more than the depth of the well away from it, and more than this again if it is proposed to place it on a higher level, which, however, should never be done. The well should be lined inside thoroughly with mortar so that percolation cannot occur between the crevices of the bricks, and it should be well covered, so that surface drainage cannot get into it, for you want to drink water that has come into the well from the bottom, after it has been purified by filteration though the earth. Thus, then, these are the precautions to be observed in locating and building your well in the country. How about the city? Well-water in the city should never be used; the sources of contamination are too numerous and too hidden to be avoided.—*Annals of Hygiene.*

EFFECT OF PERFUME.—We learn that an Italian professor has recently made some very agreeable medicinal researches, resulting in the discovery that vegetable perfumes exercise a positively healthful influence on the atmosphere, converting its oxygen into ozone, and thus increasing its oxidizing influence. The essences found to develop the largest quantity of ozone are those of cherry, laurel, clover, lavender, mint, juniper, lemon, fennel and bergamot; those that give it in smaller quantity are anise, nutmeg and thyme. The flowers of the narcissus, hyacinth, mignonette, heliotrope and lily of the valley develop ozone in closed vessels. Flowers destitute of perfume do not develop it, and those which have but slight perfume develop it in small quantities. Reasoning from these facts, the professor reccommends the cultivation of flowers in marshy districts, and all places infested with animal emanations, on account of the powerful oxidizing influence of ozone.

DOMESTIC ECONOMY.

Hints for Resting and Working.

[Written for the RURAL PRESS by MRS. J. HILTON.]

Isn't it delightful and refreshing when one goes to the house of an acquaintance exhausted bodily, as one has to sometimes, to have her say: "Now do lie down and get rested. I will see to the child, and I know after you have some refreshment you will feel better." Yielding to the gentle persuasion, I lie down for 15 or 20 minutes, and arise feeling like a new woman.

The first time I ever lay down in an acquaintance's house in the daytime was quite an event to me. I had been used to all kinds of kind treatment, but that surpassed them all. I had taken dinner with my friend, and as she did her own work, I assisted her in washing the dishes and sweeping, and that and my walk had made me really unfit to do anything else but lie down and rest. I was, however, heroically trying to conquer my exhausted frame and be sociable, when I was invited to go upstairs, and when there my friend said: "Now let us lie down and rest half an hour, and then we can talk again." So giving me a paper to amuse myself with, she left me to my own devices, although she was in the same room. Of course I enjoyed my day's visit immensely, and have tried to pass on the good idea. Dear sister friends, try it the next time you have a friend come to stay all day and see how much happier you both will be than you would if you worried through the whole day trying to entertain by constant talking.

I am supposing that the sisters take a half hour's rest after dinner, as every one should do when she does her own work, and if any among you do not do it, commence immediately. It can be done if you set yourselves about it. By such rest you can safely count on 10 years being added to your life, and instead of the supper-time and evening being a burden, they will be a pleasure.

And another thing: I want you all to try to arrange your sewing so that it will not have to be done at night. Keep that time for reading and recreation. It can be done in most cases if you only try. Be content with less work done on a garment. Why, I used to think an undergarment, especially, would not do at all unless a seam was felled down, but I was disabused of that idea by a friend, and I rarely go over a seam but once now. The gain in time is very much where one has much to do.

In another home where I have been lately, I also learned of several helps about our daily work, and I will mention part of them, as they may be of benefit to others. One is to varnish shelf papers. They keep clean longer and can be wiped off occasionally. For shelves near a stove, put on oilcloth; white I like best. It is much less trouble to wipe off with a wet cloth than to change papers.

Another thing is to use oil cans, five-gallon ones, with the tops cut off, just inside the edge, and the rough places hammered down. For boiling clothes in, instead of a boiler, they are excellent. Then the different grades of clothing can be kept apart and more clothes boiled at once. This economizes the time needed on wash days, for most stoves will accommodate four cans.

Another thing is to put all pieces of broken bread into the pancake dough. We have a can that we mix buckwheat or "shorts" batter in, and at supper-time we gather up all the clean crusts, broken pieces and crumbs and put them into the can and wet with cold water. Half an hour or so before bedtime we put in enough shorts to make up sufficient batter for the morning meal. About once a week or so we start with fresh yeast, leaving a little of the batter in the can each morning for the next rising. A teaspoonful of soda wet up with hot water stirred into the batter just before baking makes all sweet and nice. The bread crusts are an excellent addition to the flavor of pancakes, I think. One of my lady friends always puts in a small handful of sugar when she puts in the soda; it makes them very nice.

Los Alamos, Santa Barbara Co.

Soft Soap.

Will any reader of the RURAL, who has a good recipe for soft soap made with lye from wood-ashes, be kind enough to insert it in the paper for the benefit of

A CONSTANT READER?

SNOW PUDDING.—Pour on to three table spoonfuls of corn starch dissolved in a little cold water one pint of boiling water. Add the whites of three eggs beaten to a froth, pour into an earthen dish, and set in a steamer and steam 20 minutes.

GOLD CAKE.—The yolks of three eggs, a scant half-cup of butter, one cup of sugar, two cups of flour, one-half cup of milk, one teaspoonful each of saleratus and cream of tartar, or two teaspoonfuls of baking powder. Flavor with lemon.

BUTTER-SCOTCH.—A coffee-cup of brown sugar, half a cup of water, and a dessert spoonful of vinegar; a piece of butter the size of a hickory nut. Boil 20 minutes. Pour into buttered pans, and cut into narrow strips.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, January 8, 1887.

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The Week.

The delightful weather has returned, all too soon. The storm from which we hoped so much last week fell short of our expectations and made but a small contribution to the rain record. Apprehension is, of course, felt for the character of the season, but there is yet time for it to retrieve itself. One only has to remember several recent years where the rain has held aloof till late in January, and still has been abundant afterward. We await similar experience this year.

The Legislature is in session and the brand-new corps of State officers are in their places in the State Capitol. There are many important and interesting matters pending, and all should watch the course of legislation and not hesitate to aid their representatives with full expression of their views and wishes on important questions. Our columns are open for discussions on legislation as related to agricultural and general industrial interests and the public welfare. So far as our acquaintance goes, the Legislature has good men in it, and we shall expect them to act wisely.

Self-Murder and Society.

The frequency with which men and women, and even children, resort to suicide as a means of escaping real or imaginary evils, is a subject of almost daily comment. Scarcely a paper issues that does not chronicle a fresh case of self-murder. From what cause springs this alarming tendency to self-destruction? Our social philosophers, insurance men and fraternal men are toiling at the problem. When it is proved before a coroner's jury that the suicide had domestic trouble, or reverse of fortune, or was intemperate or in poor health, or had been disappointed in love or ambition, all inquiry ceases. But a good theory is one that seeks to group all the infinitely various determining motives in the unity of one primal law. Can such a law be discovered? In what direction shall it be sought? The great Italian alienist, Henry Morselli, in his elaborate essay on suicide, says: "The motives which impel the suicide to quit life are not beyond social laws; indeed, man would never have destroyed himself if he had lived far from other men, and had not shared in the misery of his fellow-creatures. The more humanity advances, the more it tends to the common association of forces; therefore, the savage appears to be freer in his virgin forest than the civilized man in his splendid cities." Here is foreshadowed, perhaps, the direction in which the final solution may yet be found.

In the mean time it is evident that the organizations of capital and labor have robbed both rich and poor of their individuality and made all men mere parts of a machine. Before the era of railroads and steamboats and telegraphs every shoemaker, tailor or blacksmith had his own shop, but now these and all other forms of artisanship are merely parts of a machine, and this machine usually takes the form of corporate control. Even the men who manage the machine are parts of the mechanism. Life is reduced to a time-table. We eat and run to work by the ring of a bell or the shriek of a steam whistle. In short, nearly everything pertaining to existence in these days is so nicely adjusted that life has become a treadmill monotony, and perhaps it is not too much to say that nine out of ten who commit suicide are impelled to it by the dull and joyless barrenness of their lot.

Then, no doubt, many men and women commit suicide in these days not because they have loved and lost, but because they are unable to find anything to love. How many men and women can say that they have one true, tried and devoted friend? We once knew a man who advised all his acquaintances when they were in trouble to go and tell their wants and grievances to the wooden Indian that stands before the cigar store. He believed that half the world would agree with him that the advice was good. It is at least certain that one reason of the frequency of suicide is the fact that everything is so arbitrarily and nicely adjusted that there is no time nor room for friendships. Whatever may be the immediate cause, we may be certain that life to the unfortunate has become void and barren of hope. Men of the church, men of our fraternal Orders, think of this! You may help to remedy this evil in some degree. It is obvious that the only cure is in the nature of a preventive; in whatever more evenly distributes the burdens of life and helps to make the world more bright, joyous and beautiful.

The Experiment Station Bill.

The December meeting of the State Horticultural Society fell on the day before the New Year's holiday, and the attendance was small. Certain matters of business were announced, but as they will come formally before the January meeting and be acted upon then, we defer the report until that time. For the January meeting it was decided to discuss orchard pests and best materials and methods in spraying. State Inspector Klee has agreed to address the meeting on that subject and give the results of his latest researches. The meeting will be held at Irving hall, Jan. 28th, and all interested in insect fighting are invited to be present.

One item of business transacted at the December meeting which is of general interest was the passage of resolutions approving the congressional bill to provide for experiment station work. This measure is now before Congress, and will pass if those who approve it will notify their representatives at Washington of the fact and ask them to advance the measure. There seems to be no opposition, and it is only necessary to show the popular demand, to take up the bill out of its order and make it a law. All who have friends in Congress, whether representing their district or not, will do well to address them upon the subject, and all petitions or resolutions adopted by the Granges or other agricultural organizations should be forwarded to Washington without delay. The following action was taken by the State Horticultural Society at its last meeting:

WHEREAS, It is understood by this society that the Hatch bill, which provides for the establishment and endowment of experimental stations in connection with the several agricultural colleges, has been favorably reported upon by committees of both Houses of Congress, but is in danger of not being reached at the present session, unless taken up out of its regular order; and

Whereas, This measure is of exceptional interest to California, on account of the great variety of soils and climates existing within the State, which daily bring our farmers face to face with untried industries and problems, requiring systematic and scientific investigation for their prompt solution, in the interest of industrial progress;

Therefore, Appreciating the great practical importance of the proposed measure, we earnestly request our senators and representatives in Congress to use every effort to speedily bring the bill before that body and to secure its passage.

Ramie and Jute.

Last week we alluded to the possibility of profit in growing flax fiber in this State for the twine-makers, even if there should be no immediate prospect of the higher use of the fiber in linen manufactures. In the University distribution described in last week's RURAL, ramie plants are offered to those desiring a few for experiment. This fact, coupled with the interest which is now active in this city in ramie-fiber extracting machines and in the propagation of ramie plants for commercial planting, lead us to believe that a considerable planting of ramie and possibly a considerable investment in extracting machinery are to be features of our immediate industrial future. The people are ready for such an activity, and the number of people who are inquiring of us about ramie as a crop and the chances for profit in it, is large. To such we say:

1. There is no question about the satisfactory growth of ramie over a considerable area of the State, and there is prospect of success, in varying degrees, under a wide range of conditions in soil and moisture.

2. We cannot speak authoritatively of the success of the several extracting machines and processes which are now receiving considerable attention. We have seen fiber extracted by some of them and it is excellent, and so far as we can judge, it is in the form which will suit the foreign manufacturers who at present are its purchasers. We have the authority of several parties who have examined the machine which is now most talked of in this city, that it is satisfactory, and we have seen similar assurance in print concerning machines which are being used experimentally in the South and East.

3. Granted that one or all of the machines now being shown the public, here and elsewhere, are successful, there is something more needed to assure the prospective ramie-planter that he can safely purchase and set out the plants. Before people can be advised to plant ramie on a commercial scale, it seems to us some of these machines must come into the hands of those who are prepared with capital and skill to work the crop when grown, and to pay for it. The ordinary farmer cannot give up land and time and purchase plants for a ramie crop, merely on the expert assurance that any machine is a success. He must know whether, when he makes his cutting of stalks, he can get his money for them. He cannot afford to grow the plants, purchase the machines, experiment with the extraction, and stand the chances of some future return when the ramie fiber finds a market on the other side of the globe. It is necessary, then, before one can be advised to go into ramie, on something more than an experimental plantation, that capitalists should take the matter up, prove the machines, ascertain what it will cost them to extract the fiber, what they can get for it when it is in proper shape, and then what, after securing for themselves reward for their enterprise and investment, they can afford to pay the ramie-grower for his raw material. We understand that something of this kind is now contemplated or is really under way—we are not sure which. If it is as yet only projected, we can advise capitalists that the subject is worthy their attention. There is much unproductive money lying in this city. It should be employed in some industrial effort. Let its owners, then, look into this matter and take whatever wise risks may be necessary, with the purpose and in the hope of building up a new industry, which will be of great value to the State, if successful.

We notice there are at present several centers of disturbance on the fiber-industry question in this country. There has been most heat in the matter in New Orleans, and possibly San Francisco comes next. We believe that in New Orleans there are two machines contending for public favor, and the reason the interest cropped out there is because of the exhibition of these machines at the World's Fair and because ramie and jute, the plants which it is thought will be most profitably handled, are well adapted to that region of country. We see by the local papers that great efforts are being made to organize companies with capital enough to purchase machine rights and embark in the extraction business. One company whose prospectus we have seen proposes to buy the control of one machine, and having it vested in New Orleans, to secure for that city preeminence in the extraction of fiber and ultimately in the manufacture of fabrics. We have no objection to the capitalists of New Orleans buying the control of a machine if they want to, and we hope, if they buy it, they will make money out of it and build up a great growing and manufacturing industry. It seems to us, however, very improbable that they can by the purchase of any one machine control fiber extraction. We have confidence enough in California inventors to be assured that they will do as much as any other inventors in the world can do. It will be interesting, however, because of the free talk about textiles in California, to mention a few of the statements made in the articles in New Orleans papers, which are designed to extend the interest among their capitalists in this undertaking. We quote as follows from the New Orleans *German Gazette*:

Two years' experience has proved that jute and ramie can be successfully and profitably cultivated all over the Southern States as far north as the 32° of northern latitude, the average yield being from 10 to 30 tons of green jute, and from 6 to 10 tons of green ramie stalks. Well cultivated land will reach the last figures.

The parties embarking in the enterprise have calculated that they will be able to pay producers $4 a ton for green, leafless jute, and $5 a ton for green, leafless ramie stalks, thus insuring the latter a safe and reasonable profit.

As far as the progress achieved in extending the cultivation of these staples is concerned, it is gratifying to note that there has been ordered jute seed, for Texas alone, to plant 2000 acres; for Louisiana, 900 acres, and for Alabama, 450 acres. About 250,000 ramie roots have also been ordered for different sections of the South.

Jute butts, defiberized by the Luft machine, are worth, in the market, $65 per ton; fine fibers, from $80 to $90 per ton; ramie, just from the machine and dried, $125; ungummed, $240 to $275; and bleached, from $500 to $600 per ton.

For fibers from fibrous plants, growing wild, in Texas, New Mexico, Arizona, California, and Florida, $60 to $180 per ton cash is paid in the New Orleans market. These wild plants only need to be cut and delivered—no cultivation is necessary.

In 1887 at least 3000 acres of jute will be cultivated, yielding an average of 15 tons per acre, for which $4 per ton would be paid to farmers, netting them $180,000.

Of jute there will be at least 250 acres planted, yielding, on an average, three cuttings, of 8 tons each, realizing $5 per ton, or $30,000.

The prospectus proceeds to show how the proposed corporation, after paying fiber-growers this $210,000 for raw material, could sell the extracted fiber for $396,000, which would certainly be a very good business. We know nothing about the accuracy of these figures; they come from those who seem anxious to float the stock of the proposed corporation, and must be received with that fact in view.

What we want now in this State, looking at the matter from the farmer's point of view, is that some responsible company assure us that they will pay $4 per ton for green jute stalks and $5 per ton for green ramie stalks, or any other stated figure for any other stated condition of crop, and then growers can take steps to determine whether they can furnish the goods profitably at the prices offered. The beet-growers in the lower part of Alameda county grow sugar beets in quantity, because the Standard Sugar Company is ready to pay a profitable price for them. We want some similar assurance for fiber crops. What will our capitalists do about it?

Food Adulteration and Congress.

A national convention is called to convene in Washington City, D. C., the 19th of this month, for the purpose of securing congressional legislation against food and drug adulteration. The evil is national in extent, and it is quite impossible to secure uniformity of action between the States, and the consequence is that if one State makes a stringent law, the people who live on the borders of a State that permits adulteration would be poorly protected. The benefit of congressional legislation would be that a law preventing the manufacture and sale of adulterated food and drugs would be uniform, at least so far as importation and interstate commerce in vitiated provisions is concerned. It is time something was done, and no uniform and vigorous remedy can be applied by isolated State action. The extent and variety of food and drug adulteration would seem incredible were it not that the facts have been officially ascertained. There is scarcely an article of food that can be bought with any assurance of purity and wholesomeness. Trade guarantees are worth nothing. If manufacturers and dealers have no more principle than to persist in silently, under the cover of the mysteries of their business, to adulterate and poison provisions, drugs and delicacies, there is but one redress left, and that is summarily to break up the whole business, by stringent legislation. A good beginning was made against fraudulent butter in the shape of oleomargarine; let the good work go on till the market is thoroughly purged of this class of frauds.

The protection of the life, health, property and happiness of the people is the primary aim of government. It should stand as a wall of fire between them and all invasions from without or violence within; from open assault or covert danger. It is for this protection the people pay their taxes and give their personal valor in time of war. Where does this protective function of the Government cease? Has it done all that should be expected when it hurls back the invader, subjugates treason, puts a stop to smuggling and counterfeiting, punishes murderers, burglars and incendiaries? By no means. It should punish the adulterators of meat and drink as rigorously as robbers and murderers. They are worse than the average murderer who kills in a heat of passion, for they kill off thousands of innocent people by the slow processes and homeopathic doses of dirt, nastiness and poison, from the sheer lust of gain. The Borgias and others of that accursed race were actually less culpable. They killed units, while the modern vender of deleterious compounds insidiously assails the health of a whole community and shortens the average duration of human life. Better a thousand times an occasional dose of poison by a Madame Brinvilliers than vile, unwholesome admixtures in our sugar, syrup, coffee, tea, pickles, canned fruit, lard, butter, oil, curry, and a host of other articles in every-day use.

CATS FOR DOGS.—We find in an English exchange a novel suggestion for the supply of meat for what they call dog biscuits. Upward of 9,000,000 kittens are annually produced in England, the greater part of which are destroyed and buried, there being no means of utilizing their flesh at a profit. This being the case, the *Pall Mall Gazette* wants to know why they cannot take the place of the meat imported from New Zealand and South America for the 150 tons of dog biscuits which are weekly made in that country. If they use imported meat for dog feed in England, it might be easier to secure condensed California squirrel or Australian rabbit than to rear the millions of felines which it is convenient to put out of the way ere they see the light. There was an effort somewhere in the State to make a profit by canning California squirrel for European epicures, but it did not succeed. Perhaps a better strike could be made with pressed squirrel for dog feed.

NATIVE PERSIMMONS.—When we read about persimmons grown in this State, we usually take it that one of the Japanese varieties is referred to; but this inference appears to be not wholly safe, for the Visalia *Delta* speaks of Mr. Griggs receiving from Santa Rosa a box of persimmons raised by his father, J. H. Griggs, who has in his grounds two persimmon trees about 18 years old. J. H. Griggs' father brought the seed from old Virginia and planted it. For several years the young trees had a hard struggle for life, but by constant care, and transplanting a few years ago, they finally became thrifty and are now about 10 feet high and bear heavily each season. The fruit is excellent after it has been thoroughly frosted—equal to that grown in the "Old Dominion."

Statistics of Indian Wheat Shipment.

It may interest our wheat-growers to know that statistics show that something like desuetude is overtaking the shipments of Indian wheat—that is, that the annual progression in amounts which has alarmed wheat-growers has reached its culminating point and the advance has ceased. The following figures, which we take from H. Cains-Jackson's review in the London *Farmer* of latest-received date, are of interest, as showing not only the amounts shipped, but the season at which new-crop Indian wheat reaches the European markets, etc.



A DOUBLE CALLA FOUND IN A SAN FRANCISCO GARDEN.

Indian wheat shipments have been as follows:

January—March (old crop).	Qrs.
From Bombay	415,091
" Karachi	297,426
" Calcutta	24,568
Total	737,085
April—June (new crop).	Qrs.
From Bombay	1,309,746
" Karachi	123,480
" Calcutta	605,588
Total	2,038,814
July—September (new crop),	Qrs.
From Bombay	373,242
" Karachi	265,441
" Calcutta	589,698
Total	1,228,381
Total shipments for nine months in quarters:	
Bombay	2,098,079
Karachi	686,347
Calcutta	1,219,854
Total	4,004,280

Mr. Jackson finds encouragement in these figures for general wheat values. He says that they show that Bombay, after a period of extreme energy, has ceased to ship largely, and they also show that India, for the whole year, is not likely to materially surpass what was expected of her in the way of shipments. Four millions seems a big quantity, but the Continent has taken a considerable proportion, and that of 476,000 quarters of Indian wheat afloat December 1st, 134,000 quarters were destined for the Continent.

California Cork.

Some enterprising Americans have recently conceived the idea to grow cork trees in this country. They believe they can be successfully grown in the climate of California, and steps have been taken toward making the experiment.—*St. Louis Globe-Democrat.*

The growth of the cork oak in California is not a matter of experiment. Its success was demonstrated long ago. The distribution of cork acorns by the Patent Office about 25 years ago may not have accomplished much in other parts of the country, but it gave us a start, and there are now trees yielding cork and bearing acorns at a number of different places in the State. Some time ago we gave a picture of the tree growing on Mr. Richardson's place at San Gabriel, Los Angeles county. There were samples of cork and acorns shown at the Sacramento Citrus Fair by H. A. Messenger, of Calaveras county. There are trees of similar age in Sonoma, Santa Barbara and Tulare, and perhaps other counties which we do not now remember. The State University is growing seedlings from California cork acorns, and will be likely to have the trees for distribution next year. There is no doubt about the adaptation of the tree to the State, as the widely separated counties named above all furnish proper conditions for its growth. It is, of course, a crop which one has to wait some time to gather, and therefore needs patience in the planter.

The journal named above, and which mentions experiments as to be tried in California, gives some facts concerning the cork trade which will be read with interest in this State:

The average annual importation of corkwood into this country, entirely at the port of New York, is 70,000 bales a year. A bale weighs 160 pounds, and is worth on this side of the water $20, making a total value of the yearly importation of $1,400,000. It comes in duty free. It is nearly all brought over by one firm, which has a branch office in New York, the main offices being in London and Lisbon. The firm owns vast forests of corkwood in Portugal and Spain, and may be said to control the business. With the exception of an inferior kind of corkwood grown in Algiers to a limited extent, all the corkwood of commerce comes from the Spanish peninsula, where the trees abound not only in cultivated forests, but also grow wild on the mountains. The tree is like an American oak, with leaves similar to the oak and acorns. It takes 10 years for the bark to become of proper thickness to be manufactured into bottle-stoppers, life-preservers and seine corks. When stripped from the tree, it is boiled for two hours, cured in the sun for a week and pressed into flat pieces for baling and shipping. The denuded trunk, like a hen robbed of her eggs, does not sulk and quit the business, but throws out a fresh covering for a fresh spoliation. One tree has been known to yield a one-half ton of corkwood. One pound of cork can be manufactured into 144 champagne corks. The baled corkbark is sold to cork manufactories in the cities. The most extensive manufactory in America is at Pittsburg. Beside the ordinary demands for corkwood, a good supply of the buoyant material, after being burned to make it still lighter than the original bark, is shipped to Canada and New England, where it is made into seine corks.

Meat Values Abroad.

The Pacific Coast has always had an eye on the possibility of sharing in the production of meat for distant parts of the world where prices are high. It is interesting to notice that the large shipments of meat from the United States, and from South America and Australia, have steadily reduced values in England, much to the discomfort of the home producers. The London *Economist* calls attention to a somewhat curious fact in connection with the matter, pointing out how largely the fall there is in the inferior class of beef. In the London market on January 1st, in each year since 1881, the prices per eight-pound have stood thus, contrasted with the values now current:

	Present Price.	1886	1885	1884	1883	1882	1881
	d.	d.	d.	d.	d.	d.	d.
Beef inferior.	26	34	48	40	44	46	54
Do. prime.	44	46	54	60	60	56	58
Mutton middling.....	38	42	46	56	66	44	64
Do. prime.	52	52	56	66	78	55	70
Pork large...	36	32	38	46	50	50	62

Commenting upon these figures, the London *Farmer* states that before 1881 prices had risen sharply from 40d. in 1879 for inferior beef to 54d. in 1881, and slowly from 54d. for prime to 58d. Mutton of "middling" character was 52d. in January, 1879, against 64d. two years later, and it is only 38d. now. Prime mutton was 60d. in 1879 and 70d. in 1881. From 1881 to the present time the drop has been 24 per cent in prime beef, 26 per cent in prime mutton, but 52 per cent in inferior beef, and 41 per cent in inferior grades of mutton. Comparing the prices of 1879 with those now current, inferior beef has fallen in value as much as 35 per cent, and inferior mutton 27 per cent, but prime mutton and beef have fallen only 13 and 18 per cent respectively, while pork is 22 per cent lower. The great fall in the value of low-class meat is largely ascribed to its displacement by the fresh meat imported from New Zealand and the River Plata.

This shows that the shipment of dead meat in refrigerating cabins in steamships, to which we have frequently alluded, has reached a considerable amount. Give us an Isthmus canal, and this traffic could in all probability be made profitable from San Francisco.

A Double Calla.

We give on this page an outline drawing of a floral freak the like of which we have never seen before, nor has such a thing occurred under the observation of florists and floriculturists to whom it was shown. Possibly, however, in appealing to such a wide circle of observers as that comprised by the readers of the RURAL PRESS, we may find that the phenomenon is not so rare.

Col. Oscar Woodhams, who resides at 250 Clay street, in this city, has a clump of callas growing in his yard, and it has always heretofore thrown up orthodox blossoms. Judge of his surprise one day last month to see a stem bearing the twin bloom which the engraving represents. The stem is single and shows no sign of duality below the point where the two spathes start, as shown in the drawing. The spadix is simple and has the ordinary appearance. One of the spathes is larger than the other, but both are perfectly shaped and symmetrical, and the effect of doubling the envelope is quite pleasing. Who has seen such a one before?

THE *World* has organized a snowshoe expedition, under the leadership of Lieutenant Frederick Schwatka, of arctic fame, for the mid-winter exploration of that wonderland of this hemisphere, the Yellowstone National Park.

FRUIT SHIPPING.

Announcement by the Fruit Union.

In calling the attention of all interested in the future welfare of the fruit interests of the State—whether growers or shippers—to the second annual meeting of the California Fruit Union, to be held at Irving hall, San Francisco, January 19, 1887, at 1 P. M., the trustees desire to say a few words, to urge all to take particular pains to attend this meeting, and to briefly outline the various methods, as they have been suggested by different persons all over the State, for marketing our fruits the coming year.

In looking over the past year's work, two causes seem to have tended most to produce unsatisfactory results:

1st. The fact that our fruits were sold in sharp competition with themselves, a result which we sought to obviate, but failed, because there were *two* shipping organizations, each struggling for existence in the selling markets of the East.

2d. The failure of the so-called special fruit trains to place the fruit at its destination in any certain time, and because of this in good condition.

The first condition can be obviated by a united action of the combined fruit interest, so that there be but one selling agent in each large city.

The latter lies in the hands of a railroad company alone. We hope and trust they will see it to their advantage to aid and assist an interest which is alike important to them and ourselves—one which will be prosperous if managed wisely by the growers, and kindly treated by the railroad people.

We have in this first year's experience found many things which must be avoided in the management of the second year's business.

That some mistakes have been made it is useless to deny; some were made at the meeting which adopted our code of by-laws—some by the trustees.

Because of these errors many have set to work to find remedies, and many are the plans suggested.

All agree on the one point, that a combination of some nature is essentially necessary. We all desire success—success for each and all—and every one sees that it can only be obtained by the earnest co-operation of all.

Some maintain that the best way for us to handle our fruits in all markets in the East is by the auction plan, and that the existing by-laws should be changed to meet the case. A copy with the changes, as suggested, is inclosed for your consideration. Quite a number of others, while they are satisfied that this plan is probably the best for four or five of the larger Eastern cities, are extremely doubtful if it be wise policy to so frame the by-laws that all fruit, no matter to what point sent, must be sold by this method.

They would favor leaving the details of manner of selling more in the hands of the Board of Trustees, with the recommendation that the auction plan be used in certain named cities, but that in cities of less importance they use their best judgment as to manner of selling.

They argue that it is best to put the control in the hands of the trustees, a board formed alike of producers and shippers, who then elect their general manager second only in authority to the board.

They are also to appoint a traveling agent for the Union, whose business it is to be in the East during the shipping season, with headquarters say, for instance, at Omaha.

That he be ready to go at a moment's notice to any point, and inspect the condition of cars on arrival; keep himself fully posted on the condition of the Eastern markets, prices fruit is bringing, etc.; and have general supervision of our Eastern connections, reporting regularly to the general manager on this side.

All expenses to be met by the sum coming into the treasury of the Union from the difference between what commission we pay our agents and the 10 per cent charged the members for handling their fruits.

Some claim that it were best to have all agents salaried, and employ no commission men; while others favor the forming of a pool of the growers and shippers, and sell all fruits for the East on orders.

These and many other methods are suggested. We only mention them that you may give them thought, and come prepared to assist by your suggestions in formulating some plan which will be acceptable to all. With all working together, we can easily dispatch a train a day.

Enough has been sent this year to do it. This in the face of a short crop in many localities, poor prices in Eastern markets, fair in local, and the certainty that the fruit, if sent on special fruit trains, would arrive in comparatively poor condition, because of the time made by such trains.

Change the order. Give us such a crop as we have every reason to expect next year, reasonable rates and service from the railway companies, and our plans so arranged on the other side of the mountains that we may expect fair returns, at least, and who can compute the amount of fruit which will leave the State?

Judging from our local markets this year, it is plain to every one that the fruit must be sent East, or, with a full crop, augmented by the fruit from new orchards and vineyards, we will not receive enough from the sale to pay the cost of cultivation; to enable us to do this, we of necessity must have infinitely better service from the railroad companies. It would seem plain to all that this claim can be made upon them with much greater force when coming from a body embracing all the fruit-growers in this part of the State, than when backed only by the urgent appeal of individual growers.

Therefore, let us all come together, with the sincere and earnest desire to make as near as possible a perfect organization; to lay aside all jealousies caused by the work of the past year, and all pull together to secure lower and better shipping facilities; and having accomplished this, to unite on some plan that will be for the most good to the most people.

The attendance of all is desired, whether members of the Fruit Union, of any other union or association, or of none, as the nearer we can all come to working in harmony, that much nearer will we be to success. The matter of changing the existing by-laws can, of course, only be done by the vote of those entitled to a voice in the meeting.

That as full a vote may be had as possible, inclosed find a blank proxy, which, if you cannot attend yourself, fill out and sign, either for some one of your neighbors whom you know to be coming, or any one who will be in attendance, and return same at once to this office.

A. T. HATCH, President.

S. F., Dec. 24th.

Systems of Distribution Proposed.

In the circular of A. T. Hatch, president of the California Fruit Union, published herewith, there is allusion to a change in the by-laws to meet the auction plan of selling, etc. The following is the proposed Section 10, which sets forth the methods of distribution presented for the consideration of stockholders:

Shipments, Commission, Guarantee, Purchases.

SEC. 10. The Board of Directors shall, by compiling such facts and statistics as may be at their command, arrange a table of distribution subject to such changes and modifications as the market may, from time to time, demand; and it shall become the duty of the general manager to regulate the distribution strictly in accordance with such provisions.

The directors may delegate, subject to revocation, the power to change or modify the table of distribution to the general manager.

The general manager shall appoint, subject to confirmation by the Board of Directors, a commissioned agent, also an auctioneer in every city east of the Rocky mountains that can use a carload or more of California green fruits at a time.

The Board of Directors shall establish regulations to control the quality, weight, and packing of all fruits offered for Eastern shipment; and it shall be the duty of the general manager, through his inspectors, to enforce such regulations, and to reject all fruits offered for shipment that do not come up to the standard requirements.

All fruits consigned by the Union to Eastern agents shall be offered, by the auctioneer appointed by the general manager, at public auction, and sold to the highest bidders for choice of lots; the auctioneer's fees to be deducted from the agent's commission.

The auctioneer shall forward by the first mail, to every member having fruit at such sale, a copy of the catalogue, giving in print the prices realized for every lot of fruit sold at said sale.

Subscribers of stock shall contract with the other subscribers that they will not sell any fruits for Eastern shipment to any except to members of said Union (Eastern shipment meaning east of Ogden), reserving the right to sell any and all fruits for any other purpose.

Members of the Union shall be privileged to name points of destination for their fruits, and they shall be further privileged to name their own consignees. It shall be the duty of the general manager to faithfully observe such wishes, provided, the space allotted to such points of destination be not all previously applied for, and provided such members agree to have their fruits sold by public auction, by the auctioneer employed by the Union, and at the same time and place at which the fruits consigned to the agents of the Union are sold.

The Board of Directors shall establish such rules as will give all members an equal chance in naming preferred shipping points. Should the application for space to certain shipping points be greater than can be furnished, the Board of Directors may entertain sealed bids from members of the Union, at the rate of so much premium per ton, for the privilege of securing a choice of shipping points for quantities not to exceed one carload at any one shipment; provided, the term for which such privileges are let shall not exceed 30 days; and provided, that due notice to all stockholders be given through the mails by the secretary at least five (5) days before the time appointed for the opening of such sealed bids, which shall be addressed to the secretary, and opened by him in the presence of the Board and such bidders as may desire to be present; the highest bidder to have first choice during the term of 30 days or less, and so on, the directory retaining the privilege to reject any and all bids.

Division of Profits.

SEC. 11. All moneys received for such privileges shall be placed in a separate fund, and at the close of the business year shall be distributed among the stockholders, in proportion to the amount of fruit each will have shipped through the Union.

A commission of 10 per cent will be charged on all sales. Out of this 10 per cent, the Union shall pay its agents, auctioneer charges, and other running expenses.

Dividends of the earnings of the Union may be declared by the Board of Directors when, in their judgment, the affairs of the Union will justify. But in no case shall such dividend be made until all indebtedness shall be provided for.

Note from Mr. Weinstock.

EDITORS PRESS:—I was surprised to find in your issue of January 1, 1887, an article from the pen of Mr. R. H. Chinn, of Vacaville, under the heading of "Mr. Weinstock Proposed as Manager," in which he says: "We beg of you to give publicity to the inclosed letter from H. Weinstock, who, after urgent solicitation, has agreed to serve as our manager."

I thoroughly appreciate the kindly spirit that prompted Mr. Chinn in writing the above, but my private affairs will not permit me to be a candidate for any position that will demand the greater part of my time. H. WEINSTOCK.

Sacramento, Jan. 2.

ENTOMOLOGICAL.

Fighting the Codlin Moth.

The Petaluma *Courier* of recent date contained a letter signed "A. C.," which we take to mean A. Cadwell, the well-known fruit-grower. We quote the following:

I find many who propose to dig up their apple trees. Some say they will sell theirs to the drier, while others say there is nothing in that; still another says, I will give mine to the hogs. Why do they come to this conclusion? Because we have to spray the trees with some kind of soap in the spring, we have to put bands on our trees and change them every eight days through the season, and all this costs money. Then, if we neglect to attend to the bands only once, or our neighbor allows his to go free, when picking-time comes we find we have very few apples suitable for market. So that the difference between hauling our apples to the drier, or being put to this trouble and expense to ship a few to market, is so little (especially if Oregon should ship in about 10,000 boxes at the same time) that we prefer to take the easiest way. This I find is the decision of nearly all the small growers. On the other hand, some of the large growers say we must keep right along, as this is our business, and the country must have apples, even if they get them from the East, and we certainly can compete with the East and North, and so we can with industry and perseverance, which is required in any business at the present day to make a success of it. I, for one, have found that by spraying my trees in May thoroughly with the sulphur soap of Mr. Jamison, of Petaluma, it not only destroys the first hatching of the codlin moth, but checks the mildew to that extent that it will make but little heading afterward. Then I put on my bands, examine them every eight days, never missing one day. In addition to this, on the 1st of August I examine the forks and loose bark on the trees, which saves much more damage from the pest, and then when I pick my fruit I have two men to sort the wormy from the good ones, so that the former can be taken to the drier.

I put my good apples in a house lined with straw to keep it cold, then I wet them and keep the door open nights, and early in the morning close it. In this way I keep the fruit cool and moist, which is very essential to their preservation and flavor. When these apples are packed and placed in rows, one at a time, until the box is full, they are then classed as No. 1, No. 2 and Xmas. Then comes the pruning of the trees, which requires skill, tact and good judgment. The trees while young require but little pruning, but as they grow older they incline to fruit spurs, and the pruning should be done so as to take off as many of these as possible and leave the new wood. But there is a difference between new wood and water sprouts, which grow up in the middle of the tree. So that the new beginner can plainly see that unless he has enough to take up his whole time, there will be but little in it. And I still think that a good orchard of apples in a good location, well managed, will pay a man handsomely, notwithstanding that Oregon and the East are trying to divide the profits with us.

A Deep Mystery.

Wherever you are located you should write to Hallett & Co., Portland, Maine, and receive free, full information about work that you can do and live at home, making thereby from $5 to $25 and upward daily. Some have made over $50 in a day. All is new. Hallett & Co. will start you. Capital not needed. Either sex. All ages. No class of working people have ever made money so fast heretofore. Comfortable fortunes await every worker. All this seems a deep mystery to you, reader, but send along your address and it will be cleared up and proved. Better not delay; now is the time.

READERS of our paper who will send their full name and P. O. address to the Eureka Salt Manufacturing Company, limited, P. O. Box 3241, New York, will be furnished, free of charge, a valuable pamphlet on "How to make the Best Butter," by a prominent dairy authority, in beautifully lithographed cover, showing portrait in colors of the famous Jersey cow "Oakland's Cora."

It Should Always be Borne in Mind

That time is the only really impartial test of genuine merit, and that according to the universal law of "the survival of the fittest," few sewing machines have withstood this test. Therefore, the only safe thing to do is to buy what time has proven to be the fittest"—the "DOMESTIC" SEWING MACHINE.

Farmers and Travelers

Sojourning in Marysville will find the Western Hotel the best in the city, being clean, quiet, comfortable and reasonable in prices. Geo. Wappel, proprietor.

Scalds,
Sprains,
Burns,
Bruises,
Cuts,
Frost-bite,
need prompt care
Perry Davis'
PainKiller
is the best remedy
for such Troubles.
Take a bottle home
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Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.
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Reasons why Sherwood's Steel Harness is the Best and should and will be Universally Used:
1.—It is a common sense Harness. 2.—It is made of material that will last a lifetime. 3.—In plowing, dragging, logging and scraping there are no whiffletrees. 4.—In all farm work you can change from plow to wagon quick. 5.—In plowing in the orchard, you can't bark fruit trees. 6.—In plowing and cultivating hops it has no equal. 7.—In plowing along the fences you can get two furrows closer. 8.—Horses cannot step over the traces, or calk themselves. 9.—A small boy will handle plow readily. 10.—There is no weight on plow beam. 11.—Team works one-third easier. 12.—There is no chafing, crowding or fretting of team. 13.—For man and team it has no equal. Do not hesitate, but order at once from your nearest agent. Address
TRUMAN, ISHAM & HOOKER,
San Francisco, Cal.

ANNUAL MEETING.

The regular Annual Meeting of the Stockholders of the Grangers' Bank of California, for the election of Directors for the ensuing year, will take place at the office of the Bank, in the city of San Francisco, State of California, on Tuesday, the 11th day of January, 1887, at 1 o'clock P. M. For Grangers' Bank of California.

ALBERT MONTPELLIER,
Cashier and Manager.

CLIMAX SPRAY PUMPS.
To those in want of a first-class Spray Pump we can say that these Pumps are, without a doubt, the very best Spray Pumps to-day in the market. Made expressly for service in the Orchard, and the only Pump having all its parts, valves, etc., made of non-corrosive metal, and has received the highest awards over all others for the past three years. Send for circulars and prices.
CLIMAX SPRAY PUMPS,
18 California St., S. F.

THE LUMBERMAN.

Our Lumber Resources.

The lumber business of California is one of our most valuable industries, and one closely connected with the development of the State. No town or district can materially progress in population or wealth without drawing upon the lumber interest, and all such drafts add materially to the wealth of the State, from the fact that our lumber is a natural product of the soil and made available only by the employment of the labor and capital of our own people. One great drawback to the lumber interests of California is the lack of proper means of transportation. The timber resources of Sonoma, Mendocino and Humboldt and other counties to the north are very extensive, and will soon be made fully available by the construction of railroads now in progress or in contemplation, while the extension of the southern railroad through Santa Barbara and San Luis Obispo counties will open up still other sources of lumber. Branch roads will also soon be extended from the main line into the western slope of the Sierras, which also abound in the finest of timber lands. For a brief description of the timber region to the north of this city, we cannot do better than to copy the following from *Harper's Weekly:*

The cutting of the redwoods is the mammoth lumbering of the world. California has no competitor in big trees. They belong to the genus *Seguoia*—a name derived from Sequoyah, a Cherokee, who invented an alphabet and written language for his Indian tribe—and are of two species. They are found in the track west of the Sierra Nevada mountains between the 34th and 42d degrees of latitude, ranging in hight from 200 to 400 feet and in diameter from 8 to 25 feet.

In Sonoma, Mendocino and Humboldt counties, reaching from the Golden Gate to Oregon, are immense redwood forests covering an area from 2 to 20 miles wide and nearly 200 miles long, from which millions of feet of lumber are now cut annually. Redwood is the most valuable timber in the State. As yet no railroad traverses this territory, but work has been begun on lines which will soon bring the lumbering camps within easy reach of the market. The redwood is a coniferous evergreen, resembling in some respects the cypress. The wood, which is extensively used on the Pacific Slope for building and is seen in recent houses in Boston and Chicago, is of a fine red color, but fades slowly when exposed to the light. The shrinkage is principally lengthwise, and in California the wood is very popular. The timber land is exceedingly valuable, as single trees are often worth $600 or $700, the current price of redwood being $16 to $30 per thousand. A trip to a redwood lumbering camp is full of interest.

Characteristics of Good Timber.

There are certain appearances which are characteristic of strong and durable timber, to what class soever it belongs. 1. In the same species of timber, that specimen will, in general, be the strongest and most durable which has grown the slowest, as shown by the narrowness of the annual rings. 2. The cellular tissue, as seen in the medullary rays (when visible), should be hard and compact. 3. The viscular or fibrous tissues should adhere firmly together, and should show no wooliness at a freshly cut surface, nor should it clog the teeth of the saw with loose fibers. 4. If the wood is colored, darkness of color is in general a sign of strength and durability. 5. The freshly cut surface of the wood should be firm and shining, and should have somewhat of a translucent appearance. A dull, chalky appearance is a sign of bad timber. 6. In wood of a given species, the heaviest specimens are in general the stronger and more lasting. 7. Among resinous woods, those which have least resin in their pores, and among non-resinous woods, those which have least sap or gum in them, are in general the strongest and most lasting. 8. It is stated by some authors that in fir wood that which has most sap wood, and in hard wood that which has the least, is the most durable; but the universality of this law is doubtful. Timber should be free from such blemishes as clefts or cracks radiating from the center, "cup shakes" or cracks which partially separated one annual layer from another; "upsets," where the fibers have been crippled by compression; "rindgalls," or wounds in a layer of the wood, which have been covered and concealed by the growth of subsequent layers over them, and hollows or spoony places, in the center or elsewhere, indicating the commencement of decay.—*Prof. Rankine.*

TIMBER DEPREDATIONS IN OREGON.—The Capital Lumber Company, of Salem, Oregon, is charged with cutting upon the public domain of that State 3,200,000 feet of lumber, valued at the mill at $14 per thousand, or $45,000 in the aggregate. Some time ago the company, fearing prosecution, offered the Government in compromise $5000. The Solicitor of the Treasury sent the offer to the Attorney-General, who directed the United States District Attorney for Oregon to investigate and report. He did so, and recommended that no compromise should be accepted for a sum less than the value of the stumpage, $32,000. Lately the company made another offer to compromise in the sum of $10,000, and it was accompanied by a recommendation from the District Attorney that that sum be accepted. In explanation of this the District Attorney reported that upon further investigation he had found that the agent who had investigated and reported upon the depredations had not valued the stumpage at all, but had lain "sodden drunk" in a cabin while two persons he had deputed, but who were not familiar with the lines, did the counting. The prosecuting attorney fears that the effect of such a revelation upon a jury would destroy his case, and he thinks it safer to compromise. The Secretary has ordered a new investigation of the facts and the case carried to a prosecution unless settled. The timber agent charged with drunkenness was for a long time connected with the homestead division of the General Land Office.

CALIFORNIA FORESTS.—The New York *Post* of Nov. 29th had this to say about California forests: California is becoming aroused to the necessity of doing something to preserve her forests. Abundantly as she was supplied by nature with trees, the destruction wrought by the woodman's ax, aggravated by the devastations of mountain fires, often recklessly started, have caused really an alarming diminution of the acres of timber in all parts of the State. The State Board of Forestry at last shows some activity, and proposes to submit to the Legislature a recommendation for the protection of growing timber and the encouragement of forest culture. There is also evidence that public sentiment is becoming aroused to the sense of the fact that even the natural resources of California cannot forever withstand the reckless waste which always characterized her people.

SOME idea of the lumber interests of Los Angeles may be obtained when the fact is made known that on an average over a million feet of lumber of various kinds is used there and thereabouts every month. Nearly 200 vessels of various classes are employed in transporting to that market the products of the lumber mills up the coast all the way from Mendocino to Puget Sound and even further north. Possibly the most prosperous of all commercial pursuits in Los Angeles is the lumber interest, and those interested are among the city's most enterprising and energetic business men.

CUTTING YOUNG PINE TREES.—The too common practice of cutting young pine trees for fuel and poles, which have grown up along the base of the Sierras where the heavy timber was taken off years ago, should in some way be discouraged, for if allowed to grow it would not be many years before the denuded mountains would again be clothed in their pristine beauty. —*Reno Gazette.*

TREATMENT OF FALLEN TIMBER.—A Government inspector of timber in France recommends for timber used in ship-building one year's immersion in river water, two years in fresh, or three in brackish water, constantly being changed, to be followed by two years of air seasoning.

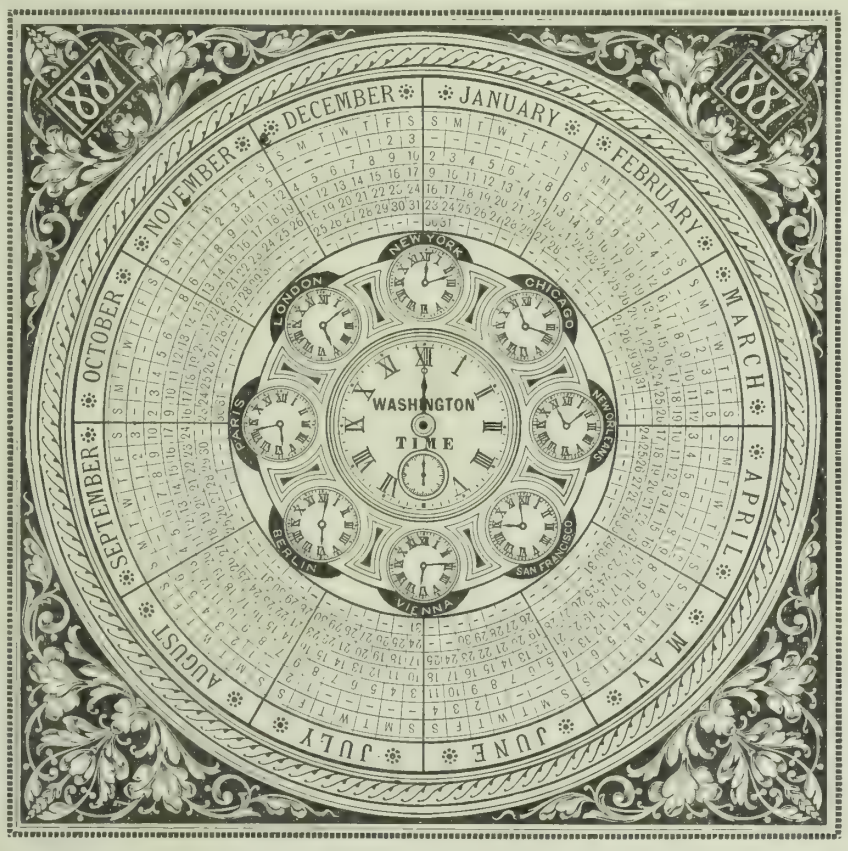
Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Early Canadian Settlements in the Willamette Valley.

Of the beginnings of agricultural pursuits in the Willamette valley, Hubert Howe Bancroft's "History of Oregon" gives the following account:

In 1828, the whole Northwest territory was under the rule of the Hudson Bay Company and John McLaughlin, the company's Governor at Fort Vancouver. One of the company's employes, Etienne Lucier, whose time had expired, asked the Governor if he believed the Willamette valley would ever be occupied by settlers. The latter replied that wherever wheat grew there would be a farming community. Lucier then asked what assistance would be given him should he settle as a farmer. The Hudson Bay Company was bound under heavy penalties not to discharge their servants in the Indian country, but to return them to the place where they had been engaged. McLaughlin was in favor of making settlements, and devised a plan to keep the men in the country without acting against the letter of the charter: First, to avoid the penalty, the men must remain on the company's books as servants; but they might work for themselves and no service would be required of them.



Second, they must all settle together and not scatter about among the Indians, with whom their half-breed children would be taught by their mothers to sympathize, making them dangerous neighbors; while by keeping their Indian wives among themselves exclusively, these women would serve as hostages for the good conduct of their relatives in the interior. Third, each settler must have 50 pounds sterling due him to supply himself with clothing and implements, which rule was designed to make them saving and industrious, and by making their farms cost them something, attach them to their homes. Fourth, seed for sowing and wheat to feed their families would be loaned them for the first year, and two cows for an indefinite period. These were the terms which only secured the better class of Canadians as settlers, and kept the idle and dissolute from becoming incorporated with them. The American trappers, having no credit on the company's books, were nevertheless assisted in the same way and to the same extent, as the best means of making them good citizens instead of roving firebrands among the Indians. At the end of the first three years all the settlers, French and Canadian, were out of debt.

PERCHERON HORSES—A VALUABLE COMMENDATION.—The exhibition of fine horses in connection with the annual American Fat Stock Show at Chicago has become a very attractive feature. At the late exhibition for 1886 the show of draft horses was exceptionally grand. The finest specimens of Clydesdale, English draft, Shire and Percherons were present in large numbers from all parts of the country, and evoked the admiration of the thousands of visitors. The most notable exhibit, and the center of attraction, was that of beautiful black Percherons, of the royally-bred Brilliant family, from the Oaklawn stud of M. W. Dunham, Wayne, Illinois. While looking at them, admiring their splendid proportions, one of the visitors, Mr. Heineman (the most extensive country buyer of horses in the United States, who supplies with draft horses the great horse dealer of New York, I. H. Dahlman), said: "I would give $50 more for a draft horse showing strong marks of French blood than for any other breed." Coming from such a competent judge of the value of horses, this is a high compliment to the Percheron breed, and valuable information to those breeding horses for the market.

A Blessing.

Nothing adds more to the security of life, of happiness, and of health, than a safe and reliable family medicine. S. L. R. has won for itself the appellation of "the family blessing." If a child has the Colic, it is sure, safe and pleasant. If the father is exhausted, overworked, debilitated, it will restore his failing strength. If the wife suffers from Dyspepsia, Low Spirits, Headache, it will give relief. If any member of the family has eaten anything hard to digest, a dose of the Regulator will soon establish good digestion. It gives refreshing sleep even in cases where narcotics have failed. It is a preventive, perfectly harmless, to begin with, no matter what the attack, it will afford relief. No error to be feared in administering; no injury from exposure after taking; no change of diet required; no neglect of duties or loss of time. Simmons Liver Regulator is entirely vegetable and is the purest and best family medicine compounded. J. H. Zeilin & Co., Philadelphia, Pa., sole proprietors.

H.H.H. HORSE LINIMENT.



THE H. H. H. Horse Liniment puts new life into the Antiquated Horse! For the last 14 years the H. H. H. Horse Liniment has been the leading remedy among Farmers and Stockmen for the cure of Sprains, Bruises, Stiff Joints, Spavins, Windgalls, Sore Shoulders, etc., and for Family Use is without an equal for Rheumatism, Neuralgia, Aches, Pains, Bruises, Cuts and Sprains of all characters. The H. H. H. Liniment has many imitations, and we caution the Public to see that the Trade Mark "H. H. H." is on every Bottle before purchasing. For sale everywhere for 50 cents and $1.00 per Bottle.

For Sale by all Druggists.

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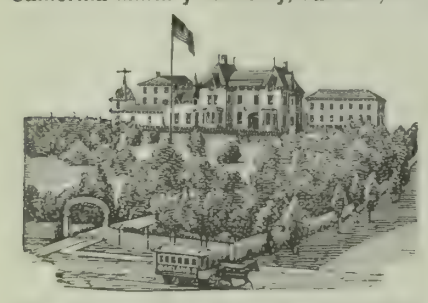
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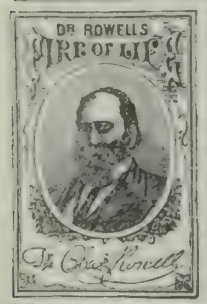
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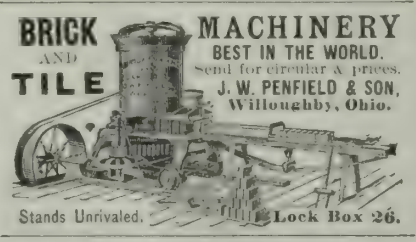
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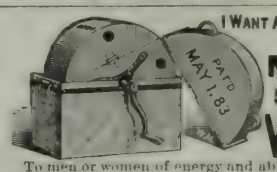
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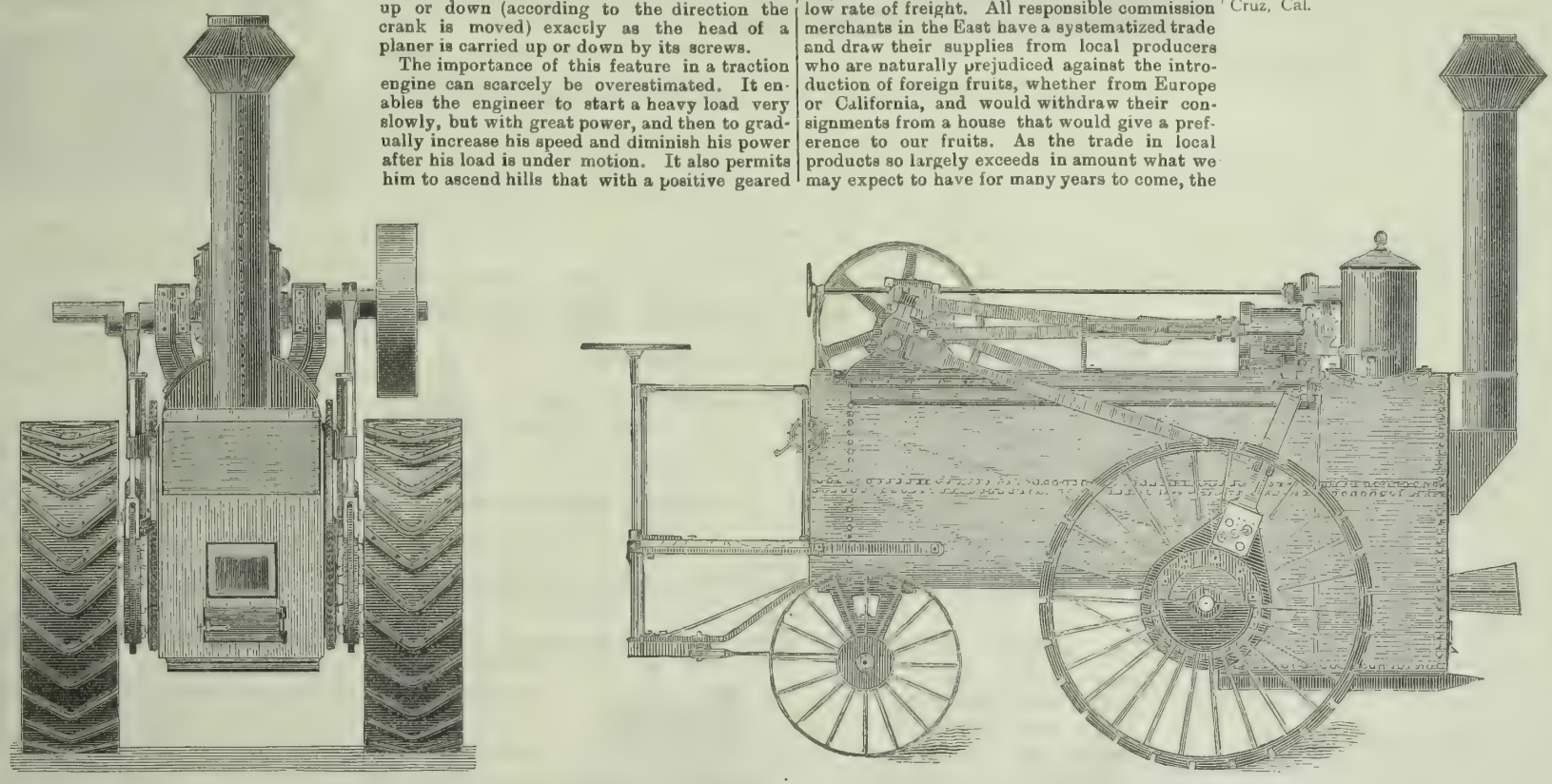
A New Traction Engine for Farm and Road Use.

The fact that a common straw-burning traction engine will successfully and economically drive a combined harvester and thrasher cutting 25 feet or over was demonstrated last season by Mr. G. S. Berry, of Visalia. He not only proved that it would run a combined harvester using straw as a fuel, but that it would also pull a gang of 20 10-inch plows, running from 4 to 6 inches deep, as is now being done daily on his place with the consumption of about three tons of straw per day.

This seems to threaten a revolution in plowing, harvesting and thrashing in our great valleys, for it implies that the power to perform these heavy and hitherto expensive operations may be found in a small fraction of the straw that has been deemed almost useless in our great wheat-growing sections.

The great field thus suddenly and almost unexpectedly opened for the use of traction engines has directed the attention of our inventors to their defects and incited them to efforts to improve them.

Among the first to attempt this is an old acquaintance of the readers of the RURAL, Jacob Price, of San Leandro, who recently brought to this office, for the purpose of securing a patent, drawings of the machine, illustrated on this page, and which will be fully understood



NEW DESIGN FOR TRACTION ENGINE, BY JACOB PRICE, OF SAN LEANDRO, CAL.

from the following description in connection with the cuts.

It is needless to explain to those who are familiar with traction or field engines that in all of them the rapid motion of the crank or flywheel shaft is reduced and transmitted to the driving or carrying wheels by trains of cogwheels.

The cogwheels thus employed are from 10 to 14 in number, and add greatly to the weight and cost of the machine, to say nothing of the large percentage of power that they consume by their friction.

Mr. Price's invention dispenses with these entirely. He employs in their place two friction ratchets (one on each side) which get their motion from the flywheel shaft by the connecting rods, as shown.

These connecting rods get their motion from cranks in the main crank shaft just outside the main boxes. (See end view.) These cranks have only about two inches throw, so that they work the ratchet levers back and forth about four inches at the point where the connecting rod attaches. It is understood, of course, that the friction ratchets, like all ratchets, slip freely in one direction, but grasp and hold firmly in the other.

The hubs of these ratchets are keyed securely to the main axle of the engine. This axle, by the alternate motions of the two ratchets, is given a constant and steady motion forward, carrying the large driving-wheels with it, and thus propelling the machine. The driving-wheels, like those of a two-wheeled mower, may slip forward on the axle to permit turning.

These simple devices, thus dispensing with the trains of gearing, appear to be a great improvement, as they save power, reduce cost and weight, simplify construction and greatly lessen the liability of breakage.

But still the most important and novel feature of the invention remains to be described, viz.: The power or leverage of the steam on the driving-wheels may be increased or diminished by the operator at will, when the engine is advancing or standing still.

In other words, the power of the machine to pull a load can, within certain limits, be increased or diminished, as desired. This somewhat remarkable mechanical effect is produced by very simple means, clearly shown in the side view. It consists in making the points of the attachment of the connecting rods to the ratchet levers movable up and down, the result being that when said points are moved to the upper ends of the ratchet levers the pulling power of the engine is increased immensely, being at least eight or ten times as great as when these points are at their lowest position. In other words, the steam, through the medium of its engine, is allowed to use a longer lever when heavy work is to be done, just as a man pumping water naturally takes hold near the end of the handle if the pump goes hard.

The method of raising and lowering these points is shown in the end view, but not very clearly. The connecting rods are connected to a block of metal having a mortise through it the size of the ratchet lever. These blocks therefore may slide up and down on the ratchet levers freely, but they are connected to long screws (seen just inside of the ratchet levers and parallel to them). These screws have bevel pinions on their lower ends, actuated by bevel wheels working central to the main axle of the machine and having on their outer edges sprocket teeth, which enables them to be turned by the chain belt so clearly shown in the side view. It will be seen that by turning the hand-crank at the front end of the boiler (the end opposite the fire-box) the screws will be rotated, carrying the metal blocks referred to up or down (according to the direction the crank is moved) exactly as the head of a planer is carried up or down by its screws.

The importance of this feature in a traction engine can scarcely be overestimated. It enables the engineer to start a heavy load very slowly, but with great power, and then to gradually increase his speed and diminish his power after his load is under motion. It also permits him to ascend hills that with a positive geared engine would be impracticable, or to go over bad ground or pull out of a ditch.

These features also adapt it perfectly to operating combined harvesters and thrashers, for it must be borne in mind that the engine and flywheel shaft of this machine runs at a constant and unvarying speed, whether the whole machine advances slowly or rapidly; hence if the cutting and thrashing apparatus of a harvester is run from the flywheels the speed will always be the same, though the engineer may, if the grain be heavy, slow down the forward motion (thus reducing the amount of straw delivered to the thrasher), while, as before stated, the thrashing cylinder and sickle runs at full speed.

The boiler here shown is Tindall's patent return-flue straw-burner. The portion reaching forward from the fire-box is oval in form—not round. Its thickness or width in this engine is 34 inches, while its depth is 46 inches. In the lower portion, reaching from the fire-box forward, are several large flues, while in the upper portion are the return-tubes. The form of the boiler is symmetrical and compact, and its heating surface is very great. However, any type of boiler or engine may be used, the invention relating only to the means used for dispensing with the cog gearing and the device employed for increasing or diminishing the power of the engine on the driving-wheels.

LOTE TREE SEEDS.—The article by Dr. A. Kellogg, on Parry's Native Jujube or Lote tree, which appeared in the RURAL PRESS for Dec. 11th, has awakened a good deal of interest. Mr. Abbot Kinney, Chairman of the State Board of Forestry, writes Dr. Kellogg that he has had in consequence many inquiries for plants and seeds, which he has been unable to satisfy. Can any of our readers furnish the seed or plants?

EXPERIMENT STATIONS AND CALIFORNIA CONGRESSMEN.—Secretary Chester, having transmitted to our Members of Congress the resolution of State Grange, in favor of Mr. Hatch's bill for agricultural experiment stations, has received favorable replies.

The Placer County Fruit-Growers' Views.

EDITORS PRESS:—Many fruit-growers in this county have been interviewed by the writer, and all approve of the plan proposed by Mr. H. Weinstock, of having California fruits sold at auction in the Eastern markets.

After more than 20 years' experience as a dealer in foreign fruits in the Atlantic States, I feel that I may be permitted to make the assertion that the information gathered by Mr. Weinstock on this subject during his recent tour through the Eastern States, and given to the public through his published letters, is wonderfully accurate and comprehensive, and the resolutions offered by him are worthy of being adopted without material change by the fruit-growers at their meeting to be held on the 19th inst.

The commission men of this State have handled, and will probably continue to handle, a large proportion of the fruit consumed in our near markets. Their sales, however, are made direct and at stipulated prices. Freights, deterioration of fruit while in transit, or losses of whatever nature, must be met by the purchaser.

For our increasing products there is an insufficient demand at home. We have then to place them upon the markets of the East in large lots, in order to secure the indispensable low rate of freight. All responsible commission merchants in the East have a systematized trade and draw their supplies from local producers who are naturally prejudiced against the introduction of foreign fruits, whether from Europe or California, and would withdraw their consignments from a house that would give a preference to our fruits. As the trade in local products so largely exceeds in amount what we may expect to have for many years to come, the commission man will, as a matter of policy, first sell the goods of his local consignor, who is near at hand to look after his own interests, should he even suspect they were being neglected; while the fruit of the foreign owner is wholly neglected until the local supply is exhausted, by which time it may have become worthless.

This may occur even when the fruit arrived in good condition, and might, perhaps, have been sold at a fair price at some point outside of the regular trade of the consignee; but if the cost of so doing should exceed the commission, the effort is liable not to be made, and the fruit allowed to be lost, as expenses are all paid by the shipper, even if his fruit is never sold.

There is no way in which a car or more of fruit that is particularly perishable or arrives in poor condition can be sold to realize so much money to the owner as at auction, even if sold for less than cost. If, because of imperfect condition or an overstocked market, it cannot all be placed by purchasers among regular customers, they then extend their sales to more remote points, and perhaps into entirely new fields. This fruit that may have been sold at a loss to the shipper will then be the means of opening a market for increased trade, and may be no more expensive than other methods of getting custom.

It will not do to both sell at auction and private sale at the same time and place, as the rivalry would cause the same disaster to owners that has occurred in Chicago during the last season.

Shippers who are not growers should join in this movement in order to avoid the possibility of direct competition, and the overstocking of any place in the Eastern markets. There is little fear that the average producer will desire to ship fruit East on his own account, if the shipper will buy his entire crop at a fair price; but it is quite certain he will not be content to let the buyer have the cream of his crop at such times only as may suit his convenience; and having no other arranged outlet, run the risk of losing the balance.

It is the opinion of the people of this neighborhood that every grower and shipper of fruit should combine as members of the Calif. Fruit Union, or under any other name that may be preferred, adopting the plans of Mr. Weinstock to sell our fruits in the East at auction, and place him at the head of the organization as president and manager. P. W. BUTLER.

Penryn, Placer Co., Jan. 3, 1887.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING DECEMBER 28, 1886.

355,114.—ELEVATOR—Henry Albert, Crescent City, Cal.

355,126.—ARTIFICIAL TOOTH—C. E. Blake, Sr., S. F.

355,251.—HYDRAULIC DREDGER—A. B. Bowers S. F.

355,132.—ADJUSTABLE NAME-PLATE—Brown & Roller, S. F.

355,061.—WASHING MACHINE—Sabina W. Cook Dayton, W. T.

355,143.—GAS STOVE—C. A. Cushing, S F.

354,895.—BABY-WALKER—Sarah E. Gleason, Tacoma, W. T.

355,163.—SEWER SYSTEM—C. E. Grunsky, Sacto.

354,899.—FORCE-BLAST CUPOLA—Mark Hamm, Stockton.

355,179.—BARK-CUTTER—R. C. Kirby, Santa Cruz, Cal.

355,094.—PNEUMATIC DREDGER—W. P. Lewis Oroville, Cal.

354,923.—EXTRACTING NICKEL AND COBALT FROM ORES—D. Mindeleff, S. F.

355,097.—WATER ENGINE—P. F. Morey, Portland, Ogn.

355,208.—HEATING ATTACHMENT FOR STOVES—R. A. Rew, Pomeroy, W. T.

354,937.—SMOKE BONNET—W. Rose, Sacto.

355,227.—HINGE FOR BOXES, ETC.—J. V. Snyder, Santa Maria, Cal.

354,950.—FENCE-POST BASE—J. D. S. W. P. Tilton, Yakima, W. T.

17,040.—DESIGN—F. M. Gilham, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

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It was an aphorism of Frederick the Great that "Facts are divine things." An undisputed fact is that Dr. Pierce's "Golden Medical Discovery" is the most powerful liver vitalizer extant, and by its characteristics and searching action will cure dyspepsia, constipation, dropsy, kidney disease, sick-headache, and other maladies which, popular opinion to the contrary notwithstanding, are directly traceable to a diseased condition of the liver, by which its work as purifier of the blood is made incomplete. All druggists.

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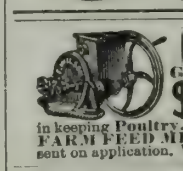
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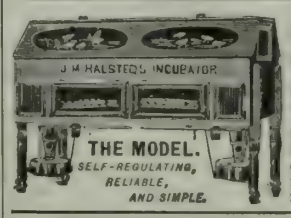
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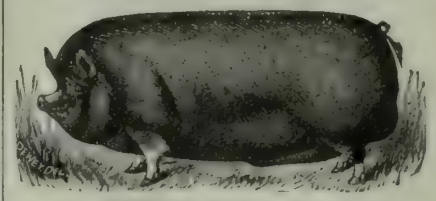
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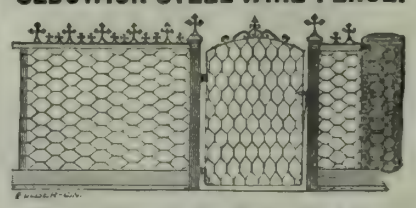
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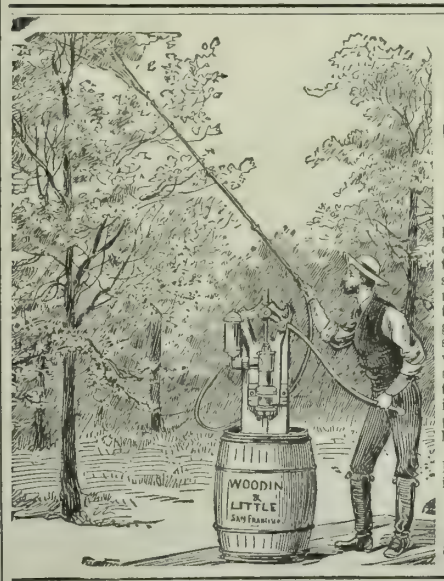
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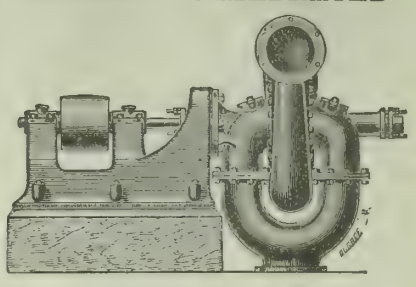
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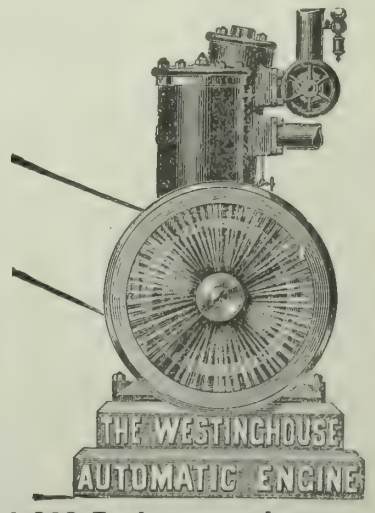
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DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 5, 1887.

The past week was interrupted by the usual holiday festivities, but now that they have passed more active trading is looked for. Notwithstanding the holidays, wheat, barley and oats advanced under liberal buying. The English wheat markets ruled very strong, with a strong closing to-day, as follows:

LONDON, January 5.—WHEAT—Dull and irregular. California spot lots, 7s 7d to 7s 10d; off coast, 38s; just shipped, 40s; nearly due, 38s 6d; cargoes on passage quiet but steady; English country markets, generally dearer; French, firm; Wheat and flour in Paris, firm.

Eastern Wool Markets.

NEW YORK, Jan. 1.—The markets here and in Boston and Philadelphia are slightly active for the closing week of the year. In this market there is nothing new to report, while the general tone of business is fairly prosperous. Wools and woolen goods continue dull. In Boston, California wool is very quiet, and is either held out of market or is selling without a profit. Territory wool is still in heavy stock and more or less pressed for sale, and the market is emphatically in buyers' favor, though quotations are no better nor lower than last week. In Philadelphia, stocks of all descriptions are light and low, and medium wool is generally held with confidence in anticipation of an improving trade. Fine fleeces and territory wools are regarded with less confidence than other descriptions, and on these the market inclines in buyers' favor, but there is no quotable change from last week's prices. Among the sales were: 10,000 pounds East Oregon, at 16@17c; 25,000 pounds East Oregon, at 21@24c; 60,000 pounds territory, at 16@21c; 20,000 pounds territory, at 22½c; 120,000 pounds territory, at 21@24c; 25,000 pounds medium, at 25c; 75,000 pounds Wyoming and Utah, at 19@27c.

BOSTON, Jan. 3.—The Boston *Post* of the 1st inst. says: The demand for domestic wool the past week has been quite good and the sales amounted to 2,158,500 pounds. The market continues firm, and prices remain about the same. Holders are confident that present prices will be sustained and that manufacturers will become free buyers in a short time. The interior markets are well cleared of wool, and foreign markets continue firm and are still considerably above the importing point. In Australian wools there have been sales of 75,500 pounds, at 34 and 39c. The other sales of foreign have been 30,000 pounds Montevideo, 363,000 pounds Mediterranean carpet, 15,000 pounds East Indian carpet, and 40,000 pounds sundries, on private terms. For California wool, the market is very quiet, and only 75,000 pounds have been reported, on private terms.

Foreign Review.

LONDON, Jan. 3.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says the markets are sparingly supplied. English wheat is 2s higher than before the holidays. The flour trade has a decided upward tendency—prices being from 6d to 1s higher. The sale of English wheat during the week footed up 34,766 quarters, at 35s, against 30,245 quarters at 30s during the corresponding period of last year. The general values are about 1s better. Two cargoes of wheat have arrived; one remained. At to-day's market, English wheat was strong. During the past fortnight the advance has ranged from 1s 6d to 2s. Flour was firm; the fortnight's rise was 1s 6d. Corn was slightly cheaper. Beans and peas were unchanged.

New York Wheat Market.

NEW YORK, Jan. 1.—The wheat market was quiet, but steady, down to Thursday's opening, when it became more active, and prices advanced on stronger European market reports and warlike rumors. Exporters were buyers for early shipments. The market on Friday ruled active, closing steady; spot, 2½@2⅞c higher; options, January, 93¾c; February, 94⅝c; March, 96½c; May, 98¾c.

New York Hop Market.

NEW YORK, Jan. 1.—The market has developed no change. Coast crop, 1886, prime to choice, 25@27c; fair to good, 22@24c; 1885, good to choice, 10@13c.

Eastern Dried Fruit Market.

CHICAGO, Jan. 1.—A steady and firm feeling prevails in the dried fruit market here. The market at the same time rules rather quiet, arrivals are still light and offerings limited. Jobbers and dealers are busy, taking stock, and are not looking around much. California dried fruits—Raisins are easy, but other kinds are steady and firm, and the demand is fair. Prunes, French, per lb, 9c; plums, pitted, 13@14c; peaches, quarters, 12@13c; halves, pared, 25c; nectarines, 9c; pears, 8@12½c; raisins, London Layers, 20-lb boxes, per box, $1.75@1.80; raisins, loose Muscatel, per box, $1.50@1.60.

NEW YORK, Jan. 1.—Raisins—The movement is moderate, confined principally to better grades, which, being in limited supply, are held steady. Two-crown loose Muscatel, $1.40@1.45; London Layers, $1.95@2; California two-crown, $1.60@1.65; three-crown, $1.85@1.90; London Layers, $1.95@2.20. Prunes—Turkish in limited request, at 5c. French, firm, at 7⅞@8c for 60's@90's. Currants in moderate demand, at 5¼@5⅜c. Citron, 17½@17¾c.

California Products in New York.

NEW YORK, Jan. 1.—California Lima beans are quiet, at $1.80@1.85.

Local Markets.

BAGS—The market holds to strong prices for Calcuttas, with fair trading for futures, which would be largely increased with heavy rains soon.

BARLEY—The market held to strong prices throughout the week, owing to stronger holding and a good demand. On Tuesday, prices weakened off, but closed higher to-day. On Call, transactions were large and higher figures. The following are to-day's sales on Call: Morning Session: Buyer season—500 tons, $1.15¾; 1000, $1.16; 100, $1.16¼; 100, $1.16⅜; 200, $1.16½; 200, $1.16⅝; 800, $1.16¾; 900, $1.17; 400, $1.17⅛; 500, $1.17¼. Seller season—400 tons, $1.08½; 100, $1.08⅝; 200, $1.08¾; 100, $1.09; 100, $1.09¼. May, 100 tons, $1.11 ₩ ctl. Afternoon Session: Buyer season—1100 tons, $1.17; 400, $1.16¾; 900, $1.16½; 400, $1.16⅜. No. 1 Brewing, buyer season—300 tons, $1.28 ₩ ctl.

BUTTER—The market is soft, with only gilt-edged wanted. The market is overstocked with fresh made from new pasturage.

CHEESE—The market is very strong, with an advance obtainable.

EGGS—The market is weak at 30 cts top for gilt-edged or strictly choice fresh ranch. The demand is increasing, but so are receipts.

FLOUR—The market is exceedingly strong, with an advance asked and obtained for the more choice brands. Local dealers are more disposed to stock up, owing to the higher advancing market for wheat. The exports, last year, aggregate 1,124,615 bbls, against 1,295,657 bbls in 1885. Of the exports last year, China took 421,698 bbls, and Great Britain, 469,385 bbls.

WHEAT—The market continued to advance up to Monday, when it weakened off, but rallied again to-day, closing very strong, with $1.60 bid for No. 1 shipping season, storage paid at Port Costa. Call transactions have been large throughout the week. The following are to-day's sales: Morning Session: Spot, season's storage paid—500 tons, $1.60. Buyer season—700 tons, $1.67⅞; 900, $1.68; 100, $1.68⅛; 1600, $1.68¼; 200, $1.68⅜; 800, $1.68½; 900, $1.68⅝; 400, $1.68¾; 100, $1.68⅞; 2700, $1.69. Seller 1887—200 tons, $1.55 ₩ ctl. Afternoon Session: Buyer season—6100 tons, $1.69; 1900, $1.69⅛; 5400, $1.69¼; 300, $1.69⅜; 1600, $1.69½. Buyer 1887—100 tons, $1.75 ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Although the wheat market closed the year 1886 very strong, yet the new year opened on a higher and excited market. The causes which have led to the high market this paper has set forth in previous issues, and pointed out the certainty of very high prices ruling before the close of the season. This position was taken in July last, and maintained ever since, notwithstanding the daily press, without an exception, seemingly worked in exporters' favor by bearing the market so as to have farmers sell at low prices. The exports of wheat last year from this port aggregated 15,832,155 ctls against 11,727,895 in 1885. The stock of wheat in the warehouses in this city and Port Costa, on January 1, was 87,438 short tons. It is claimed by well-informed parties that the stock carried by interior warehouses is very considerably short of the quantity carried on January 1, 1886, but this cannot be verified until the Produce Exchange's account of stock in the State is made public. In the absence of this official statement, the following is given in short tons:

Wheat on hand July 1, 1886	75,000
Total 1886 wheat crop	1,100,000
Probable receipts from Oregon	35,000
Total	1,210,000
Local wants and seed to December 31, 1886	200,000
Total exports, everywhere, to December 31, 1886	540,000
	740,000
On hand January 1, 1887	470,000
Local wants, January 1 to July 1, 1887	150,000
Probable export, January 1 to July 1, 1887	300,000
	450,000
On hand July 1, 1887	20,000

With a 20,000 tons carryover, one and all must concede that high prices will obtain from now on, even if the foreign market does not advance; but all present advices point to still higher values abroad.

In last week's issue we stated that higher prices for barley were inevitable, which was fully verified by a sharp advance on Monday, with a strong market ruling. The dry weather and lighter stocks in the State than heretofore claimed caused the short interest to commence filling. The overland exports last year aggregate 249,838 ctls, against 92,760 ctls in 1885, and by sea, 723 648 ctls, against 185,297 ctls in 1885. The principal increase was to Great Britain and New York. To the former country they aggregate 391,151 ctls against 8103 ctls in 1885, and to New York, 187,005 ctls against 76,287 ctls in 1885.

Oats have made quite an advance the past week, with a strong closing. The improvement is due to lighter receipts, light stocks and a good demand. The bulk of the oats are inferior, which still further enhances the value of the more choice.

Choice corn continues firm, with a good demand ruling, but poorer grades are slow and in buyers' favor.

Rye and buckwheat are steady under a light stock. The demand is fair.

Feedstuffs.

The demand for bran and middlings is good for the season, but the supply is fully up to the consumption. Some millers are disposed to advance their prices.

Ground barley is very strong at a slight advance in sympathy with the higher price of barley. The demand, at the advance, is slow.

Feed carrots are without essential change.

Dealers continue to talk down hay, but the dry weather keeps holders firm, which forces buyers to pay well up to secure a choice quality owing to its relative scarcity. The market is quotable as follows: Alfalfa, $9.50@12; barley, $8@11; oats, $8@11; cow hay, $8@11.50; wheat, $10@13 ₩ ton.

Fruits.

Oranges, under lighter receipts, show more strength, but buyers are not disposed to bid up only to meet immediate wants, fearing heavy receipts. Shipments to the north are increasing, but for that trade only the very best good keepers are wanted.

Limes and lemons continue in excess of the demand, causing a low, unsatisfactory market.

Our market continues to be liberally supplied with Eastern apples, which keeps prices for California and Oregon down. The demand is good, with a firm, strong tone for the more choice.

Dried fruits are firm, with the stock well in hand. Receipts are only fair, with the supply to draw from reported light. Eastern advices report a strong, active market for all kinds.

Raisins are slower, but the tone to the market is firm for the more choice packed, but those not fully up to the standard are slow, with concessions necessary to effect sales.

Live-Stock.

The selling pressure, noted last week, is continued this week in beef cattle, due, so report says, chiefly to the dry weather. Mutton sheep are steady, but hogs are easy. The demand for all kinds is only moderate. In horses there is no change, with a light demand; milch cows are slow.

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 2½ to 3c for heavy and medium; hard dressed, 4 to 6c per lb; light, 2½ to 3c; dressed, 3½ to 4½c; soft hogs, live, 1¾ to 2¼c.

On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Potatoes are strong at an advance. The better market is due to light receipts and a good demand. Choice of all varieties continue, which causes buyers to bid up on top quotations to have their wants met. Sweet potatoes are in light supply.

Choice, hard, good-keeping onions are in light supply, with further advances not at all improbable at an early day. Onions of off quality and also cut onions favor buyers.

Cabbages and root vegetables are steady, as are mushrooms, marrowfat, squash and dried peppers.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1886.	1885.
On the way	207,785	152,365
In port, disengaged	70,011	129,950
In port, engaged	50,710	41,062
Totals	328,506	323,377

The above gives a carrying capacity, as follows: 1886, 525,609 short tons; 1885, 513,475 short tons; increase over last year, 11,134.

The demand for grass seed is slower, with prices favoring buyers.

Beans are steady, with a strong tone for the more choice under a fair demand for the East.

Honey continues in light stock, which causes dealers to look for still higher prices.

Wild game is unchanged, with the demand for ducks and geese slower.

In poultry there is no essential change to note; choice are wanted, and for which full prices are paid, but poor to fair are slow and easy.

San Francisco, Jan. 5, 1887.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Jan. 5, 1887.

Apples, bx com..	25	@	1 00	Raspberries ch..	—	@	—
do choice.....	1 25	@	1 75	Strawberries ch.	5 00	@	6 00
Bananas, bunch.	1 50	@	3 00	Watermelons 100	—	@	—
Blackberries, ch.	—	@	—	**DRIED FRUIT.**			
Canteloupes, cr.	—	@	—	Apples, sliced, lb	5	@	6½
Cherries blk.....	—	@	—	do evaporated.	11	@	12½
do Royal Ann..	—	@	—	do quartered..	4	@	5
Cherry plums...		@	—	Apricots.....	13	@	15
Crabapples.....	1 25	@	1 75	do evaporated	20	@	22
Cranberries	10 00	@	12 50	Blackberries....	9	@	11
Currants chest ..	—	@	—	Citron	28	@	30
Figs, bx	—	@	—	Dates.....	9	@	10
Grapes.....	1 00	@	2 00	Figs, pressed....	5	@	6
do Rose Peru.	—	@	—	Figs, loose.....	3	@	4
do Muscat....	—	@	—	Nectarines..	8	@	10
do Tokays....	—	@	—	do evaporated	16	@	18
Isabel.....	—	@	—	Peaches.....	8	@	10
Wine, Zinfandel	—	@	1 00	do pared.....	18	@	22
do Mission....	—	@	—	Pears, sliced....	5	@	6
Limes, Mex.....	4 50	@	6 —	do qrtd.....	4	@	5
do Cal. box ...	50	@	1 00	do evaporated	10	@	13
Lemons, Cal., bx	1 00	@	1 50	Plums, pitted..	9	@	10
do Sicily, box.	2 00	@	2 50	do unpitted...	3	@	4
do Australian.	—	@	—	Prunes.....	6	@	8
Nectarines box.	—	@	—	do French	8	@	10
Oranges, Com bx	1 25	@	1 75	Zante Currants..	8	@	—
do Cho'ce.....	2 00	@	2 50	**RAISINS.**			
do Novels.....	2 50	@	4 50	Dehesa Clus, fcy	2 65	@	—
do Panama....	—	@	—	Imperial Cabinet, fancy.....	1 90	@	—
Peaches, bx.....	—	@	—	Crown London Layers, fcy..	1 70	@	—
do bask	—	@	—	do Loose Muscatels, fancy	1 60	@	—
Crawfords, bx	—	@	—	do Loose Muscatels.....	1 50	@	—
do bskt..	—	@	—	Cal. Valencias..	1 50	@	—
do choice	—	@	—	do Layers	1 50	@	—
Pears bx	75	@	1 25	do Sultanas...	1 50	@	—
do choice.....	2 00	@	2 50	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.			
do Bartlett, bx		@	—	**VEGETABLES.**			
Persimmons, Jap, bx.....	1 00	@	1 50	Artichokes, doz.	—	@	—
Pineapples, doz.	4 00	@	5 00	Asparagus box..	—	@	—
Pomegranates. b	—	@	—	Beets, sk	1 00	@	—
Plums lb	—	@	—	Cabbage, 100 lbs.	50	@	75
Prunes bx.....	—	@	—	Carrots, sk.....	25	@	35
do Egg.....	—	@	—	do green box..		@	—
Quinces bx.....	—	@	—	Cauliflower, doz.	—	@	—
				Eggplant, ...bx	—	@	—
				Garlic, lb new..	—	@	—
				Green Corn, small box...	—	@	—
				do large box..	—	@	—
				Green Peas, lb..	—	@	—
				Lettuce, doz ...	10	@	—
				Lima Beans lb..	—	@	—
				Mushrooms, bx.	—	@	—
				do cultivated.	—	@	—
				Okra, dry, lb...	10	@	12½
				do green box..		@	—
				Parsnips, ctl....	1 50	@	—
				Peppers, dry lb..	10	@	—
				do green, bx..	40	@	60
				Pumpkins pr ton	12 00	@	15 00
				Squash, Marrow fat, ton.....	7 00	@	12 00
				do Summer bx	25	@	40
				String beans lb..	—	@	—
				Tomatoes box..	—	@	—
				Turnips ctl.....	75	@	1 00

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Jan. 5, 1887

BEANS AND PEAS.				Peanuts		4½@	—
Bayo, ctl.....	1 40	@	1 55	Filberts		10 @	11
Butter.....	1 25	@	1 55	**POTATOES.**			
Pea.....	1 60	@	1 70	Burbank.....	1 20	@	1 60
Red.....	1 25	@	1 40	Early Rose	75	@	1 00
Pink.....	1 25	@	1 40	Cuffey Cove.....	1 10	@	1 35
Large White....	1 60	@	—	Jersey Blues...	1 10	@	1 40
Small White....	1 65	@	1 70	Petaluma.....		@	—
Lima	2 00	@	2 45	Tomales.....	1 00	@	1 35
Std Peas, blk eye	1 00	@	1 05	River reds.....	70	@	1 00
do green.....	1 00	@	1 12½	Humboldt	—	@	—
do Niles.....	1 25	@	—	do Kidney.....	—	@	—
BROOM CORN.				Chile	—	@	—
Southern per ton	50	@	75	do Oregon....	1 15	@	1 40
Northern per ton	50	@	75	Peerless.....	1 10	@	1 50
CHICORY.				Salt Lake.....	—	@	—
California.....	4	@	4¼	Sweet	1½	@	2
German.....	6½	@	7	**POULTRY AND GAME.**			
DAIRY PRODUCE, ETC.				Hens, doz.....	6 00	@	7 50
BUTTER.				Roosters.....	6 00	@	7 50
Cal. fresh roll, lb.	20	@	25	Broilers	4 00	@	6 00
do Fancy brands	27½	@	30	Ducks, tame....	4 00	@	6 00
Pickle roll.....	15	@	18	do Mallard....	2 00	@	3 50
Firkin, new.....	15	@	18	do Sprig.....	1 00	@	1 50
Eastern.....	—	@	—	Geese, pair.....	1 00	@	2 00
CHEESE				do Goslings ...	—	@	—
Cheese, Cal., lb..	12½	@	15	Wild Gray, doz	3 00	@	—
Eastern style...	15	@	16	Turkeys, lb.....	13	@	15
EGGS.				do Dressed..	14	@	16
Cal., ranch, doz..	32½	@	35	Turkey Feathers, tail and wing..	10	@	20
do. store.....	25	@	30	Snipe, Eng., doz.	—	@	—
Ducks	—	@	—	do Common..	—	@	—
Oregon	—	@	—	Doves.....	75	@	85
Eastern.....	—	@	—	Quail.....	90	@	1 00
Utah.....	—	@	—	Rabbits.....	1 00	@	1 25
FEED.				Hare.....	1 50	@	2 00
Bran, ton.....	15 50	@	16 50	Venison	8	@	10
Cornmeal.....	26 00	@	27 00	**PROVISIONS.**			
Grd Barley ton.	24 00	@	26 00	Cal. Bacon, Heavy, lb.....	8½	@	9
Hay	9 00	@	14 00	Medium	8½	@	9
Middlings.....	19 50	@	22 00	Light	10½	@	11½
Oil Cake Meal.	26 50	@	28 50	Extra Light..	12	@	12½
Straw, bale.....	35	@	50	Lard.....	7	@	9½
FLOUR.				Cal. Smoked Beef	11½	@	12½
Extra, City Mills	4 52½	@	4 90	Hams, Cal.....	10	@	12½
do Co'untry Mills	4 35	@	4 77½	do Eastern..	13	@	14
Superfine.....	3 35	@	3 90	**SEEDS.**			
GRAIN, ETC.				Alfalfa.....	9	@	10
Barley, feed, ctl.	1 02½	@	1 12½	Canary.....	3½	@	4
do Brewing..	1 10	@	1 25	Clover red.....	12	@	13
Chevalier	1 45	@	1 60	White	17	@	18
do Coast...	90	@	1 45	Cotton	20	@	—
Buckwheat	1 00	@	1 20	Flaxseed	2¾	@	2½
Corn, White....	—	@	—	Hemp.....	4	@	4½
Yellow	1 05	@	1 10	Italian RyeGrass	25	@	—
Small Round.	1 10	@	1 15	Perennial.....	7	@	9
Nebraska	97½	@	1 05	Millet, German..	4½	@	5
Oats, new.....	—	@	—	do Common.		@	10
Choice feed.....	1 55	@	1 65	Mustard, white..	3	@	3½
do good.....	1 40	@	1 50	Brown.....	2 25	@	2 75
do fair.....	1 30	@	1 37½	Rape.....	1	@	1½
do black	1 40	@	1 55	Ky. Blue Grass..	11	@	13
do Oregon	1 30	@	1 60	2d quality.....	11	@	12
Rye.....	1 10	@	1 35	Sweet V. Grass.	To	@	—
Wheat milling. Gilt edged..	1 65	@	1 67½	Orchard.....	20	@	25
do choice.....	1 60	@	—	Red Top.....	15	@	—
do fair to good	1 55	@	—	Hungarian.....	8	@	10
Shipping choice	1 57½	@	1 60	Lawn.....	30	@	40
do good.....	1 55	@	1 56½	Mesquit.....	10	@	12
do fair.....	1 50	@	1 52½	Timothy.....	5½	@	—
HIDES.				**TALLOW**			
Dry.....	—	@	1¢	Crude, lb.....	1½	@	4
Wet salted.....	8	@	9½	Refined.....	6½	@	6½
HONEY, ETC.				**WOOL, ETC.**			
Beeswax, lb.....	20	@	22	SPRING—1886			
Honey in comb.	9	@	12	Humboldt and Mendocino ...	22	@	25
Honey in comb, fancy.....	12	@	13½	Sact'o valley....	17	@	20
Extracted, light.	4	@	4½	Free Mountain.	17	@	20
do dark.	3½	@	4¼	N'hern defective	—	@	—
HOPS.				S Joaquin short.	14	@	18
Oregon.....	20	@	27½	do long.....	—	@	—
California.....	20	@	27½	Cava'y & F'th'll.	—	@	—
ONIONS.				Oregon Eastern.	17	@	22
Pickling.....	—	@	—	do valley.....	23	@	25
Silverskin.....	75	@	1 75	Southern Coast.	13	@	17
NUTS—JOBBING.				FALL—1886			
Walnuts, Cal., lb	12½	@	13½	Southern, free..	17	@	20
do Chile.	—	@	—	do defective..	12½	@	19
Almonds, bd shl.	6	@	9	Northern, free..	20	@	23
Soft shell.....	15	@	19	do defective..	15	@	20
Brazil.....	10	@	11	Middle free.....	18	@	21
Pecans.....	9	@	11	do defective..	15	@	18

THE CITRUS FAIR IN CHICAGO.—The fruit from the Northern and Central California Citrus Fair at Sacramento reached Chicago in prime order, save that one fine young banana plant was frosted fatally in transit, and the display was formally opened on the last night of the old year. Frequent telegrams speak of the good attendance, and the interest and admiration shown by visitors, who include fruit merchants, well-known citizens and ladies.

CAMELLIA JAPONICA.—Superb plants charming to the vision are those camellias, in bud and open blossom, white, pink and variegated, which H. H. Berger & Co. have just received from Japan and are showing at 317 Washington street. The largest is a double white which stands about 15 feet high, including its matswathed ball of earth, and Mrs. B. values it at $200. They arrived in fine order and are well worth calling to look at.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.

DATE. Dec 30-Jan 5.	Portland. Rain	Temp	Wind	Weather	Red Bluff. Rain	Temp	Wind	Weather	Sacramento. Rain	Temp	Wind	Weather	S. Francisco. Rain	Temp	Wind	Weather	Los Angeles. Rain	Temp	Wind	Weather	San Diego Rain	Temp	Wind	Weather
Thursday	.49	41	NW	Cy.	.17	53	S	LR	.32	58	SE	Cy.	18	57	W	Cy.	.05	62	W	Fr	.06	61	N	Cy
Friday	.45	46	SE	Cy.	.10	57	N	Fr	.00	50	NW	Cl.	.00	58	N	Cl.	.00	75	SW	Cl.	.00	69	N	Cl.
Saturday	.72	51	S	Cy	.00	61	N	Cl.	.00	58	NW	Cl.	.00	59	N	Cl.	.00	74	E	Fr.	.00	72	E	Fr.
Sunday	.04	55	S	Fr	.00	56	NE	Cy.	.00	49	SW	Cy.	.00	54	N	Cy.	.00	73	Cm	Fr.	.00	68	NE	Fr.
Monday	.00	45	Cm	Cy	.00	60	N	Cy.	.00	49	E	Cl.	.00	54	Cm	Cl	.00	56	N	Cl.	.00	52	E	Fy.
Tuesday	.18	49	S	Cy.	.00	49	NE	Cy.	.00	48	Cm	Cy.	.00	57	N	Fr.	.00	73	E	Fr.	.00	67	Nw	Cl.
Wednesday	.	—	—	—	.00	65	N	Fr.	.00	49	E	Cl.	.00	64	NE	Cl.	.00	70	S	Cl.	.00	58	W	Cl.
Total	1.88				.27				.32				.18				.05				.06			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

[From RURAL PRESS of Jan. 1, 1887.]

Better Rates for Payment in Advance.

Wanted—20,000 New Subscribers in 1887.

We are desirous of furnishing the RURAL PRESS to subscribers at as low a price as possible without sacrifice to ourselves or lessening its good qualities as a clean, handsomely printed and valuable reading journal. While we cannot see our way to reduce the regular price below its present rate of $3 per year, we have determined to try the plan of offering greater inducements for all subscribers to pay as far in advance as possible, hoping thereby to greatly increase the number of our patrons, and, if possible, improve its issues from time to time.

Therefore, during a period of sixty days from date, to all subscribers paying $3 in advance we shall give thirteen and a half months (one year and six weeks) credit. For $1.50 in advance, six months and three weeks. Subscribers delinquent less than one year will be charged at the rate of $3 a year up to the time of paying, and will be allowed two months and an extra No. for each fifty cents paid in advance. In case any arrearages should occur beyond 12 months, $3.50 a year will be charged. All agents and clerks are required to adhere to these terms. No new names entered on the list without payment in advance.

All our premiums are offered under these terms.

It is not at present possible for any firm on this coast (if indeed anywhere else) to offer better rates than these, for any length of time, and do justice to themselves while furnishing as good a paper as the PACIFIC RURAL PRESS.

No. 252 Market St., S. F., Jan. 1, 1887.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED, the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price $1).....$0 25
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OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
R. G. HUSTON—Montana.
GEO. MCDOWELL—Fresno and Tulare Cos.
J. C. SWEENEY—Sonoma and Mendocino Cos.
O. F. BERGMAN—Yolo and Solano Cos.
M. S. PRIME—El Dorado and Placer Cos.

Semi-Annual Meeting.

The semi-annual meeting of the stockholders of the Grangers' C. B. A. will be held at the office of the association, corner of Tenth and K streets, Sacramento, on second Tuesday of January, 1887, at 10 o'clock A. M. A full attendance is desired.

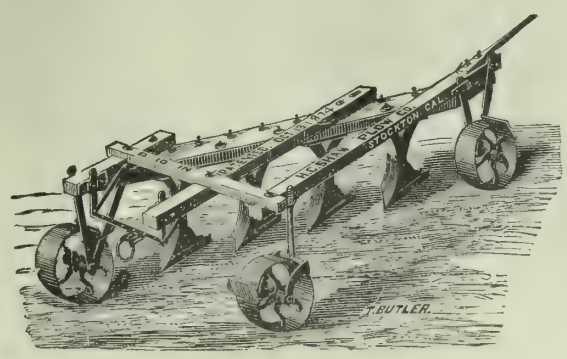
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DIVIDEND NOTICE.

The German Savings and Loan Society.

For the half year ending December 31, 1886, the Board of Directors of The German Savings and Loan Society has declared a dividend at the rate of four and thirty-two one-hundredths (4 32-100) per cent per annum on term deposits and three and sixty one-hundredths (3 60-100) per cent per annum on ordinary deposits, payable on and after the 3d day of January, 1887. By order.

GEO. LETTE, Secretary.

DIVIDEND NOTICE.

SAN FRANCISCO SAVINGS UNION,

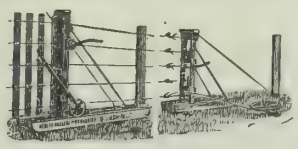
532 California St., cor. Webb.

For the half year ending with 31st December, 1886, a dividend has been declared at the rate of four and one-half (4½) per cent per annum on term deposits, and three and three-fourths (3¾) per cent per annum on ordinary deposits, free of taxes, payable on and after Monday d January, 1887. LOVELL WHITE, Cashier.

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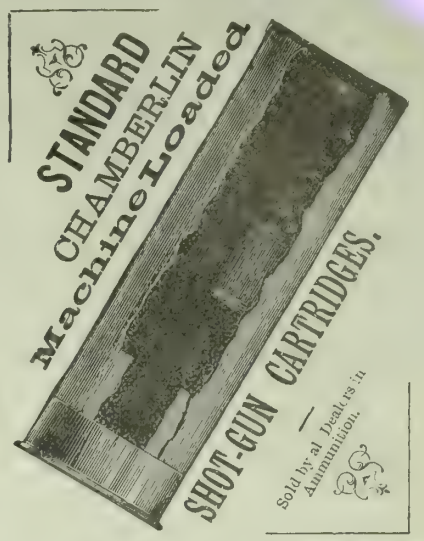
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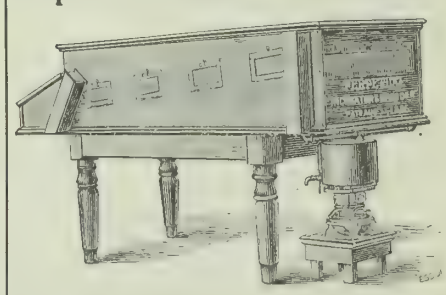
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The leading varieties of Europe, highly recommended for beauty and quality of the nuts, fertility and hardiness of the kinds.

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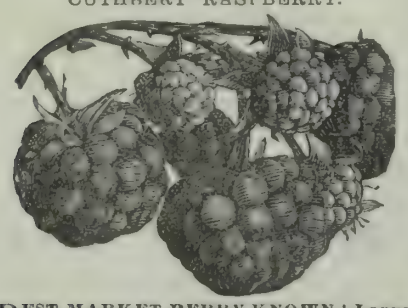
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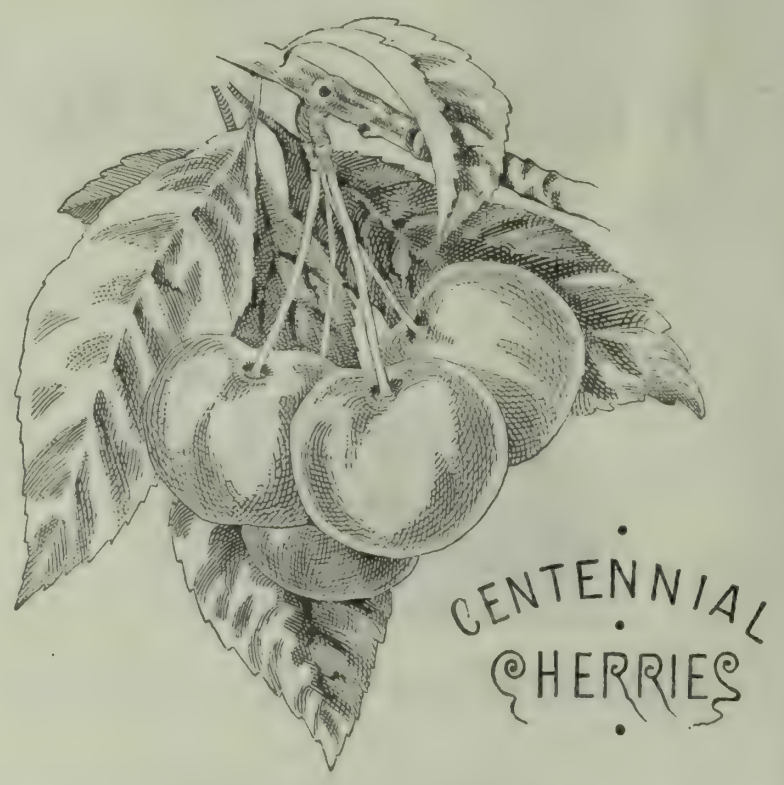
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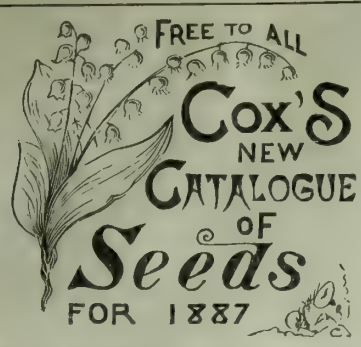
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SEEDS FOR THE GARDEN, FARM & FIELD
Write for their ILLUSTRATED CATALOGUE. Address:
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FOR SALE.
1,000,000 GRAPE CUTTINGS
At $3 per M.
Muscatel, Muscat, Sultana, Flame Tokay and Emperor; also Rooted Vines at $12 per M.
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ALFALFA SEED. In carload or smaller lots. Fresh, clean, and free of foul seed. Also all varieties of Grass, Clover, Garden, Flower, and Field Seeds. Send for Catalogue and special quotations on large orders. W. R. STRONG & CO., Sacramento, Cal.

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TREES! TREES! TREES!
BY THE DOZEN, 100, 1000, or 100,000.

Our Stock this Season Cannot be Excelled on the Coast,

Neither in quantity, quality, varieties, size of trees, nor for health and vigor of same. We offer $1 each for every scale bug found on our nursery trees.

OUR PRICES ARE VERY LOW THIS YEAR.

Send for our new and beautiful lithograph-cover Tree and Seed Catalogue. See in it description o

OUR NEW TRAGADA PRUNE,

The very earliest, good shipping Plum. There are fortunes in it. Also our new and fancy

JAPANESE ORANGES, CAMPHOR TREES, TEA PLANTS,

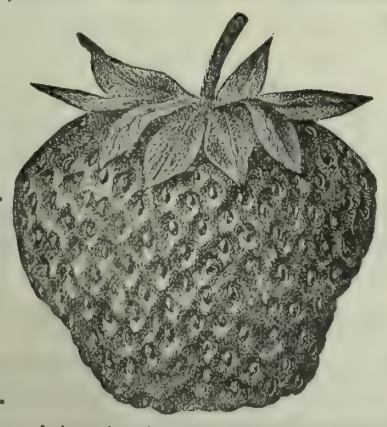
And other novelties. Our Seed Store carries an immense stock of Seeds of every variety at bottom figures, both wholesale and retail.

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60,000 OLIVE TREES!

Nut Trees, Apples, Pears, Plums, Prunes.
Cherries, Peaches, Apricots, Nectarines, Figs.



Quinces, Loquats, Guavas, Medlars, Persimmons, Pomegranates, Mulberries, Small Fruits, Rhubarb, Asparagus, Ornamental Trees, Roses, Etc.

Santa Rosa Nurseries are now and always have been **FREE FROM SCALE,** and the unusual care which has always been taken to have everything that leaves our nurseries **true to name,** and in the best possible condition to grow, has given them a reputation for reliability which has caused our sales to **more than double every year** for ten years. ☞ELEGANT CATALOGUE FREE.

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VALUABLE AND NEW
PEACHES, NECTARINES, APRICOTS, PRUNES, ALMONDS, FIGS, OLIVES, POMEGRANATES, MULBERRIES,

Japan Fruits, Grapes, Texas Umbrella Trees, Roses, Oleanders, Hedge Plants & Ornamental Plants.

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Præparturiens, Macrocarpa, Mayette, and Chaberte Walnuts, Chestnuts, Persimmons, Mulberries, Olives, Oranges, Lemons, Pears, Apples, Peaches, Apricots, Cherries, etc. Plums and Prunes on Myrobolan Stock, Grapevines, Ornamental Trees, Shrubs, Palms, Magnolias, Clematis, New Roses and Hothouse Plants.

TRY THE PERSIAN MULBERRY.

NO SCALE—I wish particularly to call the attention of Fruit-growers to this fact. I have repeatedly had my nursery examined by experts, and upon no occasion have they found any scale or any indication of scale. The nursery is isolated from orchards, both old and new, and as I take every precaution in importing new varieties to get only clean stock, I feel perfectly warranted in guaranteeing every tree sold by me free from scale and other pests that are proving so disastrous to the fruit interests of the State. SEND FOR CATALOGUE.

E. C. CLOWES, Proprietor, Successor to W. B. WEST.

STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

SHINN'S NURSERIES
NILES, CAL.

We offer to the public our usual excellent and well-assorted stock of

FRUIT, NUT & SHADE TREES,
SHRUBS AND PLANTS.

ALL OUR TREES ARE GUARANTEED FREE FROM SCALE, and are grown without irrigation on new land distant from old orchards.

☞We would call especial attention to our "Bulletin" Smyrna Fig, imported by us direct from the Levant and now proved, in numerous instances of fruiting, to be the

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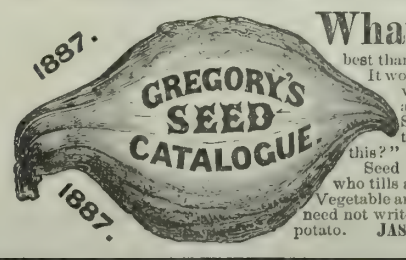
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OR ANYTHING IN THE NURSERY LINE, without first writing for our valuable **FREE** Catalogue, the **BEST** we ever issued, containing the Rarest New and Choicest Old.
21 LARGE GREENHOUSES. 33d YEAR. 700 ACRES.
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Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. JAS. J. H. GREGORY, Seed Grower, Marblehead, Mass.

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For 1886 and 1887.
FRESH STOCK OF
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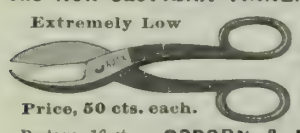
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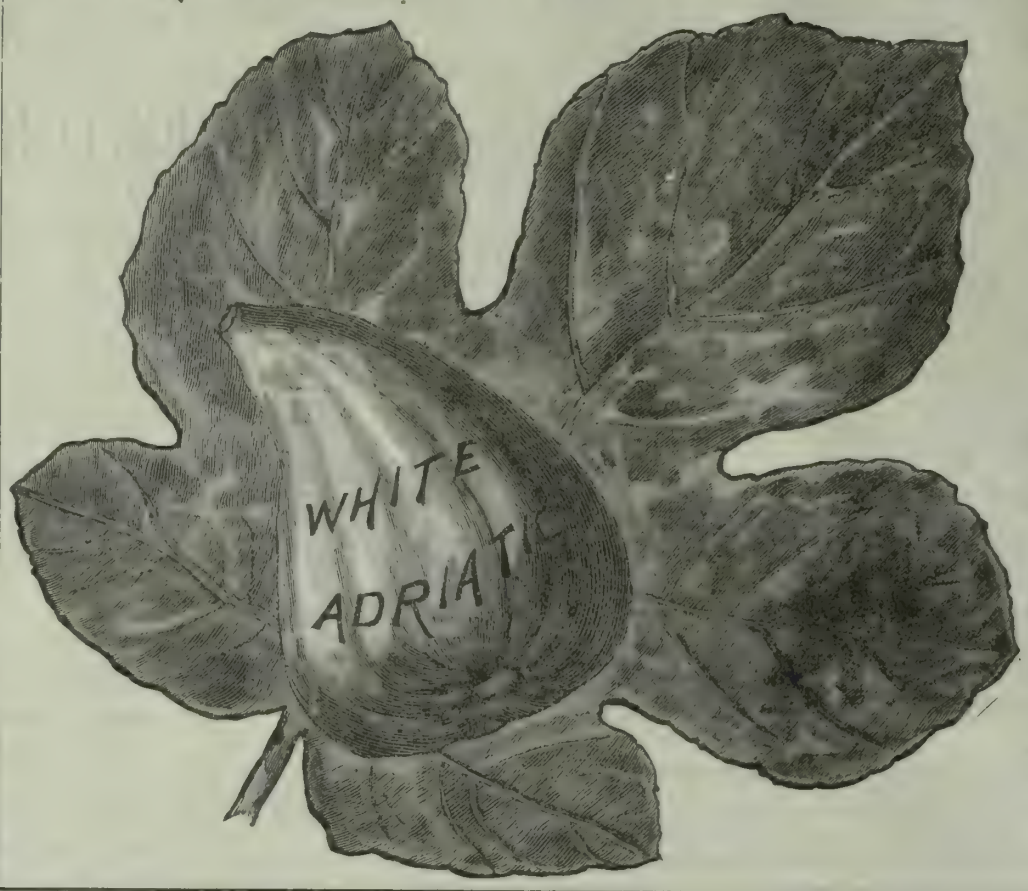
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—THE—

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The only Fig that should be planted for Drying.

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APPLES,
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ORANGES,
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Shade Trees and Ornamental Shrubs,
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A complete assortment of Rooted Grapes and Cuttings. All trees warranted free from Scale or Aphi

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Time and Method of Planting!

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Full Directions on the Growth and Culture of RAMIE Free on Application.

FIELD, GARDEN, FLOWER AND TREE

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FRESH AND RELIABLE, AT LOWEST RATES.

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JAPAN PERSIMMON SEED AND TREES.

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Fruit Trees, Roses, Ornamental Shrubs and Shade Trees

ALL WITH GOOD FIBROUS ROOTS.

Not Irrigated! Free from Disease.

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All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.

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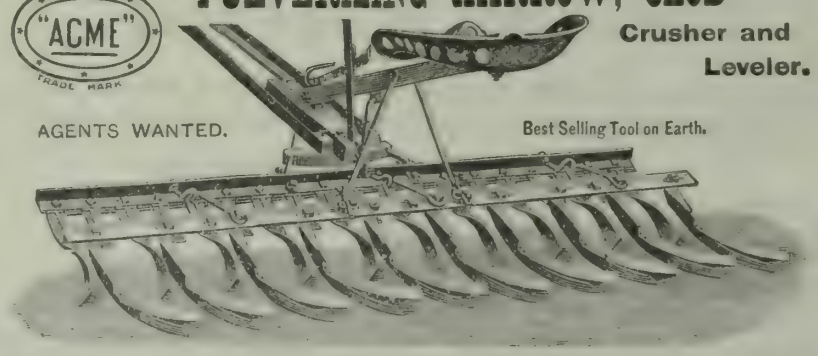
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We make a variety of sizes from 3 to 15 feet wide.

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THE "ACME" PULVERIZING HARROW

Is the most Thorough Implement invented for the Cultivation of the soil. It will save its cost many times in a season.

READ WHAT A PROMINENT COLUSA RANCHER SAYS OF IT:

COLUSA, April 4, 1886.

ARTHUR BULL, ESQ.—DEAR SIR: I have given the "Acme" Pulverizing Harrow a thorough trial and find it far superior to any other Harrow I have ever used, not only for the Orchard and Vineyard, but in the Grain Field. It does the work fully twice as quick, leaving the ground in much better tilth. Dead weeds or stubble are no drawbacks to it. It goes along without any stoppages, and clears itself. It ought to be used by all grain raisers.

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CHOICE FLOWER SEEDS AT WHOLESALE PRICES.

FOR 30c. In Postage Stamps or money, we will send by mail, prepaid, 13 PACKETS (one pkt. each) of the following rare and valuable flower Seeds—ASTERS, new double dwarf boquet, extra fine mixed; BALSAMS (Camellia flowered), very large double, rich colors. DIANTHUS (Double Diadem Pink), rich velvety colors; GIANT GERMAN PANSIES from the Hartz Mountains, Germany, the finest, largest, most beautiful in the world; PETUNIA, large-flowering all colors, striped, blotched; PORTULACCA (D'ble Rose flowered), nearly all double flowers; PHLOX DRUMMONDII, bright colors; VERBENA, 12 cols mixed; ZINNIA (Pompone), extra large d'ble; one fine Ornamental Grass; one splendid Climbing Plant; one beautiful Everlasting Flower—in all, 13 full size packets for 30c., or two for 50c. Directions for cultivating on each. Our beautiful illus. 88-pp. catalogue accompanies each order. We grow these Seeds by the pound, by the bushel, and by the acre. Address SAMUEL WILSON, MECHANICSVILLE Bucks Co., Pa.

PACIFIC RURAL PRESS

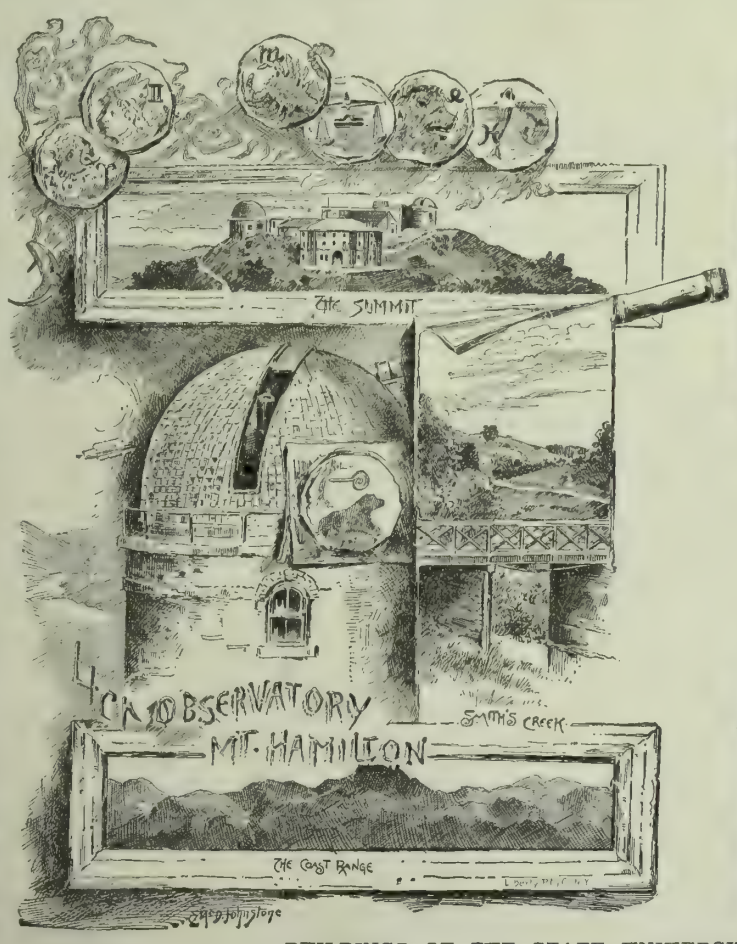
ANNUAL AGRICULTURAL REVIEW—TWENTY PAGES.

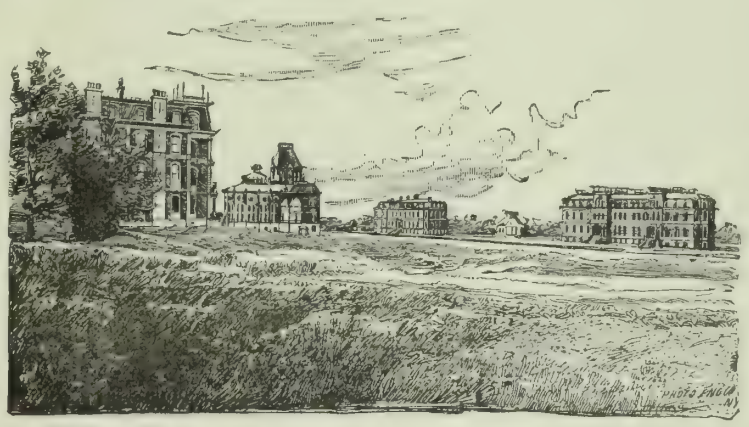
Vol. XXXIII.—No. 3.] SAN FRANCISCO, SATURDAY, JANUARY 15, 1887. { $3 a Year, in Advance / Single Copies, 10 Cts.

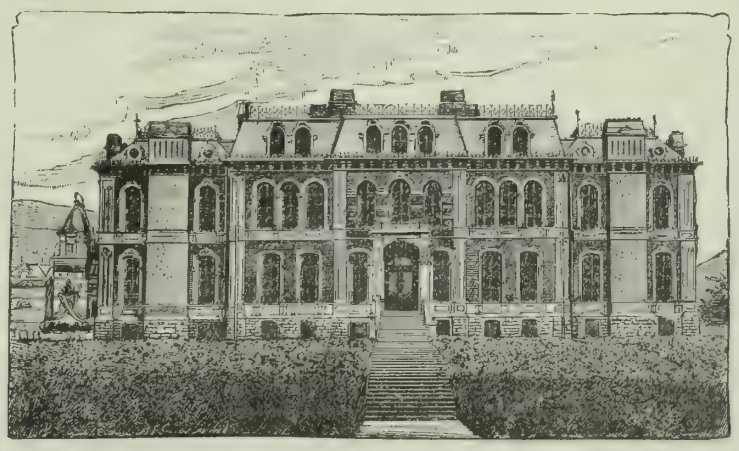
The University.

Several recent occurrences make timely the sketches upon this page. It is probably generally known that, upon its completion, the Lick Observatory will become the Lick Astronomical Department of the University of California. The lenses for the great refracting telescope were safely brought across the continent and are now in the safe at Mt. Hamilton; the great iron dome which will house the instrument is approaching completion in this city; the other portions needed for the erection of the telescope are well in hand by different expert manufacturers, and during the coming summer the observatory will be placed in the hands of the Regents of the University.

Another incident which draws popular attention to the philanthropic deeds of Mr. Lick is his final sepulcher in the foundation of the great telescope, which is described at length upon another page of this issue. It is fitting indeed that the memory of Mr. Lick should be honored; it is appropriate that his resting-place should be in the institution which he has established.







BUILDINGS OF THE STATE UNIVERSITY AT MT. HAMILTON AND BERKELEY.

Our engravings are intended to emphasize the unity of the institutions of which sketches are given, and the fact that they are the property of the people of California.

It is a matter for general congratulation that this crowning educational establishment of the State is now in excellent working condition, and that it never has been so strong in the popular esteem and heart as now. These facts signify that its course is onward and its spirit in harmony with the progressive spirit of the people. Judged by its faculty and pupils, by the tone of the comments of press and people, and by the recognition of its efforts to incite all to fuller knowledge in all the departments of thought and labor, it is clearly enjoying popular confidence and support. President Holden has accomplished much both in the internal and external condition of the institution during the year of his incumbency.

There is apparent now a general disposition to advance the University as an institution worthy of generous support. Of course, in our line of thought, we naturally look first at the advancement of its provisions for technical and industrial education. We know from our acquaintance with those engaged in these branches of the University work that they are honestly and diligently endeavoring to win esteem by meriting it, through devotion to their tasks and constant acquisition and improvement in their methods and materials. They believe and labor earnestly for the extension of sound practical training as the basis of true success and prosperity. No doubt the Legislature now in session will be called upon to aid in the advancement of this work, and we are glad to see that Governor Bartlett in his inaugural made this reference to it:

> The efforts already being made by the people for establishing manual and technical schools should also be liberally encouraged. The technical departments of the University should be made as valuable as possible to the people throughout the State. It would be well to offer special inducements to public school students to arouse a greater interest in the industrial arts and sciences.
>
> The vast agricultural, manufacturing and mining industries of the State need the most enlightened treatment, in order to compete in the markets of the world. It is but just to those who are to conduct these interests in the future that they should be prepared in as full a measure as possible to meet such great responsibilities. I would suggest, therefore, that your Committee on Education should make a thorough investigation as to the wants of the people in the way of better industrial training, and the best way of meeting those wants.

With its excellent intellectual equipment and the disposition to employ its best efforts in the public service; with its fine establishment at Berkeley and its allied institutions in San Francisco; with the magnificent institution on Mt. Hamilton soon to be added, and with such additional facilities as it is expected the present Legislature will provide, the University of California is indeed worthy of its name, and will prove a potent factor in the true advancement of our favored people.

Citrus Fair at San Jose.—The fair to be opened in San Jose, Feb. 7th, under the auspices of the Horticultural Hall Association, gives promise of being a great success. Hon. Cyrus Jones and Capt. Frank Dunn, who were commissioned to canvass the localities where citrus fruits are raised, have visited Los Gatos and Saratoga and the region round about, and report that more orange and lemon trees are planted and in bearing than they had any idea of, and offers of contributions to the fair were liberally made. At a meeting of the directors of the association last Saturday, it was decided to call the exhibition the Central California Citrus Fair, and to invite displays from the counties of Santa Cruz, San Benito, Monterey, Stanislaus, Merced, Fresno, Contra Costa, San Mateo and Alameda.

Our Produce Market.—We are giving especial attention to our market reports for California produce, and desire to make them as complete and trustworthy as possible, for we fully appreciate the importance of such information to our readers. We shall be very glad to have suggestions from our readers as to any manner in which the market reports can be improved or made to serve producers' needs better.

Double Callas.

The cut of Colonel Woodham's double calla, which appeared in the Rural Press last week, has interested our readers in various parts of the State. Wm. Boots says they have noticed several at Milpitas, though only when the nights and mornings have been frosty, and sends us by express a very large and handsome specimen. Mrs. Viola K. Dunne also gives us tangible evidence that such a blossom has opened at San Felipe. Mrs. LucyE. Wiester, of S. F., writes that she has twice seen the like novelty in Flora's kingdom—once about 12 and then two years ago. In 1885, near Westminster, Los Angeles Co., C. G. Scott saw two as perfect as the one pictured; and Flora M. Kimball says the double calla is a familiar sight to her, in both her own and neighbors' gardens at National City, San Diego county. She writes: "When the first one was seen, several years ago, it was a matter of curiosity, but now we consider them quite 'orthodox.'" A Fresno correspondent, formerly resident in New Zealand, remembers a brother marking just such a flower, with the intention of raising seedlings which might develop an increased tendency to duplication, but the blossom failed to produce seed. Among the communications thus elicited came a copy of our own paragraph, clipped from the paper, with the curt remark pencilled on the margin, "Have been described years ago, *twice*, in your columns," which goes to show how carefully some of our patrons store away in memory the goods things served up, through the seasons, in the columns of the Rural Press.

European Onions in S. F.—A novel importation to be seen at L. G. Sresovich's last week was 500 crates of Spanish onions, which had come directly from Barcelona to New York, and thence by rail to this city. Their average size was large, some weighing two and one-half pounds, and they arrived in remarkably good order, considering the distance traveled. They were offered in lots at $2.25 per 100 pounds, while the best California onions were selling at $1.80 or $1.85.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Shasta County Notes.

EDITORS PRESS:—Away up the valley of the Sacramento among the wooded hills and dales of Shasta county, there is a little cottage where the RURAL PRESS is a regular and always welcome visitor—welcome not only because it is a live paper intelligently conducted in the farmer's interest, which lies at the basis of all commercial prosperity, but also and equally because of its clean and healthy moral tone. We congratulate you on the maintenance of a secular paper whose aims and purposes are such as to make it an inspiration to all that is good. May you receive a higher reward than any men can bestow.

Although we live almost in the shadow of "awful Shasta's icy shrine," yet the orange and the olive, the grape, fig, almond, peach, and all semi-tropical fruits flourish here, so far as introduced, luxuriantly. And as we have at least four times greater annual rainfall here than in Southern California, we dispense with irrigation, and very gladly also with the chills and fever which generally keep it company. The pine and the palm, the apple and the orange, here grow side by side, and roses are in perpetual bloom in sight of mountains whose summits are always white with snow. I do not wonder that the "poet of the Sierras," Joaquin Miller, has purchased a section of land, in Shasta county, on which to make himself a home and is extravagant in its praise. This, of all the places I have seen, (and I have been 10 years a commercial traveler) is best fitted to be a poet's home, and best of all, its beauty is only matched by its healthfulness.

Our county takes its name from a noted mountain in Siskiyou county, which joins us on the north, and though this mountain seems very near on account of its great size (to Redding), it is in reality about 75 miles away. On clear days it can be distinctly seen with the naked eye 200 miles down the valley; it furnishes an unmistakable landmark and beacon to the traveler going northward. Even dull and prosy souls, in the presence of this magnificent emblem of power and grandeur, become poetic and almost reverential, and we all say beholding it: "How small are we and how brief our day compared with that of many of the things by which we are surrounded." Towering 2000 feet above the line of perpetual snow, clad in robes of unchanging white, Mount Shasta stands in silent majesty, like some giant sentinel watching the ages as they softly pass, and the generations of men that come and go with all their hopes and fears and joys and sorrows and passions and pains; that rise and fall and bloom and fade even as do the grass and the flowers in the valleys outstretched at its feet. Viewing this monument of Omnipotence, who can fail to be impressed with a sense of the power and majesty of Him who made it such? "The strength of the hills is His." We shall soon pass away, but this magnificent token of God's almighty power shall remain, and the men and women of the generations which succeed us shall gaze upon it with admiration and awe until earth and time shall be no more.

Raisin Interest.

But to speak of things practically (and I am quite an old settler now, for this is my third year here), as this country is proving to be so well adapted to fruit-raising, and especially to the growth of the vine, it seems to me that the culture of the raisin grape in the near future will claim a greatly increased share of attention and prove immensely profitable. In this branch of the fruit industry the fear of overproduction or of overstocking the market need not trouble the grower, since we produce in the United States only about one-tenth of the raisins we consume, and it is certain that the California product is claiming more attention and meeting with greater favor every year in Eastern markets. And this growth of demand, with improved methods of handling and careful grading and packing, is sure to continue. Our Shasta county raisins are said, by actual test, to contain the highest percentage of sugar of any yet produced in the State, and the atmosphere here is peculiarly suited to "sun-drying," which, however, always in my opinion should be supplemented by an evaporator, to fall back on when the sun does not serve.

North and South.

We, in Northern California, regret very much to notice an envious spirit on the part of some of our Southern California fruitmen. We do not wish to detract one iota from the fame they have justly earned, but we ask "the patronage of a fair opportunity." We ask to stand on and be judged by our own merits, and we claim that what has been done in Southern California can be repeated here, and time will prove we are right in this conclusion! As our section is one of the newest brought permanently forward to public notice, so our lands are the cheapest, and the opportunity for settlers with limited means to come in and grow up with the country is the best. Considering these things, we are much gratified by the exhibit we made of Shasta county products at the recent Citrus Fair, in Sacramento—small in quantity, but excellent in quality. Neither shall we be forgotten at the California Citrus exhibit now being made in Chicago, since our "landman," Mr. D. N. Honn—who is the right man in the right place—has gone there to represent us.

In conclusion, permit us to say that if you, or any of your readers, see fit to come this way to "look," to "invest" or to "settle," we promise you a courteous welcome in Redding, which is one of the most thriving and prosperous towns in California to-day, and will freely give you all the information in our power concerning the country where we have taken up our abode. A. M. GOODNOUGH.

Redding, Shasta Co.

Tuolumne County.

The wintry rain falls free again,
A nectar draught, for hill and plain!
Bright emerald green will soon appear,
On barren soil long brown and sere.

EDITORS PRESS:—A few days ago prayers were sent up for rain. Now the rains have come in gentle showers, at night, so that the labors of the day have not been interfered with. Nothing could be more favorable to growth than the warmth of these gentle rains. Stock of all descriptions has not suffered this fall, owing to the fine feed left over since last spring. We have had some cold weather, but it was free from storm. No high winds attend the present wet spell—out of doors is truly healthy and delightful. Among these foothills, plowing was only delayed one day. Farmers cannot complain for lack of opportunity to put in extra acres for hay and grain. Summer-fallowed land is showing a good growth. With no great setback there seems no reason why next harvest should not be an exceptionally good one, and largely in excess of the last few years.

The fruit interest will also recover from the blight of drought and grasshoppers. The past two years have been very discouraging for our foothill orchardists. But they show a bravery in persevering against every obstacle. They are bound to win at last, for Dame Nature will get tired of crippling enterprises well directed.

For all the influx of immigrants, it is singular so few seek the foothill region. Only now and again a stray wanderer settles among us, and why is it thus? The great tide of humanity ebbs and flows toward Los Angeles and surrounding country. Capital is invested without being assured of the fitness of things. Many citizens of Tuolumne county settled and bought land in and around Pasadena. I learned to-night of one who cleared $10,000 in a few months by speculation, buying and selling land, making many of our staid citizens believe that they are only wasting their time by laboring on ranches for a nominal sum above a living, and often not that. Do the prices now paid for land in these favored localities warrant such enormous sums for a few acres? The same amount would purchase a whole domain in these foothills, and land, too, which would outyield their high-priced land, if the same cultivation were followed up as is bestowed upon lands in orange and wine localities. By and-by our foothills will be rated for what they are worth. Even now our fruits command a ready sale and top prices in San Francisco. Their flavor is unsurpassed, so far as table grapes and peaches are concerned. The higher altitudes of the county produce an apple superior to any grown upon a lower level. Why should capital invest in a $500-acre, when it might procure 100 acres of productive land for the same amount? Only one excuse may be given, and that is the lack of transportation. Railroads have not found us yet, but that is a mere matter of time. Capital invested in fruits and other horticultural products would encourage capital to invest in rail facilties. When the great valleys become crowded, and maybe investments unprofitable, our region will be sought after for variety of products, and excellence in flavor and richness of fruits for table or distilling, or even for exporting. It is singular how some barren spots will rise in value when a corporate body purchases at a minimum value, surveys, advertises, and makes maps. There are always men ready for change, and many good families seeking a home, who pay a large price for a very small piece of ground, taking years of hard toil and labor to meet expenses and improve their purchase. No such conditions exist among these foothills. Variety of products and a vegetable market for current expenses after a few months' labor.

From all I have seen of valley lands and homes for the average husbandman, commend me to the valleys of the Sierras' foothills, where genial winds blow and fogs rarely intrude; where fungus rarely grows from damp atmospheres; where water cool quenches thirst, and nature adorned with mountains grand greet the eye, and shut out the cold of the North and the fogs of the South. We have a golden-hued sky above and gold-lined soil beneath our feet, and would invite the seekers of a quiet rural home to visit the thermal belt before locating.

JOHN TAYLOR.

Chinese Camp, Tuolumne Co.

Contra Costa County.

EDITORS PRESS:—Without going into detail, allow me to express myself as greatly pleased with this section of country. The chain of valleys from Livermore to Martinez are surprisingly rich in soil. It seems to me that the capability of this region has never been fairly tested nor appreciated. The climate is fine and healthy; the scenery very beautiful. There is more flat land than one would naturally expect to see among the hills near the foot of Diablo. Lovely little valleys, numerous farms and villages.

The price of land is exceedingly low, compared with that of several counties where the advantages are really inferior. There will some day be a boom here as sure as fate, which will treble in value this whole region. I have seen first and last sufficient evidence of the capacity of soil, mildness of climate, etc., to convince me that the time is near when this section will attract to itself thousands of searchers for beautiful homes where the grape, the olive, the palm, the orange and fig will grow to great perfection and with a certainty not to be exceeded in California.

I hope to take some special notes at my convenience, and you may hear from me again.

Pacheco. S. H. HERRING.

POULTRY YARD.

The Pablo Poultry Yards.

EDITORS PRESS:—Among all rural pursuits there is none more fascinating than the breeding and management of thoroughbred poultry; nor is there any single branch of agriculture more important.

A few years ago it was said that there were no thoroughbred fowls except the Black Spanish in Southern California; but the magic wand of capital and enterprise touched her, and from a sleep of centuries she has awakened to life, luxury and beauty, and in all the wide world there is no fairer land nor any which presents as bright a prospect for the future in poultry raising than does the Golden State.

Mr. Paul Bancroft, whose model establishment, the Pablo poultry yards, occupies a prominent place on Fifth street, determined that his yards should not only be the best on the coast, but equal to the best in the country, sent his manager East to select breeding pens of the following varieties, which were carefully selected after a visit to a majority of the best yards in the East. Let us step into the Pablo poultry yards and look around.

Wyandottes—a genuine American "invention," and the most popular of all breeds. Here is a pen of the Preston strain; there is another. Yes, they are light in color, for many prefer them so. Now, if you wish to see darker ones, come this way.

"Magnificent!" Yes, they are fine specimens of Hawkins' strain, and fanciers of the darker Wyandotte pronounce them royal birds. "What will that cock score?" Wait for the next show. He is my ideal of a perfect bird, and undoubtedly without a rival on this coast. The Wyandotte is not only beautiful, but a good all-around fowl for fancier and farmer, being a good layer, matures early, has yellow legs and skin, and is hardy and of a mild disposition, a good forager if let run, and contented in confinement. They are not high-flyers and could be kept in bounds by a four-foot fence.

Plymouth Rocks—Another American breed, another grand triumph of the breeder's art. The American Dominique and the Black Java, both birds of sterling quality, were happily united in the production of so justly popular a breed as the Plymouth Rocks have been and will long continue to be. They are Hawkins' strain.

White Dorkings (Croad's strain)—The Dorking is the most popular fowl in England, and has its champions in this country as well. Before England became a nation the Dorking was known. It takes us back to the ancient city of Rome. It is the most regal of the royal families. The White Dorking is bred with the rose comb, others (the silver gray and the colored) either with rose or single comb, although the greater number have the rose comb. As a table fowl they cannot be excelled, and they are good brooders as well as layers. Their peculiar shape and the fifth toe enables even a novice to distinguish them at a glance.

Silver Spangled Hamburgs (Schofield's strain)—"Speckled beauties" is applicable to fowls as well as to fish (trout); and it is easily understood how the handsome plumage of the Wyandotte is obtained when we know that this handsome fowl was a prominent actor in the drama. As layers they (the Hamburgs) stand in the front rank, and while their beauty recommends them to the artist, their finely flavored flesh is warmly praised by the epicure.

Rose Comb White Leghorns (Bonney's strain)—Differ from the ordinary White Leghorn only in comb, but are preferred by many who admire a rose comb on such a bird, and also because a rose comb is less liable to injury from frost and other occurrences.

Brown Leghorns (Williams and Croffut's strain)—These Italian birds, so well and favorably known to all who keep poultry, are a strange contradiction of the accepted theory that the climate of their native country (and all similar climates) produces an habitual languor or inactivity; for of all the breeds of fowls they are the most active and tireless, seldom still during the whole day, and shelling out an astonishing number of eggs in a year. There is no difference in the laying qualities of the white, the black and the brown, and all are non-setters.

Black Leghorns (introduced in this country by Mr. Watson in 1871)—They have the same characteristics as their brothers and sisters, the whites and the browns, but are very scarce at present.

Houdans (Todd's strain)—No wonder you admire them, for they are the finest of the fine, and fear nothing on the show bench. They are very sociable, and "Dick," here, is the most affectionate fellow I ever saw. Although a native of France, it does not require a French cook to tell us that the Houdan is one of the most delicately flavored of all domestic fowls. They are prolific layers, and mature early.

Light Brahmas (Felch & Williams strains)—These pens are fine and cannot be equaled in Southern California; now let me show you another pen of them. They are direct from the yards of Mr. Felch, and I think you will agree that Mr. Felch is justly proud of them when he says they are among his best. Of the hundreds of fanciers who have seen these Light Brahmas, none have failed to warmly praise them. It is well known that a multitude of fanciers regard the Light Brahma as the handsomest breed named in the "Standard of Excellence;" and more money changes hands each year for fine specimens than for birds of any other variety.

Langshams (Croad's Strain)—Major Croad's importation from China in 1872 has proved an important event, as the Langsham club and their friends will attest. Their glossy brown eggs are rich, and they give them to us in liberal quantity. Can you imagine a more beautiful sight than either of these yards of Langshams with their metallic greenish-black plumage and bright red combs, ear lobes and wattles, their gentle, graceful carriage and symmetrical form? Their size, small bones and juicy, tender flesh, recommend them for the table.

Bantams—These little pets please the children, and have their admirers among the "children of a larger growth." They are pretty, affectionate and hardy, and will lay a greater weight of eggs for the amount of food consumed than many of the larger varieties.

Bronze Turkeys—These noble specimens make one feel that Christmas and Thanksgiving Day should come weekly instead of annually; yet it would seem like treason to plot the death of those handsome birds. See that gobbler parading before his harem; is he not justly proud of his flock (and himself)? And look in the next yard—there is another with fan spread and feathers raised. He is taking a sun-bath and airing his vanity at the same time. A fine male specimen of this breed will at maturity fatten to weigh 40 pounds. Is it economy for farmers to breed mongrels?

Pekin Ducks—Yes, they are noisy, but 'tis music to the ear of a breeder or poultryman. Duck-raising in this country is in its infancy, yet there are many at the business, and if properly managed it is very profitable. The Pekin duck is a general favorite owing to its large size, good laying qualities and beauty of color and form. It is not generally known that these ducks can be successfully raised without water except for drinking, but such is the fact.

Guineas—They are scarce in Southern California, but poultry-raisers, who know that they keep away rats, scare off hawks and are the best of sentinels, will have them at any cost.

Common Fowls—Yes, they are kept on Mr. Bancroft's Helix farms in Spring Valley, where we also send the surplus fancy stock and where all the feed—grain and green—is raised, and where is also kept a fine stock of thoroughbred horses and cattle. "Is there plenty of room for large stock?" Six hundred acres and every convenience.

Yes, we have incubators in constant operation, and will shortly give you an article on artificial incubation. C. VON CULIN,

Manager Pablo Poultry Yards.

San Diego, Cal.

ARBORICULTURE.

Late or Early Planting.

The question when trees or shrubbery is most profitably transplanted will, of course, be answered differently in different countries. Much depends upon the season or seasons; much, again, upon the quality of the stock and also of the quality of soil in which the trees are to be planted. The general idea is that evergreens should be planted late, indeed as late as possible in the spring. The reason for this, we are told, is that evergreens make their fine, new roots just at that period, and that if they were dry before the trees would not sustain themselves until spring.

This is partly right and partly wrong. Evergreens, just like other trees, begin to make root as soon as they are cut, be that in the fall or in the spring, provided only they have a chance to do so. As evergreens are growing, or at least circulating sap all the year round, it also follows that their endeavors to make new roots are unceasing, if the location is favorable. Our ordinary winters are hardly ever severe enough to stop the growth of common evergreen trees, even if it is considerably retarded. If transplanted to light, dry, and warm soil, new roots begin to form immediately. Every nurseryman knows that evergreens "bailed" will root through the sack, even in December and January—not waiting for the advent of spring and warm weather. But if the same evergreen, instead of being assigned a suitable place at once, is put in cold, heavy soil, undrained and uncongenial, the chances are that the trees will suffer

and not be able to produce new roots until the warm weather makes the ground dryer and warmer.

But what holds good in regard to evergreens is also applicable to deciduous trees and cuttings. The very moment a fruit tree is dug and again planted it commences first to heal the wounds made, and with the first advent of warm weather the new roots begin to shoot out. It is, therefore, very desirable that fruit and deciduous trees should be planted as soon after being cut as possible, provided the ground is suitably warm and drained. If, again, the soil is cold and wet, the trees are prevented from healing the wounds, and it is much better to delay the planting in such soils until warmer weather sets in or the ground becomes dryer, else the roots may decay and mold and the trees may die. But the great question is whether such soils ever are suitable for fruit trees or whether they had not better be planted with something else.

The same applies as well to grape-cuttings or cuttings of any kind. If the ground is warm and dry, the grape-cuttings had best be set out in the fall, as the "callous" is thus formed early, and the new roots will be ready to push with the first warm weather in spring. On wet and damp places, however, late planting is just as good, as the "callous" never forms if the ground is excessively wet. On the contrary, the butt ends are apt to sour or rot, which precludes any callous ever being formed. The orchardist generally delays planting too long, and hardly ever realizes the advantages of getting his orchard in as early as possible in the winter.

In connection with this I will mention another point, which both bothers the nurseryman and injures the planter; the idea of some of the latter is that all the good trees are disposed of early, and the bad ones late. While this holds good as to varieties sometimes, it does not as regards size of trees. The orchardist, therefore, writes the nurseryman to dig his order and heel it in for him. He is not yet ready; will be so in one or two months, and will then write for his trees. It is an entirely mistaken idea that such proceeding will benefit any one, and I wish here to point out that it is decidedly to the disadvantage of the planter to have the nurseryman care for his trees, heeled in. If these trees or plants are heeled in and kept separate, after being dug, the roots will start almost immediately, and when afterward the order comes to ship the trees, they are re-dug, the young roots exposed to the air and dried, and the trees suffer more or less. If the planter is not ready to plant his orchard when he orders his trees, he had better take them and care for them himself, heeling them in on a proper place. When he is ready, the trees can then be dug and immediately set out before the young roots have time to dry and spoil. I believe by such a proceeding a crop may be had a year sooner.

To sum up, I think trees and shrubbery should be planted as early as possible in the winter on dry and warm soil; on wet and cold soil they should be planted at the end of the winter. If the trees have already made new roots, it is of the greatest benefit to save them and prevent their drying. GUSTAV EISEN.

Fancher Creek Nursery, Fresno.

SHEEP AND WOOL.

Hints to Flock-Owners.

EDITORS PRESS:—Assuming that the conditions under which sheep husbandry is conducted on the Pacific Coast are not radically different from those which prevailed 14 years ago, when I was personally familiar with the business in the Salinas valley, I wish to offer the California flock-masters a few suggestions.

The three most important points in the practical management of the flock are lambing, winter care, and working off the culls and mutton sheep. "Take care of the pence and the pounds will take care of themselves," is an old and truthful saying. The main flock of mature sheep and the clip of wool are the pounds; the three items above mentioned are the pence.

1. Lambing.—The lambs are the interest on the shepherd's capital, and it depends principally on himself whether he receives 75 per cent, 60 per cent or only 50. It is almost impossible to have a range ewe too fat, either at coupling or at parturition, because she has abundant exercise; but in a breeding flock, which is yarded, a ewe may become so loaded with fat as to be sterile, or at least produce a feeble and flaccid lamb. This applies to ewes which have reared lambs the preceding summer. There is always a considerable percentage that "miss" at service, or for some reason fail to bear or rear lambs, and these are apt to get so fat before the coupling season comes again—passing their heat so many times fruitlessly—that they will be barren unless they are separated into a flock by themselves and their condition reduced a little before service.

Service should be so timed as not to have lambing come on before the heaviest spring rains are over. In case the flock-master is accustomed to go into the mountains for the summer, there is a great temptation to him to get lambing and shearing out of the way early, before the flocks start for the summit; but this may be overdone. During the long cold rains of February and March, in the Sierra foothills and mesas, I have seen from one to three young lambs lying dead close around the trunk of many a tree, and from one to six freshly shorn sheep, in a heap, in almost every ravine or little depression in the mesa, stiff and cold, where they had crouched together to escape the wind. It is worse than useless to bring on lambing before there is a sufficiency of green feed. Green feed makes milk, and milk makes the mother. Without a good supply of milk in her udder, the ewe is very apt to disown her lamb, and then all is lost.

If the ewes could receive a little grain a month before lambing, this would enable them to pass through the ordeal earlier and on a more scanty supply of grass than if the latter were the sole dependence. This grain feed need not exceed six or eight ounces to the head, and should be scattered in little piles on the ground. (This is better than troughs, where there is a hard, smooth surface, not sandy or muddy, as it permits each to get an equal share.)

With many flock-masters it seems to be a difficult matter to strike an even balance between loss of sheep and cost of feed. We will suppose that $500 worth of feed would prevent the loss of $500 worth of ewes and lambs. A good many flock-owners seem to argue, judging from their actions, that if it will do no more than that, it is not worth the trouble; overlooking the very important fact that that amount of feed would probably save $500 additional in preventing loss of condition, light fleeces, "jointed" fiber, stunted lambs, destined, in all probability, to succumb the following winter, even if they survive this, etc.

It is a great mistake to scamp the work of lambing by reducing the force of help. It is easy enough to lose in a day enough lambs to pay a man's wages for a month. The point of greatest importance is, to keep each ewe and lamb together and at the same time work them homeward to the corral. If a ewe, especially a young ewe, loses sight and scent of her lamb for an hour, the probability is strong that she will never recognize it again. If the number of helpers is too small, the lagging ewes with very young lambs at heel will be crowded and beaten along, and confusion will reign supreme. There ought to be enough men assisting the regular herder so that one may start out from the flock toward the corral with an installment of ewes and lambs every three or four hours through the day.

On stormy days there ought to be especial vigilance and activity in camp, for on a stormy day look out for a shower of lambs. It is unfortunate to be compelled to drive, huddled together, a large number of ewes and young lambs in the rain, for the rain and the rubbing together are apt to obscure or obliterate the scent by which alone the ewe recognizes her own.

The second point—winter care—has been partly treated already. I once saw, within sight of the dome of the State Capitol, a farmer build a furnace and boil up the carcasses of his sheep for hogs—sheep which had perished in winter, but most of which might have been saved by the wheat straw that he burned in the fall! The average California flock-master may smile incredulously at this, but the writer knows whereof he affirms, for he has, even in the rigorous winter of Ohio, carried a flock of 225 wethers through in good condition on wheat straw and corn alone, and shorn excellent fleeces from them—fleeces above the average of the entire lot of sheep; and Ohio straw, bleached and weatherbeaten, is much less valuable for feed than the bright yellow straw of California. The chaff is especially valuable. If straw was properly stacked to shed rain, and the parts of it richest in chaff given to sheep in board-racks, they could be kept thriving through the winter on a feed of six ounces of barley per head daily, for grown sheep.

As for shelter, I do not recommend straw sheds, such as might be made for the small flocks of Eastern farms. Unless the straw is piled very deep on the roof, they are a nuisance, except it might be as mere wind-breaks, without a pretense of a roof. Unless the shepherd has a long purse or a short flock, so that he can afford to protect his sheep with board sheds, the best thing he can do is to furnish the herder a gum coat and keep the flock moving in a long, cold rain. But barracks ought to be built if possible.

I speak of wheat straw because it is so abundant on the Pacific Coast and so generally wasted. Probably the flock-master would think he could not afford to give hay to range sheep, but it is quite possible that he may be mistaken in this view, especially where wild hay can be harvested in quantities.

3. There is a delusive saying in Texas and California: "Old sheep for mutton." This has arisen from the fact that, in regions remote from a market and sparsely settled, there was so little demand for mutton that the flock-master found it profitable to keep his wethers, generally, until they died of old age, and the ewes until they died of lamb-bearing. But this is certainly an error. The interesting and valuable experiments made on the Sweet Bros. flocks, at Pompey, N. Y., in the years 1861-3, show that wethers continue to increase (after the first year) in their percentage of wool up to their fifth year; ewes the same; but after the fifth year they decline. That is to say, a sheep of either sex has reached its highest value for wool and (mature) mutton at the age of five years; then it enters on the down grade. A sheep five years old or over will consume more feed than a young one, but is less profitable, because it yields a lower percentage of wool, though the fleece may weigh absolutely more. Now, the proposition I lay down is this: If a wether that has passed his climax, or a superannuated ewe, fattened cheaply on grass, will fetch anything above the cost of transportation, it is better to sell them and fill their places with lambs.

A flock of muttons should be allowed to retain their fleeces in the fall for protection. Then when well fed out, if driven by easy stages to a railroad station and fed on alfalfa, hay and grain for a few weeks, to remove from the flesh the wild gamy flavor of the black sage and other shrubs, and then shipped on double-deck cars to the best available market, in judicious installments, they will seldom fail to bring a profitable price. Wild range mutton "kills red," as the butchers say, and it also "cooks red," does not brown nicely in the oven. It requires a few weeks' feeding on good hay and grain to impart to it the juicy flavor and brown color, when cooked, which are the delight of the gourmet. STEPHEN POWERS.

Wash. Co., Ohio.

The Mohair Market.

EDITORS PRESS:—Fall mohair is now coming in freely, and we take pleasure in giving you our opinion of the domestic clip in general. We have always been opposed to a second shearing, but so many excellent breeders, long experienced in the business, claim its advantages, and the handsome condition of this fall's clip, has induced us to modify our views very materially. There is one very serious drawback, however, and that is that in sorting the fall clip yields a very large proportion of mohair too short to comb. No matter how fine, silky or lustrous this may be, it is only carding stock and must be sold as such. This brings down the average value of the clip, even when it is a very choice one. Growers should try and keep their mohair free from alkali, which seems to destroy the natural oil which gives the fleece its luster.

The market is still in a depressed condition. We should be pleased to report it more favorably, but have to state the true facts. The demand is very sluggish and prices continue low. We look for a better sale after the new year, but cannot reasonably expect any advance. The course of the foreign market, which so many growers confound with our own, has been as follows since June, 1883: Values increased gradually from then till January, 1886, when there was a marked decline. The dullness and low prices continued till June, when there was a sudden and still greater decline.

At this time English manufacturers were heavily stocked and there was no demand in their market for Turkey and Cape mohair. This caused the drop and our American manufacturers sent large orders abroad and refused to receive on consignment or buy domestic mohair. They cared nothing for an American industry in which they claimed to have a great interest, but they simply wanted to get cheap, raw stock. We did not join in this movement at any time, and did all we could to sustain our home market. It is a curious feature that while English manufacturers were heavily stocked and their market very dull, that they went to Turkey and the Cape and tried to raise a boom there. The English market felt the effects of this about October, but it soon passed over, and there it is reported as being very quiet and prices weak.

For choice fine, 36 cents is full value to-day. Good average combing will bring only 34 cents, and fair average will not command more than 30 cents. Carding stock is slow sale, from 15 up to 25 cents for very clean, bright lots. We see no reason or possibility of values going lower. WM. MACNAUGHTAN'S SONS.

New York.

METEOROLOGICAL.

Pacific Coast Records to Dec. 31, 1886.

The Signal Service has prepared a summary of the weather reports during the past year, showing the total rainfall and giving figures for comparison with past years. This summary shows that less rain has fallen this year than has fallen, on an average, in previous years, and considerably less than fell last year.

The following is the summary and review for the month of December relating to rainfall and temperature:

Rainfall—The Northern California boundary line is coincident with the zone of December normal precipitation, south of which the rain has been below the average, being about three inches in a belt parallel to and near the coast, two inches in a belt passing down the great California valley, and one inch down the Sierra Nevada range. In Western Washington Territory and Northwestern Oregon the excess above the average is four inches, thence south to the California line it gradually diminishes to the normal.

Seasonal Rainfall—But slight departures have occurred in Oregon and Washington Territory, except in the Willamette valley, where the deficiency at Portland is about six inches. In California the deficiency throughout the State is noteworthy. In Sacramento valley the precipitation is from about three to five inches below the average; in San Joaquin valley from one to three inches; in the Santa Clara and Salinas valley from one to four inches, and in the southern portion of the State about three inches below. The rain has, however, fallen in gentle showers with an absence of downpours, so that the whole of the rain has penetrated the soil.

Rain was generally prevalent in Washington Territory and Oregon during the month. In California rain fell to the central portion of the State in considerable showers the 7th, 8th and 9th, 29th and 30th. Light showers occurred in the extreme northern portion, with sprinkles as far south as San Francisco and Sacramento, the 11th, 15th and 16th, 22d and 23d. Rain occurred in Southern California the 9th, 29th and 30th.

Temperature—The mean temperature has been normal only at San Diego; elsewhere throughout the Pacific Coast it has been above it. The line of one degree in excess skirts the coast from San Francisco to Los Angeles; the line of two degrees passes parallel to the former and through Sacramento; of three degrees through Red Bluff down the Sierra Nevada range to Yuma; of four degrees from Shasta southeastward; the line of five degrees passes from Winnemucca, inclosing northeastern California through Roseburg, Portland and Olympia; north and east of this the excess is still greater.

General Weather Features—A number of cyclonic areas appeared off the Washington Territory coast, but invariably passed eastward and failed to move down the coast, their influence seldom passing as far south as the extreme northern portion of California.

The following table shows the rainfall at some of the principal towns on the coast from Puget Sound to Yuma. The figures in the second column give the average of the rainfall for places set forth in the first column. The third column gives the total rainfall from July 1st to December 31, 1886. The last column gives the total rainfall from July 1st to December 31, 1885:

STATIONS.	Average to Dec. 31st.	Total to Dec. 31, 1886.	Total to Dec. 31, 1885.
Tatoosh Island	44.31	....	36.70
Port Angeles	12.76	14 06	12.96
Olympia	27 37	24.02	23 53
Fort Canby	26.81	....	31.53
Spokane Falls	....	....	8.38
Walla Walla	7.15	....	4.84
Astoria	33 98	....	30.04
Portland	22.75	16.91	20.09
Roseburg	14.62	15.89	16 71
Fort Bidwell	7.37	7.07	13.17
Boise City	5.02	3.99	4.43
Winnemucca	3.43	3.93	4.97
Cape Mendocino	8.09	....	13.89
Delta	22.23	9 41	42.92
Redding	13.18	6.45	20.90
Red Bluff R. R	11.04	6.45	24.27
Red Bluff Signal Station	11.04	5.96	23.97
Tehama	6.35	2.78	13 90
Corning	4 60	2.31	15.86
Oroville	12.21	2.95	3.67
Chico	7.89	3.90	14.98
Nord	....	3.39	16.60
Orland	6,61	2.27	12.46
Willows	4 84	1.51	11.25
Marysville	6.47	2.93	12.18
Emigrant Gap	14.06	8.86	22.90
Cisco	15.84	5.00	14 27
Colfax	15.15	6.58	22.87
Auburn	11.49	7.03	19.93
Rocklin	6.83	4.44	13.31
Dunnigan	5.64	2.42	15 72
Woodland	5.77	1.29	12.95
Knight's Landing	5.64	1.83	12.93
Davisville	6.26	2.29	14.45
Calistoga	11.12	5.54	21.18
Napa	7 10	3.74	13.52
Sacramento	7.62	3.09	17.20
Brighton	4.53	2.44	10.10
Suisun	8.00	2.51	15.08
South Vallejo	5 11	3.07	12.67
Martinez	5 63	2.87	12.40
Antioch	3 99	1,42	7.06
Oakland	6.35	9.04	13 59
Stockton	4.81	1.72	7.47
San Francisco	9.32	4.63	17.66
San Mateo	6.41	3.48	9 37
Menlo Park	5.11	2.76	8.50
San Jose	3.93	1.96	9.56
Santa Cruz	8.52	4.09	13 40
Aptos	4.67	3.50	14.83
Gilroy	6.49	2.20	9.22
Borden	2.88	1.60	9.62
Fresno	3.07	1.44	9.88
Selma	....	1.19	....
Traver	....	1.63	7.35
Hollister	3.93	1,34	6 30
Salinas	2.93	2.24	7.71
Monterey	4.88	2.08	8.46
Pajaro	6.35	2.69	12 17
Soledad	2.51	1.19	7.44
Goshen	2.74	1.34	5.72
Hanford	4.26	1.15	4.34
Tulare	1.88	1.10	4 95
Delano	1.79	1.03	5.15
Caliente	3.01	2.78	5.75
Keene	3.73	3.48	4.53
Spadra	3.36	1.45	4.64
Los Angeles	5.69	2.09	7.55
San Diego	3.99	1.10	2.71
Yuma	1.47	3.57	2.57
Keeler	1.04	.31	1.37

SALT ARTESIAN WATER.—An artesian well being sunk at White Plains, Nev., is down over 2300 feet, and can go no further until the water, which is 17 per cent salt, and so heavy that the ropes and tools float on it and the drill does not penetrate the rock, is shut out.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

The Grangers' Installation at Haywards.

The joint meeting of Eden and Temescal Granges at Haywards, on Saturday last, was a very enjoyable affair. Haywards is about 16 miles from Oakland, and the ride between the two places, on Saturday last, was indeed a charming one to all who had the pleasure of enjoying it. Worthy Lecturer Flint was promptly on hand to aid and encourage the goodly number of Patrons present. Brothers Webster, Deming and Baldwin (of Danville Grauge), with their wives, were also in attendance.

Eden Grange was opened in ample form by Worthy Master Perham. By request, Bro. Flint instructed a class of seven sisters and three brothers in the third and fourth degrees. The conferring of the degrees of Matron and Husbandman on these young ladies and men marks an encouraging day for Eden Grange. In thus joining the ranks of our noble Order, we have no doubt that many of them will find that they have taken a more important and wiser step than they have dreamed of with the fraternal friendship of the great brotherhood in their favor. We heartily wish them all success in their relations with our Order and with all their worthy undertaking.

We congratulate the ladies of Eden Grange, for they decorated the long tables of the Harvest Feast very handsomely, with rare flowers tastefully arranged with tempting food, and the sentiments, expressed in a friendly and lively way, were exceedingly enjoyed. Brother Chester, State Secretary, Brothers Blackwood, Anway, Dennis, Baldwin, Deming, Webster, Goodenough, Dewey and others co-operated in saying many pleasant things.

After Harvest Feast, Brother Flint, assisted by Brother Webster, duly installed the officers of both Granges, and the inspiring remarks and faithful pledges given by each officer received a warm response from the heart of every true Granger present. The graceful, easy and homelike manner in which the installing exercises were conducted by the officers, and participated in by those installed, made it a very delightful occasion, long to be remembered. The method of joining together in such installing ceremonies proves an exceedingly fortunate one. Brother Perham, the retiring Master of Eden Grange, has served his fellow-Patrons ably, faithfully and very acceptably the second term in that office, as well as many years in other responsible stations.

Brother Chester assumes the gavel with improved prospects of the Grange for the future, and will have a hearty support of the active, faithful members before the year rolls round, it is hoped that Eden Grange will have two more neighbors, respectively at Centerville and Livermore, in Alameda county. As a slight recognition of the long and faithful services of Sister Babcock as Secretary of Temescal Grange for seven consecutive years, and Sister Sharai, Secretary of Eden Grange for nine years, Brother Dewey presented, as a slight token of appreciation on the part of their respective Granges, handsomely bound volumes of the "Life of Mother Bickerdyke," written by a talented daughter of California. The work of that noble woman, like that of these worthy secretaries, is worthy of all praise.

It is seldom that the Master of any Grange serves long enough to do so much real praiseworthy work for the Order as such modest and faithful servants as these two secretaries. We can further say that they are only two of many who work on quietly, year after year, their own consciousness of doing good being their greatest reward.

Brother Russell, we are glad to learn, is improving in health. He was unavoidably absent on this occasion. We were sorry to miss some other good Grangers, whom we know would have been present, if possible, and would have enjoyed the occasion as only good and liberal Patrons can do.

Grangers' Bank.

Albert Montpellier, cashier and manager of the Grangers' Bank of California, has issued a notice to the stockholders, informing them that the Board of Directors, at their regular meeting held Jan. 11th, declared a dividend (the 12th) of $4 per share, payable immediately—equal to about seven per cent per annum free from tax—the same amounting to $42,000, and ordered carried over $13,500 to the reserve fund, the net profits of the bank for the year 1886 being $55,500, equal to 9¼ per cent on the capital paid up, making the total amount of dividends paid in cash to the stockholders, since its organization in 1874, $465,000.

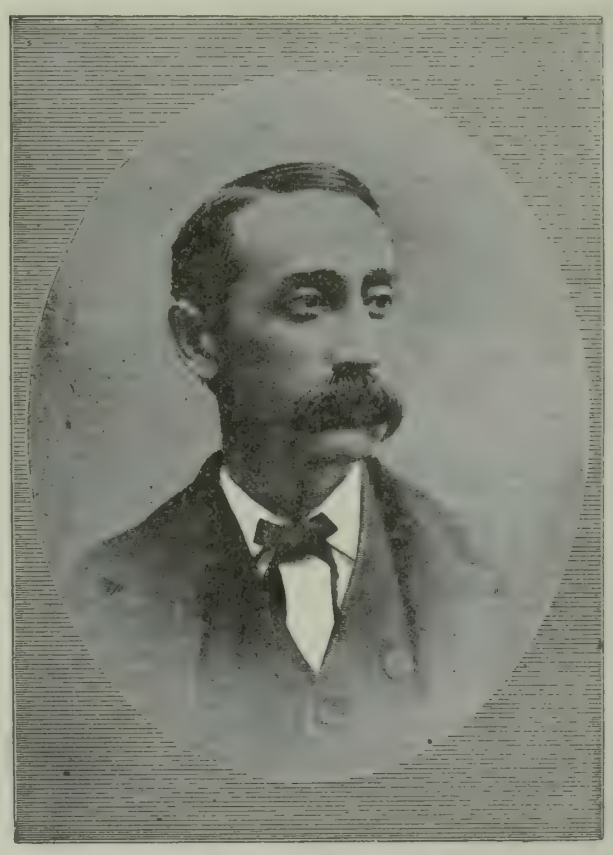
The annual meeting of the stockholders of the bank was held in the afternoon of the same day and the old Board of Directors was unanimously re-elected. Officers and management remain the same as before.

GRANGE SOCIAL.—The young people of Martinez and neighboring towns will be pleased to learn that the next Grange social will come off Saturday evening, Jan. 15th. This date has been fixed upon in order to take advantage of moonlight, which will be fully appreciated by those coming from a distance.—*Gazette.*

Mortimer Whitehead.

Brother Mortimer Whitehead, Worthy Lecturer of the National Grange, enjoys a national reputation as an early worker in the Grange cause, and one of the builders of our Order. And through his weekly notes of "Grange Work and Progress," this winter, he has been growing so like an old acquaintance to our readers that we are sure they will be glad to learn more about him, and know how he looks. We have therefore taken pains to secure the excellent likeness which we now have the pleasure of presenting, together with an interesting biography, for which latter we are mainly indebted to the *National Farm and Fireside.*

He was born October 9, 1841, and belongs to one of the oldest families in the State of New Jersey. His ancestors, on both father's and mother's side, were among the patriots of the Revolution; even the women of the family partook of the "Spirit of '76." At the battle of Monmouth—fought on an extremely hot day in June—Aunt Peggy Whitehead was one of the women who carried water out to the soldiers on the field all day. And when the town (now city) of Elizabeth was threatened by the enemy, Aunt Rachel Whitehead helped roll the barrels of flour from the warehouses, to get it to safer quarters. The broad Anglo-Saxon name traces back across the water to one Master Whitehead, who was chaplain to Queens Anne



MORTIMER WHITEHEAD, LECTURER N. G., P. OF H.

Boleyn and Elizabeth. His mother comes from the Huguenots, who, because of their persecutions, love of liberty, and desire to worship God after the dictates of their own consciences, were among the earliest settlers of this country. On his mother's side, as we have stated, the family were active in the battle of freedom. Gen. Heath (his mother's maiden name) was one of Washington's most trusted generals, particularly in the campaigns through the "Jerseys."

Bro. Whitehead received a good education, mainly at Paulding and Oak Hill institutes, on the Hudson river. While not yet of age, from his father's farm he enlisted in the Twenty-sixth New Jersey Volunteers, and passed through some of the severest battles of the war with the Army of the Potomac, being of Gen. Sedgwick's famous Sixth Army Corps, and serving under Generals McClellan, Burnside, Hooker and Meade. At the close of the war he deliberately took up agriculture as his profession, purchasing a farm of 106 acres, which he has owned ever since, and upon which he is now living, at Middlebush, Somerset Co., N. J. Progressive farming alone suited him, and he glories in the name of "book-farmer," and was active in farmers' clubs and a director in the County Agricultural Society at an early age. Like thousands of others, he was all ready for the Grange when it came, and went into it with his whole heart and strength. Himself and wife were charter members of the first Grange organized in New Jersey—Pioneer, No. 1—as far back as 1871, when there were hardly 100 altogether in the United States. Of this Grange he was first Lecturer. He soon after helped organize a Grange nearer home—Somerset, No. 7—and was elected its first Master; was made a general deputy, and helped organize Granges in several counties of the State. At the organization of the State Grange he was elected a member of the executive committee, and one year later Master of the State Grange, making his first appearance in the National Grange at Charleston, S. C., being the youngest Master of a State Grange. At the Louisville session of the National Grange he was elected Assistant Steward, and served two years, followed by his election at the Cincinnati session to the office of Lecturer. At the 19th annual session of the National Grange, at Boston, November, 1885, he was again honored with the office of Lecturer. He was also elected and is serving as Lecturer of the New Jersey State Grange for the third time. Of his powers and success as a lecturer it is not necessary for us to speak; he is too well known, having lectured in nearly all the States of the Union, and has the honor up to this time of delivering more public and private lectures than any other member of the Order, amounting in all to 3597, to do which vast amount of work he has traveled in distance nearly 10 times around the earth. He is a natural orator, and his earnest and eloquent efforts, listened to by hundreds of thousands, have been of vast benefit in building up the Order, and his labors are duly appreciated. For over nine years he was one of the editors of the *American Grange Bulletin*, but is now upon the staff of the *Farmers' Friend*, of Mechanicsburg, Penn., and his vigorous pen is used as effectively from week to week in its columns, in battling for the rights and interests of farmers, as are his words upon the platform. The heavy, constant labors of over 13 years in the field told upon Mr. Whitehead's health, and he was forced to recruit his weakened throat and lungs by rest from speaking, devoting his time more closely to editorial work, and to conducting Fruitvale as an experimental farm. He has broken loose again of late and is heard from in no uncertain sound against monopoly and for the right.

Brother Whitehead has four children—three boys and one girl—and that he may long be spared to our Order and his country, we know, is the sincere wish of his 10,000 friends. We can only wish the Grange had 1000 more like him. They are needed.

GRANGE ITEMS.—We note in the *Patron* that Wheatland had a goodly attendance and fine time at installation New Year's day, with visitors from North Butte, South Sutter and Yuba City....Lafayette Yates, of Elsinore, is endeavoring to found a Grange in that part of San Diego county....The revived Sierra Valley Grange has 17 charter members—seven brothers and 10 sisters....Elk Grove's officers were installed by W. M., Johnston, assisted by C. A. Hull, W. M. of Sac. Pomona Grange. A number of guests, not members of the Order, were present by invitation, and evidently enjoyed both dinner and installation.

INSTALLATIONS.—The officers of Sacramento Pomona Grange, a list of whom we published at Christmas, were duly installed last Saturday at Granger hall, Sacramento, by W. M., Wm. Johnston, assisted by Sister Jones, of Yuba City Grange.

Lodi and Woodbridge Granges had a joint installation at the hall of the former on Wednesday of last week. The ceremonies were conducted by D. Flint, W. L. S. G., assisted by W. L. Overhiser, W. O. S. G.

CORRECTED.—Among our "Grange Elections" may be found a corrected list of the officers whom Enterprise installs today.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Hon. Norman J. Colman, U. S. Commissioner of Agriculture, has issued a circular requesting the Lecturer of the National Grange and the various State and Territorial Granges to forward to him the name and postoffice address of the Master, Lecturer and Secretaries of the Pomona and District Granges, with the view of fostering and perpetuating a hearty co-operation for the promotion of the agricultural interests of the nation. A similar circular will be issued to the secretaries of Farmers' Clubs and other purely agricultural associations. It is to be hoped that the officers of the Granges referred to will all act promptly in the matter. Each neglect of duty not only deprives the one Grange of its benefits, but weakens our general power for good. We must act together.

The reports that have been coming in from the annual meetings of the State Granges in December are full of encouragement. A few items plainly tell of the rising tide all along our lines.

Mississippi.—Put. Darden, W. M. N. G., and M. S. G., writes: "I have just returned from a most successful and profitable meeting of the State Grange."

Minnesota.—W. S. Choen, M. S. G., writes: "The work is beginning to look up in this State. Had a very harmonious meeting of the State Grange, and I think accomplished more work that will result in good to the Order than for a number of years."

Vermont.—Alpha Messer, M. S. G.: "We had the largest and best meeting of the State Grange that has been held for several years. The utmost harmony prevailed, and the enthusiasm and determination of the members to push the work was a surprise to the members themselves."

Kentucky.—J. D. Clardy, M. S. G.: "Just closed one of the best meetings of our State Grange we have had for several years. We hope to have a general revival during the year."

Maine.—Eleven new Granges during the past year. Total membership, 15,059; 1100 new members; *net* gain, 628.

Pennsylvania.—Eighteen new Granges between sessions of State Grange, 1885 and 1886; 1726 new members; *net* gain, 994; $1000 appropriated for lecture work for 1887.

Connecticut.—Eighteen new Granges during the year. Increase in membership nearly 150 per cent. J. H. Hale, M. S. G., says: "There is an increasing interest and love for the Order in nearly all of the older Granges, and a growing respect and confidence for the Grange and its work by all good citizens."

Michigan.—Nine new Granges. A large and profitable State Grange meets in capitol building at Lansing.

New Hampshire.—Nine new Granges; total membership, 5300; net gain, 561. "The Grange in New Hampshire has realized a year of great prosperity numerically, financially and educationally, and it is increasing in popularity each year in the minds and hearts of the people of every class and profession."

Wisconsin.—S. C. Carr, M. S. G.: "Our State Grange closed on the evening of the 16th. We had a good attendance. The Governor of the State gave us a rousing reception. All went home happy, feeling that the Order was on an upward and onward course."

Massachusetts.—James Draper, M. S. G., says: "We rejoice in a prosperous year with a gain of two Granges and 143 in membership."

Delaware.—Henry Thompson, P. M. S. G.: "We closed a very successful session of the State Grange yesterday. The city papers gave us free reports and liberal editorial notices. I feel the Order has received a boom it will feel for a long time."

Iowa.—J. E. Blackford, M. S. G., says, after the meeting of the State Grange: "Prospects encouraging."

Indiana.—Milton Trusler, M. S. G.: "The 16th annual session of the Indiana State Grange was the best ever held in the State. Citizens of Frankfort and Patrons of county gave us a hearty welcome in public reception. The Masons, Odd Fellows and other benevolent orders furnished their beautiful halls free for our private meetings; the press, eager for all news, publishing Master's address in full, sending it broadcast over the State and recommending it to be read by all. We are growing stronger in the minds of the people and the leaven is at work."

"We are plowing and sowing and reaping,
All over America's land."

Grange Elections.*

ENTERPRISE GRANGE.—Dec. 11: W. A. Birch, M.; E. J. Lynch, O.; Zenos L. Coy, L.; A. M. Gunter, S.; Ulysses Wilson, A. S.; Thomas Waite, C.; Mrs. S. C. Coy, T.; Miss Letitia Hanlon, Sec.; A. A. Krull, G. K.; Miss Edith Tibbitts, Ceres; Miss Cerita Wilson, F.; Miss Minnie Schulze, P.; Miss Etta Plummer, L. A. S.

FLORIN GRANGE.—Jan. 1: John Reese, M.; D. H. Buell, O.; Sister I. A. Casey, L.; David Reese, S.; Wm. Johnston, A. S.; Sister H. A. Anderson, C.; C. Towle, T.; L. H. Fassett, Sec; J. Jackson, G. K.; Mary Donovan, P.; Lillie Casey, F.; Mamie Brown, Ceres; Annie Donovan, L. A. S.

SIERRA VALLEY.—Dec. 28: Geo. P. Haines, M.; A. E. Knerr, O.; B. F. Lemmon, L.; Mrs. Geo. P. Haines, S.; Mrs. Mary Lemmon, A. S.; J. Hubbard, C.; Mrs. J. B. Albee, T.; N. N. Strang, Sec.; Hal Lemmon, G. K.; Mrs. G. J. Johnson, Ceres; Miss Leora Robbins, P.; Mrs. J. N. Phipps, F.; Mrs. N. N. Strang, L. A. S.

WHEATLAND GRANGE.—Dec. 4 (installed Jan. 1): Hugh Morrison, M.; Julius Hollister, O.; Frank Kirshner, L.; Samuel Kuster, S.; Abner Hollingshead, A. S.; Mrs. L. W. Hamilton, C.; Mrs. Lou Fraser, T.; I. W. Huffaker, Sec.; Michael Horner, G. K.; Mrs. L. Huffaker, P.; Miss Mary I. Ostrom, F.; Miss Fannie C. Dam, Ceres; Miss Lizzie Oakley, L. A. S.; Miss Rosa Ostrom, Org.

*Secretaries, or other officers, are invited to send us lists of officers elected, date of installations, and all other interesting matter for publication.

Grangers' Business Association.

The Sacramento Grangers' Co-operative Business Association held their annual meeting in Grangers' Hall at Sacramento, Jan. 11th. According to the report in the *Record-Union*, the Directors of the past year were re-elected. as follows: Daniel Flint, N. Mertes, Henry Fassett, G. W. Hancock, Erskine Greer, Chas. A. Hull, A. M. Plummer, Geo. Rich and Wm. Johnston. The Directors organized by choosing Wm. Johnston, President—a position he has held for five consecutive terms; Charles A. Hull, Vice-President; Erskine Greer, Secretary; Henry Fassett, Treasurer; and Daniel Flint, Auditor. The Association commenced business in 1877 on a capital of $2400, which has been increased to $75,000. It has a paid-up capital of $30,000, and is incorporated for $50,000. Their brick building, 80x160 feet, three stories in hight, is one of the finest structures in the city. The stockholders are all farmers.

GOOD WORDS FOR ST HELENA.—The *Star* was a delighted guest at the New Year's Grange doings, of which Secretary Peterson gave us a brief report last week, and thus voices his appreciation: At 12 o'clock a Harvest Feast was spread in the lower hall, to which we were honored with an invitation. Of course we were there, and it goes without saying that we were kindly entertained and treated to an incomparably good feast. In fact, every time we partake of a "Grange dinner" we are ready to assert it the best we ever had. But paramount to the good dinner, which an editor always enjoys, is the pleasure of association and conversation with the hospitable members of this Grange, who have the art of entertaining down to a science, and with whom one always feels at home. At 2 o'clock the ladies of the Grange held their New Year's reception, and thither we were drawn again, in company with three other gentleman callers. We found their hall upstairs beautifully decorated for the occasion. On one side, in evergreen letters, appeared the motto, "*Esto Perpetua*," on another the dates 1867 and 1887, together with the names of the seven illustrious founders of the Order. All callers were hospitably entertained and invited to partake of appetizing refreshments. During the afternoon 47 ladies and gentlemen called, attesting the popularity of the good people of the Grange. St. Helena Grange is in a prosperous condition, numbering nearly 50 members, and receiving new accessions to its ranks every few weeks. Its membership is from among our best people, and we sincerely wish that it may continue to prosper as it richly deserves.

The Fruit Union Meeting.

Fruit-growers should not forget the meeting of the California Fruit Union, which will be held at Irving hall, in this city, beginning Wednesday, January 19th, at 1 o'clock P. M. It is intended to be a general meeting of fruit-growers, for President Hatch, in his circular which we printed last week, said:

The attendance of all is desired, whether members of the Fruit Union, of any other Union or association, or of none, as the nearer we can all come to working in harmony, that much nearer will we be to success. The matter of changing the existing by-laws can, of course, only be done by the vote of those entitled to a voice in the meeting.

THE LANE LECTURES are popular lectures on medical and hygienic subjects, given at the Cooper Medical College, in this city. The fifth course was opened on the 7th instant by Prof. L. C. Lane, who addressed a good audience on "Vaccination." The remainder will be given on the first and third Fridays of the months. as follows: Jan. 21st, Prof. C. Cushing, "Water;" Feb. 4th, Prof. A. Barkan, "Our Noses;" Feb. 18th, Prof. J. H. Wythe, "Heredity;" March 4th, Prof. C. N. Ellinwood, "Medical Hints in Emergency Cases;" March 18th, Prof. C. H. Steele, "Alcohol;" April 1st, Prof. J. O. Hirschfelder, "The Skin;" April 15th, Dr. W. S. Whitwell, "The Opium Habit;" May 6th, Prof. H. Gibbons, Jr., "The Heart and Its Disorders;" May 20th, Prof. W. D. Johnston, "Lower Forms of Life." The lectures are entirely free, and no ticket of admission is required.

ANGORA PRODUCTS.—We are glad to learn by an item in the San Jose *Mercury* that C. P. Bailey, the well-known breeder of Angora goats, and president of the Angora Robe and Glove Manufacturing Co., has succeeded to the interest of his partners in the latter concern, and is preparing to enter upon the manufacture of these goods upon a much larger scale than heretofore. For this purpose he is erecting a two story building, 24x40, on North Fourth street, near Washington, which he expects to use as a factory by January 1st. He hopes to furnish employment to about 40 persons, a large proportion of whom will be women and girls.

MESSRS. BATCHELOR & WYLIE, of this city, have just received two steam-heat evaporators, which were manufactured expressly for the California market. These have been set up and can be seen in operation at their store, No. 37 Market street, where all fruitmen and others interested in producing a prime article of evaporated fruit are respectfully invited to call and examine the apparatus and system.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

ALMONDS ON SHORT NOTICE.—Oroville *Register*, Jan 6: C. L. Durban, of Pentz, in September last, gathered a crop of paper-shell almonds. One hundred of these nuts were put in the cellar where they would not dry too fast. Oct. 20th he removed the shells and planted the nuts. Every one sprouted and came up, and the little trees are now from three to seven inches in hight. Mr. Durban expects to gather a crop from these trees during the fall of 1888, thus saving one year's time by planting the nuts almost as soon as picked from the tree.

Contra Costa.

A GIANT CAULIFLOWER.—G. A. Sellers, of Brentwood, lately presented the *Gazette* with a cauliflower which weighed nearly 20 pounds and measured across the head one foot and a half. It was raised on his farm from seed of the "Snowball" variety purchased in the East.

El Dorado.

APPLES AND AURUM.—Georgetown *Gazette:* A. J. Wilton, of Kentucky Flat, came down Wednesday with his sixteenth load of choice apples for the season. This last load was all readily sold in Georgetown. Wilton's ranch is a remarkable one; while the surface is valuable for agricultural purposes, underneath is an ancient river channel rich with gold. The gravel lies from 40 to 200 feet below the surface and is drifted out and washed. Last year he leased the mine to Placerville parties, who were so encouraged with the returns that they have had their lease extended another year.

BIG TURNIPS.—*Republican*, Jan. 6: S. R. Tripp, of Upper Placerville, brought out a number of huge turnips last week, one of the Amber Globe variety weighing 14 pounds and measuring about a foot in diameter. A White Norfolk is nearly as large.

Fresno.

HANDSOME RAISINS.—*Expositor:* Col. Forsyth has sent to S. F. the most elegant box of raisins we ever laid eyes on. They were packed in a case about two feet wide, 30 inches in length, and two inches deep. Around the edges were arranged, as a border, rows of large, luscious-looking raisins, while from a common center radiated branches of the same fruit, the main stems showing between rows of gorgeous-looking berries. The case was faced with glass set in a nickel-plated frame. The fruit was unparalleled for size and beauty, and the arrangement in the box the work of an artist. It will be exhibited in S. F. for awhile, and then sent to Los Angeles.

THE RAISIN PACK.—*Republican*, Jan. 7: Exact figures for Fresno pack of raisins in 1886 have not yet been obtained, but enough is known to make it certain that the general estimate of 200,000 boxes, made some months ago, was considerably too low. The pack will undoubtedly reach 225,000 boxes, or 4,500,000 pounds, and it may exceed that number by several thousand 20-pound boxes.

Humboldt.

NOTES FROM CHINA FLAT.—Cor. *Standard*, Dec. 27: Most of the crops are in and doing well. Some of our farmers are behind hand, but are diligently at work plowing and sowing. Crane & Donohue have some very fine grain up, in fact, the finest on the river. Stock seems to be doing well considering the scarcity of feed. The grass has started and the hillsides begin to look green, but it is a poor quality and not much substance in it. Geo. Hemsted has over 300 bearing peach trees all under eight years old, also about that number of other trees, consisting of apples, pears, plums, nectarines, cherries, apricots and figs, all of which are bearing. He also has a small vineyard which he intends to enlarge with choice grapes from Napa county. Frank Martin, of South Fort, also has a large orchard and vineyard. Many others have smaller orchards and all would enlarge them if they could get the fruit to market.

Los Angeles.

MONEY IN WALNUTS.—Downey *Review:* O. P. Passons' orchard in Los Nietos, of 17 acres, yielded him at the rate of $243.24½ per acre. The sum of $135.15 would pay all the expenses of taking care of the orchard. He sold 595 sacks of walnuts, or 47,916 pounds, at 8½ and 5½ cents per pound, realizing $4000 net. As another instance, Mr. H. L. Montgomery sold $700 worth of soft-shell walnuts from two acres of land.

HEAVY MUSCATS.—Orange *Tribune:* Last season the crop of Muscat grapes in the small vineyard of Josiah Ross, near Santa Ana, was purchased by McPherson Bros. From one and three-quarter acres of land they picked and paid for, by actual weight, 27 tons and 500 pounds of grapes. The price paid was $20 per ton, on the vine, and the one and three-quarter acres brought Mr. Ross the snug little sum of $545.

Mendocino.

BOUNTY ON COYOTES.—Ukiah *Press*, Jan. 7: Our sheep-growers in the northern part of the county are in earnest in their efforts to rid Mendocino of coyotes. They have entered into an agreement between themselves to pay a bounty on scalps of $30 each, and if the Board of Supervisors do not move in this matter, they have the assurance that the incentive for hunting this most pernicious varmint is double what it was under the old rule of $15 for each scalp brought to the courthouse. Now let our bold hunter boys "go for" the coyotes. Apply to either of [a dozen parties named] and receive your money.

Monterey.

FINE STOCK IMPORTED.—Salinas *Index*, Jan. 6: J. C. Storm got back from the Atlantic States last week, bringing with him from Kansas 13 head of registered thoroughbred Durham cattle, viz., one 5-year-old cow, two 2-year-old heifers, five bulls from 6 months to a year old, and five calves. They are beauties. The cow took the first premium in her class for three years in succession at the Topeka fair. Mr. Storm also brought home from Illinois a diminutive pony and a magnificent Cleveland bay stallion. The latter will be four years old next spring, is 16½ hands high and weighs 1465 pounds. He is a genuine Cleveland bay, of beautiful color, faultless form and fine action, remarkably kind and gentle. He has attracted much attention among our local horsemen since his arrival. Both cattle and horses came through in fine order.

Napa.

NEW YEAR'S MELONS.—E. G. H., in *Calistogian:* We do not claim that watermelons can be raised here at all seasons of the year, as there is sometimes a little white frost in the winter; but I picked the last of my melons, raised in an exposed position to the outdoor weather, up to January 1st, when I concluded to pick them, ripe or not ripe. I found them ripe and perfectly sound inside and out.

PRIME POULTRY.—St. Helena *Star:* Rev. James Mitchell, in addition to being an earnest, hard-working and popular minister, is also somewhat of a chicken fancier. We think we never before saw so fine a looking lot of poultry as he has in his yard. His special pride is a pen of 12 Wyandottes, the handsomest hens we ever set eyes on. The Wyandotte rooster he recently imported from Massachusetts, at a cost of nearly $20, and there is probably no finer bird of the kind on the coast. He has his broilers weighing at two months two pounds and at four months five pounds. The pullets lay at five months, being one month ahead of the Plymouth Rock. They are pretty, docile birds, nice to have around, and their early development renders them most desirable for laying or for table use. From a setting of 25 eggs of this variety, Mr. Mitchell can show 21 healthy chicks.

Placer.

ORANGE-PLANTING.—*Republican*, Jan. 5: The Auburn Orange Co. has bought 1000 budded orange trees—the buds being one year old on two-year-old stocks—50 lemon trees and 10 lime trees, which will be planted in their orchard this spring. Besides these, 1000 Florida and 1000 Japanese seedlings will be placed in a nursery. Mr. Curry, manager of the orchard, says that of the trees planted last year those which came with the roots puddled have done better than those which came with the roots in balls.

San Benito.

HORSE DISTEMPER.—Hollister *Advance*, Jan. 7: A mysterious disease is prevailing among horses in the neighborhood of San Felipe. Last week, Donnelly, Dunne & Co. lost six and Jack McCann three. The disease is described by veterinary surgeons as spinal meningitis or disease of the brain, and usually attacks young horses. Death follows soon after an appearance of the symptoms, unless promptly attended to. Horses taken with the disease first manifest its presence by drooping the head and listlessness. The surgeons recommend strong blistering along the spine as one of the best remedies.

San Joaquin.

VINES THAT PAY.—Stockton *Independent:* John Perrott, near Woodbridge, has a small vineyard of two and a half acres of Mission grapevines. For ten years he has realized more than $100 an acre for his grapes, which are of a common variety. Last season he raised the smallest crop for many years, but he sold from that two and a half acre vineyard 16 tons of grapes for $12.50 per ton, amounting to $200. T. J. Pope has a farm near Atlanta on what is called the "sand plains." Two years ago last spring he set out grapevines enough to cover one acre, and last fall gathered a good crop. The vines never had a drop of water other than the rains, and they are now in a strong, healthy condition. Mr. Pope expects to gather a large crop this fall from that one lonesome acre of vines.

LIVE-STOCK AND DAIRY.—Norwalk Cor. L. A. *Herald*, Dec. 30: This is a fine stock country, and during the past few years much attention has been paid to the introduction of the best breeds of horses and cattle. The sales of these, as well as of beeves, do not appear among the outgoing railroad freights, although the rearing of fine horses is one of the most profitable and rapidly increasing industries of this section. A certain encouragement has been given to dairy farming by the prosperous cheese factory of Johnson & Lumbard, of Norwalk, although it is an industry not yet sufficiently appreciated by the farmers in general. During the year 1886 this firm consumed 940,869 pounds of milk, manufacturing 104,869¼ pounds of cheese, from which has been realized $11,869.62. The cheese is excellent in quality and commands a ready market at the highest prices.

Shasta.

A CITRUS VETERAN.—Shasta *Courier:* Fourteen years ago Dennis H. Dunn, one of Shasta's pioneers, planted an orange tree a few feet east of his dwelling on Back street. The plant was set in a hole about four feet in diameter, and mostly sunk in bedrock, dug out by Wm. H. Dunn. The tree received no special attention, but was once topped. It now stands 13 feet high, is limbed from ground to top, and loaded with nice, bright, thin-skin oranges—a picture of tropical beauty here in the foothills, with snow-crowned Mount Shasta in the background. This tree has this year borne 500 fair-sized oranges, 150 of which have been picked off.

Solano.

LEVEEING.—Dixon *Tribune*, Jan. 8: Work on the levees of Andrus island is being pushed forward. A good levee is completed more than half-way around the island, having a good easy slope to the hight of about two feet above high-water mark and a width of about seven feet on top. In places where the material is not good it is considerably wider. It has been completed along the Georgiana slough, and the Mokelumne river to San Joaquin, except a few breaks where the dredger will fill in. The dredger has built about half a mile, beginning at the mouth of Seven-Mile slough. It is a perfect success, filling the deepest and widest breaks in an incredibly short time. The material is pure sediment taken from the bottom of the slough and deposited where it will do the most good. With reasonably good luck they should complete the work in the next two or three months. The levees on Brannan island are nearly all completed, and in excellent condition. The people are generally hopeful and united in their purpose to succeed.

Sonoma.

SHIPPING ORANGES.—*Index-Tribune*, Jan. 8:—C. C. Carriger is engaged in filling an order for 600 boxes of oranges for a S. F. firm. The first shipment was made last Wednesday. The Carriger place, situated a few miles west of Sonoma, is noted for the excellence of its oranges, lemons, and limes, which are grown on a large scale and always find a ready and profitable market.

Tulare.

NOT AFRAID OF DROUTH.—*Delta*, Jan. 6: J. B. Zumwalt, residing near Tulare, was in town on Monday. He has 600 acres in wheat, all up and looking well. He will put in 300 more and then wait for rain. His farm has been irrigated so much, and is under such a good system of ditches, that prospective dry weather does not alarm him. The grain now up was growing finely previous to the first winter shower. The water stands now within seven feet of the surface, where a few years ago it stood at 25 feet. Irrigation has so filled the soil that one or two dry years will not cause much loss.

NEVADA.

GOOD SALE.—Reno *Gazette*, Jan. 5: O. North has made a sale of his beef cattle for $37 a head on the ranch to Godchaux. He thinks he made the best sale that has occurred in the State. He had over 600 head.

ANTI-DEBRIS WORK.—At the last session, for 1886, of the Yuba county supervisors, the Anti-Debris Committee, consisting of B. F. Dam, C. E. Stone and J. F. Flathmann, reported as follows: We, your committee, beg leave to report that on the 20th day of July, 1886, a suit was commenced in the Superior Court of Yuba county, and an injunction was issued against the South Yuba Water and Mining Company, to restrain them from selling water for mining purposes, and to prevent them from mining upon the Yuba river or its tributaries. A suit has since that time been commenced in the Superior Court of Yuba county, and an injunction granted against the South Feather Water and Union Mining Company to prevent them from mining or depositing tailings in the tributaries of the Yuba river; also two new complaints have been filed in the U. S. Circuit Court against the Milton Mining Company for contempt; also a complaint has been filed in the U. S. Circuit Court against the Manzanito Mining Company, of Crowell & Co., for contempt. All of which is respectfully submitted.

PURE WINES.—There seems to have arisen an issue between Mr. Wetmore, of the Viticultural Commission, and a number of leading viticulturists as to the value or expediency of the bill now pending before Congress, aiming to define pure wine. The pending bill does not restrict pure wine to that made from grape juice, and the prevailing sentiment of California wine-makers seems to be that such shall be its definition. The Santa Clara Viticultural Society has adopted resolutions to that effect. Mr. Wetmore has resigned his position as Chief Executive Officer of the Commission.

MULBERRY TREES.—The State Board of Silk Culture has received a telegram from New York that the consignment of 500 mulberry trees of the cultivated Cattaneo species had arrived in that city and have been forwarded to San Francisco. These mulberry trees will be distributed gratuitously to those interested in developing the silk industry. Applications for trees should be sent to Mrs. Rienzi, Secretary State Board of Silk Culture, 22 Montgomery avenue, San Francisco, as soon as possible.

THE expected war of railroad passenger rates has hardly begun in earnest. Cuts of $9 to $12 on through tickets overland are reported, indeed, but there is at present little travel eastward.



To Whittier on His Birthday.

[The beloved and venerable Quaker poet having entered his 80th year on the 17th of December, Mrs. E. Cavazza, in the Portland (Me.) *Transcript*, addressed him a "Birthday Song," hail the stanzas of which follow.—EDS. PRESS.]

What had thine heart to do with winter-time,
Thy spirit with the darkness of the year,
Thy soul with desolation and with dearth,
That in the season of cold, and snow and rime,
Of lessened light and branches bare and sere,
Thy soul took shape, thy body had its birth,
Thy life began to count its years on earth?
Yet winter hath no power upon these three;
The soul, the sun, the sea,
These are of endless freedom; unconfined—
And hence, Heaven had in mind
To send thee, bearing gifts of goodliest worth,
A messenger unto men that thou mightst be
Prophet and poet crowned of Liberty.

* * *

Thy lips were touched with living sacred fire:
Thy feet were turned aside from ways embowered
Where Art would lure thee with a lulling song;
With holy hands thou didst uphold the lyre
Warning of judgment over sin that lowered—
Apart, not mingled with the choral throng—
Until the time was come, that tarried long,
When rose the dawn of Liberty, and light
Streamed up against the night,
As when the sun makes glorious all the East;
And thou, not having ceased
To sing throughout the darkened reign of wrong,
Didst join the stars of morning and rejoice
With voice victorious as a trumpet's voice.

* * *

Yea, thou hast proved the depth of the abyss
Is but the measure of celestial hight,
And Love is great beyond man's utmost need,
And darkness is no other thing than this—
The shadow of the substance of the light.
With hearts enlightened unto faith and deed
We follow gladly where thy footsteps lead,
Singer elect of Love, and born to teach
That Love is all, for each,
And will not leave us lightless on the way
Through any shadow—nay,
That every evil hath in it the seed
Of some remote strange blessing, no despair
Can be so dark but light finds entrance there.

How shall thy praise be said, the number told
Of them that love and know or know not thee?
They are as many as the oak-leaves of the wood
Innumerable as sands that bound and hold
The countless waves of the unmeasured sea.
We hear and love thee, and we call thee good
And bless thee for thy courage that withstood
The scorn of scoffers for a noble cause,
Thy songs that grew to laws,
Thy faith in Love that will not fail to keep
Us, though we wake or sleep,
Thine heart fulfilled of human brotherhood
Tender as strong: Have honor of us and praise
For all thy past and all thy future days!

The Senator's Daughter.

CHAPTER II.

[Written for the RURAL PRESS by SARAH CAMPBELL SANFORD.]

At last, in the "wee sma' hours," he became quiet and sank into a disturbed sleep, while I watched the night through. To keep me awake I searched among the books on his shelves and found Holland's "Bitter-Sweet," one of mother's books. In my nervousness I dropped the volume, and in picking it up it opened to a marked passage: "And then the fight began, 'twixt hell and me, for my husband's soul, with the odds against me."

The book slipped from my nerveless fingers as the awfulness of my position revealed itself to me, invoked by those words, that mother had realized to the utmost. I wrung my impotent hands in an agony of grief; dry, hard sobs escaped me, but no tears—they seemed scorched, burnt up, by those dreadful words. I buried my face in the sofa pillow and wrestled with myself for control. It seemed as though I must throw myself from the window in my desperation. At last the words I had been reading in "Janet's Repentance" came to me. They had lingered in my memory, it seems: "Beware of the groans of the wounded soul. Oppress not to the utmost a single heart; for a solitary sigh has power to overset a whole world." Ah, to think of the sighs and groans from mother's dear lips in that very room! Were they to count for naught?

From her, my thoughts traveled out, toward the great army of women encamped all over the world, fighting this evil, and being overwhelmed and borne down by it; not because the rum traffic has such a mighty following, but because the better class of men and women are so indifferent to it. Because the law and Government throw the mantle of respectability about it. Ah, if the law-makers would make it just as much of a crime to manufacture or sell the accursed stuff that made my father a demon that night—that liquid fire that caused him to fell me to the floor, as to make or pass counterfeit money, how many homes would be happy, how many little children, shivering and starving to-night, would become bright-eyed, joyous creatures! I am only a young girl—I don't know much about the science of Government; but I believe, when alcohol is put under the ban of the law, many of society's most difficult problems will be solved.

As thoughts like these coursed through my brain, all sense of fatigue left me, and I paced the room until morning broke. Father still slept, and how to make my escape from the room before he awoke perplexed me. At last I ventured to swing out over the cornice and catch on to the kitchen roof, and from there it was quite easy to clamber down to the back porch, and so to the ground. Then I searched for the key, and while on my knees, feeling all through a verbena bed, Alvar laid his hand on my shoulder and drew me to my feet.

"You haven't slept at all; why did you not call me?"

"Oh, no, dear Alvar; you must never interfere; pretend you know nothing."

"But you are walking in the same path that led mother to her death. Must we all be sacrificed to this dreadful curse?"

"No, I am stronger than mother. I shall live to conquer."

"No, you can do very little; you may hinder, but you cannot cure, his thirst; and after you have worn yourself out, he will go down, dragging us all with him."

"No, Alvar! do not say it, do not think it for one moment. Somebody has said somewhere that, 'One man with God, with duty and conscience, is at last a majority.' I am not a man, only a simple girl; but I am trying to do my duty, and that is as much in the sight of God as if I were a king."

As I took my eyes from his face they rested on mother's white-rose bush, and there, hanging on one of the branches, was the missing key. I gave a cry of pleasure and ran to father's room to put it on the inside of the door before he awoke. He did not go to the office for several days, but fought, until, for the time being, he overcame the demon within him, before he went out in the midst of temptation.

That was the hardest fight. I never had to resort to force again. My entreaties would prevail when the tempest raged within him. His business increased, and money became plenty; in fact, I hardly knew what to do with the sums he gave me. The dear old home was refurnished, pictures and books abounded, and pretty dresses were common. Of course, spending so much time with father debarred me from much society, and but for the kindness of the Stanhopes I should have been entirely forgotten; but father and Alvar were always included in my invitations, and father found such congenial companionship at their parties that he was as ready to go as we.

At first, I feared the wine-cup, and declined the invitation; but dear Mrs. Stanhope wrote me such a kind note, telling me that since she had witnessed my struggle against that enemy she had resolved, with her husband's consent, to banish it from their sideboard. And then she said perhaps my influence would save some member of her family as well as my own. How the glad tears rolled down my face! Was it possible that poor commonplace I could exert an influence in such a place? Then the thought came to me that we must just live the right life, think the right thoughts, and say the right word, regardless of what it might or might not do—in other words, do right for the sake of right, and God will take care of the rest.

In return for all their kindness, father proposed to take Jessie with me to his old home in the country, a farm about 100 miles distant. So one bright morning in June we set off for a week's visit. The place was occupied by a brother of father's. I had never been there, and was quite unprepared for the primitive low-eaved house, with its yellow paint—a rambling, roomy structure, suggestive at the first glance of wide, low-browed rooms and deep fireplaces. Under the front windows a brilliant display of sweet-williams, foxglove and marigolds, and on either side of the broad, flat, unhewn stone, which formed the doorstep, glowed the blood-red peonies.

Beside the fence, and between the long rows of currant bushes and the border of sunflowers, stood a line of beehives, around which, through all those long summer days, was a drowsy murmur from the pollen-dusted workers, as they came and went from great beds of balm and sage, or hovered over the gaudy borders, where blossomed tiger-lilies, tall hollyhocks and monk's-hood, interspersed with the more delicate faces of sweet-peas and carnations.

Near the garden gate stood the well, its wooden curb and platform weather-stained and mossy with the rains of many years. In the rear of the house were the great barns, which, with the clustering sheds and out-buildings, made almost a village of themselves.

Of course, we, as guests, entered the front door and were shown into the "best room." It was a low-ceiled room, with a handsome rag carpet in broad-shaded stripes of red and green. The furniture was old-fashioned spider-legged mahogany and hair cloth—bought, I suppose, for my grandmother at her marriage. Between the front windows stood a card table, never used for play, on which were disposed a number of books in brilliant bindings, laid in prim little piles of three or four; the family pictures in ambrotype. On the wall, framed in resplendent gilt, were the oil portraits of my grandparents, a couple famed in their youth for beauty. How strange was their dress, and how stiff and ungraceful was every line! Either the country-side was incapable of passing judgment or the artist failed to delineate the beauty, for more ugly pictures I never saw.

Aunt Lucy seemed determined to keep Jessie and me in this sacred apartment, but we avoided it during our stay, preferring the large, cool dining-room. This latter was used in winter for the kitchen, but during the warm weather the cookstove held sway in a "lean-to," so that the farmer's dinners of boiled cabbage, etc., did not penetrate into the spick-span rooms, redolent of lavender. It was a large square room of cheerful aspect, and always impressed one with its exquisite neatness. The yawning fireplace was filled in with the vivid green of asparagus tops, and a large red and white jar full of lilacs stood on the brick hearth. The furniture was plain and old-fashioned; a birch table, a tall secretary, curtained behind its glass doors with faded green silk; a few straight-backed, splint-bottomed chairs and a settee with pillows in patchwork. Green shades shut out the bright sunlight, and we found it delightfully cool and inviting after our rambles in the heat. Oh, how we reveled in the meadows and woods!

Aunt Lucy was a quiet, unpretending woman whose whole soul was devoted to housekeeping and her family. Soapsuds and fresh air were cardinal virtues with her.

The family consisted of Uncle Heman, Aunt Lucy, the hired man, little three-year-old Tude (the child's name was John, but Tude was the home name), and the maid-of-all-work. An older son was away, attending school, and their daughter was teaching.

How still and quiet was that first evening of our arrival! And what strange sounds greeted my ears before it was fairly light! The noisy barnyard fowls, the cry of the calves and the lowing of their mother cows; the stir and bustle attending the morning duties of a dairy farm proved so exciting to us that we soon found ourselves out in the barn, where the entire family, save Aunt Lucy and baby Tude, were milking. There stood the patient creatures, each in its stall, with its head in a queer-looking yoke or something, calmly chewing their cuds. The smell of the fresh milk, with the fragrance of the new hay, the vaulted roof of the huge barn, and the swallows circling overhead, gave us a new and pleasant experience. "We come to our own" in the country, surely. All style and fashion slip down and away, and our real selves know and feel the sympathy existing between man and nature.

What do we want of carpets, when we can press our feet in the soft green of yonder undulating meadow? Who cares for upholstery so long as that gnarled tree covered with moss invites one to rest and drink in the blessed sunshine and sweet-scented air! The privileges of town—what are they? Is it the opera one sighs for? Just take an early morning walk and see if Mrs. Sigourney wasn't right when she wrote:

"There's a concert, a concert of gladness and glee,
The program is rich, and the tickets are free;
In a grand, vaulted hall, where there's room and to spare,
With no gaslight to eat up the oxygen there.
The musicians excel in their wonderful art,
They have compass of voice, and the gamut by heart;
They have traveled abroad in the winter recess,
And sang to vast crowds with unbounded success.
Aud now 'tis a favor and privilege rare
Their arrival to hail, and their melodies share."

How graceful the songsters are, and how they flirt and swing and chirp between the acts! I saw, one morning, three swinging on the whip-lash, which happened to be left in its socket. What an ecstasy they were in! It made me feel ready to soar away with them in the blue sky.

What delightful rambles we took during the cool morning hours, returning to the quiet darkened living-room, with its fragrance, to read and doze away the long, sultry day with the noisy cackling of the busy hens sounding in our ears.

When the shadows began to lengthen, Jessie and I would run to the barn to hunt the eggs. Perhaps the time spent in clambering and sliding over the delicious new hay, searching for those "great pearls," was the most enjoyable of all the lovely time spent on the farm.

Tude always accompanied us. He became passionately fond of Jessie, and was her shadow. Dear little fellow! he seemed possessed to swim, as he termed it, in a tiny brook that ran through the meadows a short distance from the house. He was forbidden the amusement, but that only enhanced the pleasure.

One night, as Jessie prepared him for bed, she suddenly exclaimed, "Ah, Tude, you have been swimming again."

"No, 'deed no," answered the boy.

"Yes, you have, you bad boy."

"Haven't neither."

"How did your shirt come to be wrong side out, then?"

He stopped and thought a moment, then looked up into her face as grave as a judge and said: "It must have got turned when I crawled through the fence."

Poor child! His naughty story went unpunished that time. We laughed so immoderately at its wit, we could not lecture him on the sinfulness of his falsehood.

His mother looked grave when we told her the next morning, and said: "Did you ever stop to consider that the only weapon a little child has is a falsehood? Little dogs have their teeth and kittens their claws, but a child has only a lie. How careful we should be, then, in governing him, to prevent his being tempted to commit that sin. Tude's father promised him a whipping the next time he went into the water, and now he has done a greater wrong, for I think there can be nothing worse than to acquire the habit of deceiving." And she sighed as she sifted the flour for bread.

That day was our last on the farm. A letter calling father back to his office cut short our visit. Soon after our return, Earl, Jessie's brother, came home from Harvard with honors. A series of lawn-fetes, dinner-parties and balls were inaugurated at the "Terrace," as the Stanhope residence was called. He was to have only a month's vacation, and then off for Heidelberg; so the whole month was given up to pleasuring. Father said he might as well close the office and do nothing, he was kept gallanting around so much; but he was the gayest of the gay, and became a great favorite.

One day we were sailing in Earl's beautiful yacht, "The Lady of the Lake." Earl looked like a true sailor, and managed our little craft like one, too. The day was perfect, and while we were lying becalmed, just off a tiny island, I reveled in the rich draughts of sunshine and beautiful tints of sky and water. The soft air, the whole scene, intoxicated me, as Nature, in her balmy moods, ever does. Oh! is there an amusement, a recreation, in all the world equal to spending a perfect day on a sailing craft, away from the busy, crowded town, a little world to ourselves, away for hours from the daily papers and the telegraph?

Jessie said: "Why, the most wonderful things may be happening over there, and we can't know it."

If one could only sail on, and on, without thought or care where or when we should land! But as that cannot be, I lay my worries down by the front gate and forget them while absent, never rembering they exist until I return and fit them to my shoulders again. It is surprising how much weight they lose in the interim! That particular morning household affairs had jarred considerably, but the moment my foot touched the deck I knew nothing save this—God is good and this world delightful. I leaned my head on the rail and gave myself up to dreaming, regardless of the gay voices around me. Mrs. Stanhope at last rallied me from my reverie. I made answer by quoting:

"'In the spring a young man's fancy
Lightly turns to thoughts of love.'

"But mine turn to poetry. O dear Mrs. Stanhope! thoughts press so heavily on my mind, but I cannot find words to express them. Why are we given the desire, without the language or the means to make it known?"

"Dear child," said she, "we do not live for ourselves alone, or by ourselves; we are part and parcel of a great whole. Thomas Carlyle in his essay on Robert Burns says: 'It takes generations to produce a poet.' If this is true, then cultivate and encourage every lofty and noble aspiration, even if it finds no voice with you. In some subtle process, mysterious to our mortal ken, all our thoughts will be garnered, and will bear fruit some time. If we could only realize that our very thoughts influence coming generations, would we not be 'pure in heart' indeed? Spurn an evil, impure thought from your mind as you would spurn a reptile from your path, and the world with all its evil tendencies can do you little harm."

How noble she looked, standing there in her gracious womanhood! The breeze which had just begun to freshen stirred the silver hair on her forehead. May I so live that my years will rest like a crown upon me in my old age.

The wind increased, the sails caught the breeze, the timbers creaked, and away we sped. All was animation and life. Earl stood at the helm; occasionally his clear voice would ring out, "Trim ship!" and hurry-skurry to one side we would all go, amid the laughter and jests that lie so near the surface with a pleasure party. The sun sank out of sight, and the night air began to be chilly as the darkness shut down about us. We were quite near the landing, when suddenly a gale struck us, and over our little ship careened, and threw part of the passengers into the dark water. Jessie was singing to her guitar accompaniment; her voice floating out over the water was enough to divert one's thoughts, and I suppose Earl was not quick enough with his command to trim ship. Thus our day's enjoyment was almost turned into a tragedy. I remember Jessie's voice in these words:

"And here and there a foamy flake,
Upon me as I travel,
With many a silver waterbreak
Above the golden gravel."

I caught the last word, while struggling with the cold water; then a mighty rush was borne in upon my senses.

[TO BE CONTINUED.]

WYTOPITLOCK.—Many names of Maine towns and villages are puzzling to the uninitiated, both in pronunciation and spelling, and it is fortunate that postmasters, mail agents, etc., are gifted with the Yankee faculty of guessing. A postal clerk in Penobscot county had a puzzle of the kind the other day. He found two letters in his mail, one going to "Whitoo Bedlock" and the other to "White Opedlock." He sent them to Wytopitlock and they have not yet returned.

Something for Nothing.

Don't try to get something for nothing. It is not the right spirit. It is this propensity that leads men into gambling. There is a great demand for lottery tickets everywhere because people want something for nothing. Thousands of people answer spurious advertisements which set forth that, by sending some paltry amount, information will be returned whereby a fortune may be easily made. The proposition is so absurd on the face of it that it would seem that no half-witted person would pay any attention to it, yet some very intelligent people "bite at it."

Don't *want* to get something for nothing! The consequences of such a desire are disastrous in every respect. Probably nine-tenths of all the criminal cases on record originated in the desire to get something without giving an equivalent for value received. And this is not bringing into account the traffic of rum-selling, which our imperfect institutions make legitimate. The consequences of this terrible evil alone are enough to cause us to blush that humanity is so weak as to tolerate by legal sanction a curse that destroys more lives in peace than are sacrificed in all the wars, not taking into account the privation and suffering of innocent women and children. It all comes about from a desire to get something for nothing.

Nearly all the evils and abuses of the world are the outgrowth of this pernicious propensity. Liberated from this curse, the human family would be regenerated and the necessity for great reforms would be superseded by a voluntary obedience to moral laws. Men would not then be urged by a morbid desire for gain into all manner of corrupt, dishonorable and infamous double-dealing and trickery against known laws of right. For we take it that no man consents to do wrong without moral compunction, and but for a morbid propensity for gain few among those who now set conscience aside would be violators of moral laws bearing upon the just rights and privileges of all.—*Shasta Co. Index.*

"I Made That Man What He Was."

A saloon keeper in Dover, Delaware, who patronized his own bar very liberally, stepped into a back room where men were at work about a well. The covering had been removed, and he approached to look down, but being very drunk, pitched in head foremost. He had become so much of a bloat, by the use of strong drink, that it was impossible to extricate him in time to save his life. There was great excitement in the town. Men and women who had never been inside his saloon before were the first to rush to the rescue, and offer sympathy to the bereaved family. As he was dragged from the well, and stretched out dead on the saloon floor, a wholesale liquor dealer from Philadelphia stepped in. After the first shock of finding one of his good customers dead, he turned to a prominent lady, and said, pointing to the wretched victim: "I made that man what he was. I lent him the first dollar, and set him up with his first stock of liquors, and now he is worth $10,000 or $15,000." Looking him square in the face, she replied: "Yes, you did make that man what he was—a drunkard, a bloat, a stench in the nostrils of society; and sent him headlong into eternity and a drunkard's hell. What is $15,000 weighed against a lost soul, a wasted life, a wife a widow, and children orphans?"

He turned deadly pale, and without a word left the house.

What is all the revenue to the millions whose homes are destroyed, whose children are beggared, and whose loved ones are sent headlong to a drunkard's grave?—*The Christian Women.*

QUAINT OLD MARRIAGE RECORDS.—The world discourages, and rightly so, the marriage of December with May, and when such marriages took place in former times they were usually recorded in some such way as this: "22d August (1782). At Bath, Captain Hamilton, aged 30, to Mrs. Munson, a lady of rank and fortune, aged 85." We may find even a distance of 80 years between an old man and his bride. In February, 1769, "Robert Judge, Esq., of Cooksburgh, Ireland, aged 95, to Miss Annie Nugent, aged 15. He served in King William's wars, and received a ball in his nose." Particulars of hight, as well as of age, fortune and length of courtship, were often given. "December (1755). At York, Mr. Thomas, a grenadier in the Yorkshire militia, six feet two inches high, to Miss Hannah Tennick, of Clearlam, three feet two inches high, with a fortune of £5000." And on April 5, 1785, at Ripley church, Mr. Robert Long was married to Miss Reynard; between them there was disparity both of age and size, "the bridegroom being 37 years of age and more than six feet high; the bride 20 years old and little more than three feet high." The record of a marriage in 1779 of a couple aged respectively 80 and 85 concludes thus: "And what is still more remarkable, there has been a courtship carried on betwixt them for more than 60 years."—*Brooklyn Magazine.*

"Is there much water in the cistern, Biddy?" inquired a gentleman of his Irish girl as she came up from the cellar. "It is full on the bottom, sir, but there's nothing at all on the top," was the reply.—*Boston Budget.*

YOUNG FOLKS' COLUMN.

A Girl's Experience at School.

[WRITTEN for the RURAL PRESS by DOLLIE BROOKS.]

It was just after the monthly reports had been distributed in the seminary at Highland Park and the girls were very anxious to see how many credits they had received during the month. Each one was asking the other: "What did you get in arithmetic, geography or algebra, etc. "Did you get a hundred in anything?" They all stood unusually high this month, except Annie Morris. As soon as she had received her report she ran off to her room, for she was very much afraid the girls would ask her the same question and she was ashamed to tell them.

She said nothing about it to any one except her room-mate, who was in the room when she entered. Annie said that it was the teacher's fault, for she knew she ought to be marked higher. But she could not help thinking to herself all the while that it was her own fault.

By and by her room-mate went out and she was left to herself. Conscience whispered to her: "Annie, you know you ought not to blame your teacher when it is your own fault, because you know if you had studied like the rest you would have stood as high."

Just then Mary Ford, one of the girls, happened to come in, and was astonished to see Annie sulking. "What is the matter?" she asked. Annie said "Nothing," and put her card in a book so it could not be seen. But her friend did see it, and asked her to let her look at it. This she hesitated to do, but at last consented. Mary said *she* thought it was the teacher's fault, too, and told the girls so.

She asked them to come into her room and talk it over after supper. This was agreed to.

They assembled in Mary Ford's room, and I am sorry to say that, with one exception, all took Annie's part in blaming the teacher. They all felt very much inclined to pity her and thought she was abused.

They even advised her to complain to the teacher. Annie took their advice, and the next morning went to the teacher and told her she thought she deserved to be marked higher in her report, and that it was too bad to be disgraced before all the school.

Miss Jones, the teacher, said very kindly but firmly: "The report is correct; if you had studied like the rest you would have stood just as high. You have been urged to do your duty many times, but idleness and inattention are your two great faults, and until you correct them you cannot advance like the other scholars." Annie went off to her room crying. She knew she was in the wrong. A knock was soon heard at the door, and Emma Taylor, the girl who did not take her part, entered. "I come as a friend," said Emma in her mild way, "not to find fault with you, but to give you my advice. I am sorry you are so low in your report, and it is no one's fault but your own. You know as well as I do, Annie, that you wasted nearly all your time in school when you ought to have been studying like the rest. You hurt Miss Jones' feelings very badly when you told her that which was just as much as to say she cheated you in your report. Now, if I were you, Annie, I would go and ask Miss Jones to forgive me and tell her you will be a better girl in school."

Annie thanked her friend for her advice and promised she would follow it, for she knew it was the truth, and the very next day she apologized to Miss Jones, who readily forgave her and pointed out to her how to avoid the same trouble in the future. She was a better girl after this and became very fond of Emma Taylor and Miss Jones.

Suisun, Solano Co.

Morro Notes.

DEAR EDITOR:—Morro is improving; it has a hotel, a brass band, a skating rink, and the school has 25 scholars. We had a nice Christmas and a party afterward, which was very nice. The Spooners played for the party.

We've not had much rain yet, and the dairymen and the farmers are feeling very blue for fear of a dry year.

Cayucos is still improving. I do not know much about Cambria, for I do not go there.

They have completed the schoolhouse at San Simeon, and Mr. Hearst gave them an organ, which is very nice. Their school is out until March. Our school closes in March.

People in the East couldn't believe that we could pick tomatoes from the vines for Christmas, and bouquets. All of mamma's geraniums and fuschias are out of doors. B. M.

Morro.

THE MOUND-BUILDERS.—Recent explorations prove that the ancient mound-building inhabitants of America extended their works northward beyond the Red river of the North. Along this river and Lake Winnipeg were found mounds identical in structure with the famous ones of the Ohio and Mississippi valleys.

A HANDY PEN-WIPER.—A good pen-wiper for steel pens is a piece of raw potato. It removes the ink crust and causes a smooth flow of ink.

GOOD HEALTH.

Lanolin—A New Oil.

Lanolin is the name given to a new fatty substance obtained from the alkaline water-wastings of wool, and very highly recommended as a base for various medicated salves and ointments used in treating cutaneous eruptions and other external as well as internal disorders. It consists of varying proportions of cholesterin and fat acids, with which is incorporated a certain percentage of water, which it readily absorbs, thus forming a smooth, white, unctuous mass. As some of our professional readers will be interested to know how it is prepared, we are able to present the following formula, as contained in a late issue of the *Western Druggist:*

"The wool-washings are first passed through a fine sieve to free them from mechanical impurities, and then through a convenient quantity of cut straw or sawdust; the solution is then treated with magnesium sulphate, and the resulting magnesium soap, containing also the cholesterin, is collected, well washed with water, then drained and allowed to dry by exposure to air. It is then treated with sufficient diluted hydrochloric acid to decompose the soap; a large excess of hydrochloric acid should be avoided, but sufficient added until a slight excess of acid is indicated, which is afterward removed in the process. The resulting fatty scum, consisting of fatty acids and cholesterin, is drained and treated with petroleum benzine in a closed vessel, slightly warmed to about 85° F. to aid solution, and then filtered through flannel in a closed filter press. The petroleum benzine is then driven off by evaporation or distillation, and to remove any remaining traces of hydrochloric acid, the residue is treated with from one-tenth to one-fourth per cent of carbonate of magnesia, rubbed up with water, the mixture being then well washed with fresh portions of water, until the water washings are no longer milky. It is then again melted, filtered, while hot, through flannel, and, when cold, water is incorporated, and the lanolin becomes white, hard and smooth."

The peculiar valuable quality of lanolin consists in the facility with which it penetrates the skin and is absorbed into the system. This peculiar characteristic makes it especially valuable as a carrier. There is no doubt but that gray ointments, and in fact all ointments, are much more efficient when prepared with lanolin. When used on mucous surfaces it never forms a scab.

DUST AND DUSTING.—At all times unwholesome, when dampness gets hold of dust it ferments, decays and becomes positively poisonous; and this must needs happen on any rainy day, on foggy mornings, on dewy nights, and at that season of the year when dampness seems to penetrate the house, and it is not yet time to light the fires that might dry it out or hinder it. The rooms of a dwelling-house, then, cannot be too thoroughly swept and dusted off, in order that the least possible deposit of dust may be left in them. Many housewives think that the less the dust is stirred in sweeping, the better the work is done, and tea leaves and wet grass or moistened meal is thrown about the floor in order to gather the dust and prevent it from rising. But people giving the matter philosophical attention have come to the conclusion that precisely the opposite course is the fit and proper one; that a good stirring up and then a good blowing out is what the dust needs, and that with a wind blowing unobstructedly through the room as thoroughly as a wind can be made to blow.—*Harper's Bazar.*

SLEEP A PREVENTIVE OF HEADACHE.—A scientific writer says: Sleep, if taken at the right moment, will prevent an attack of nervous headache. If the subjects of such headaches will watch the symptoms of its coming, they can notice that it begins with a feeling of weariness or heaviness. This is the time a sleep of an hour, or even two, as nature guides, will effectually prevent the headache. If not taken just then it will be too late, for, after the attack is fairly under way, it is impossible to get sleep till far into the night, perhaps. It is so common in these days for doctors to forbid having their patients waked to take medicine if they are asleep when the hour comes round, that the people have learned the lesson pretty well, and they generally know that sleep is better for the sick than medicine. But it is not so well known that sleep is a wonderful preventive of disease—better than tonic regulators and stimulants.

DIPHTHERIA AND MANURE HEAPS.—M. Ferraud, *Lyon Medical*, traces the relation between manure heaps and rural epidemics of diphtheria. On one occasion the disease appeared the day following a general street cleaning. He argues that manure should be kept in closed wells of stone, glazed with bitumen, so constructed that the fluids may filter away from the solid matter.

DEATHS FROM BEING STRUCK BY FALLING METEORS.—Prof. Shepard, of New Haven, makes a statement which will surprise most persons. He says: "There have been several instances of deaths occasioned by meteoric stones. Two monks in different places were thus killed in Italy, and two sailors on shipboard in Sweden."

DOMESTIC ECONOMY.

TO MAKE SOFT SOAP.—Dissolve three pounds of potash in three quarts of water. Put the potash, in the lump, in an old saucepan, pour the boiling water on it, set it on the stove and leave it till it is dissolved; it may take several hours. Stir it about with a stick now and then, taking care not to splash it on you, put 3 pounds of clean fat in a tub or small barrel. When the potash is dissolved, pour on the fat, stir well with the stick and leave it. Next day pour a kettle (holding at least a gallon) of boiling water, slowly to the potash and fat, stirring thoroughly. Do this every morning till the soap is made, which you will know by it beginning to look like stiff jelly when cold, and losing all appearance of grease; then try it; if it seems too strong, or makes the hands rough, add more boiling water. The soap will be ready to use in about nine days after it is started.

REMOVING CAKE FROM TINS.—Supposing it to be a loaf of cake in a deep tin. First, you must butter the tin all around the sides and bottom, then butter the paper as well (cutting it to fit the tin exactly). Now, when the cake is baked, don't try to take it from the tin while hot; set it away until perfectly cold; then return it to the fire long enough to warm the tin through, then turn it upside down on your hand, and tap the edge of the tin on the table, and it will slip from the tin all right, and you can take off the paper without any injury to the cake.

ALMOND PASTE.—One pound sweet almonds, six bitter almonds, one pound finely sifted sugar, whites of two eggs. Blanch the almonds and dry them thoroughly; put them into a mortar and pound them well, wetting them gradually with the whites of two eggs. When well pounded, put them into a small preserving pan, add the sugar and place the pan on a small but clear fire (a hot plate is better), keep stirring until the paste is dry, then take it out of the pan and put it between two dishes until cold.

VELVET PUDDING.—Five eggs beaten separately, one cup of white sugar; beat well together, then stir in four tablespoonfuls of cornstarch dissolved in a little sweet milk; three pints of sweet milk; let it come to a boiling point, then stir in briskly the other ingredients, then let it boil until it becomes quite thick, remove it from the fire, pour into your baking dish. When nearly done, take the white of eggs, beaten to a froth with one cup of sugar, and pour over the top of the pudding.

APPLE FRITTERS.—Make a smooth batter of one-half pound of flour, three eggs and a half-pint of sweet milk; salt to taste. Cut one dozen large, juicy apples into slices, after peeling and coring them. Put the slices into the batter. Have ready a pan of equal parts of lard and butter boiling hot. Take the batter up in a ladle, allowing a slice of apple to each fritter, and drop into the hot lard. Fry brown, drain a moment, and serve with powdered sugar and nutmeg.

BOILED SQUASH.—Peel and slice the squash, removing the seeds. Lay in cold water half an hour, then put on the stove in enough boiling water, slightly salted, to cover it. Boil for an hour, drain dry in a colander, and mash and beat smooth in a wooden bowl. Heat again, stirring in a lump of butter the size of an egg and quarter of a cupful of milk. Season to taste and serve very hot.

COTTAGE PUDDING.—One cup of sugar, one tablespoonful of butter, one cup of milk, two eggs, two cups prepared flour. Cream the butter and sugar, add the whipped yolks of the eggs, the milk, the flour and the beaten whites. Bake in a brick-shaped mold well greased, and slice crosswise. Eat with either hard or liquid sauce.

APPLE-CUSTARD PIE.—Three cups stewed apples; one cup (nearly) white sugar; six eggs; one quart milk. Beat the eggs light, and mix the yolks well with the apple, seasoning with nutmeg only. Stir in the milk gradually, beating as you go on; finally, add the whites, fill the crust, and bake without cover.

CORN PUDDING.—Drain the liquor from a can of corn and chop the kernels very fine. Rub together a tablespoonful of butter and sugar, add a beaten egg and two cupfuls of milk. Stir the chopped corn into this, salt slightly and bake in a good oven for about half an hour.

DELICIOUS DISH OF APPLES.—Take two pounds of apples, pare and core them, slice them into a pan, add one pound of loaf sugar and the juice of three lemons; let them boil about two hours, turn into a dish, and serve with thick cream.

DANGER IN NICKEL-PLATED WARE.—An order has been issued in Lower Austria forbidding manufacturers and tradesmen to sell nickel-plated cooking vessels. It is stated that vinegar and other acid substances dissolve nickel; and that this, in portions of one-seventh of a grain, causes vomiting, and is even more poisonous than copper.

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Saturday, January 15, 1887.

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Pacific Nursery—F. Ludemann.
Grape Seed—C. Mottier, Middletown, Cal.
Poultry—Mrs. J. Raynor, Fruitvale, Cal.
Books—Thompson, Brown & Co., Boston, Mass.
Poultry—O. J. Albee, Santa Clara, Cal.
Olive Trees—C. W. Crane, Oakland, Cal.
Steam Heat Evaporators—Batchelor & Wylie.
Seeds—D. M. Ferry & Son, Detroit, Mich.
Seeds—Alneer Bros., Rockford, Ill.
Pumps—Byron Jackson.
Horticulturist Wanted—L.
Fruit Tree Seedlings—J. T. Bogue, Martinez, Cal.
Real Estate—A. Leonard & Son, Sacramento.
See Advertising Columns.

The Week.

We give this week a collection of statistics and deductions concerning the agricultural achievements of the last year, which we trust will be acceptable to our readers both for present reading and for reference. The State has shown good growth during the year and has disclosed symptoms of awakening and enterprise which promise much for the future. The southern counties have still enjoyed the lion's share of those who come seeking homes, and a most remarkable advancement has been made in wealth and population. The incoming host has, however, shown a greater disposition to look over the whole State than in previous years, and here and there in the central and northern parts of the State the advance in development and settlement has been considerable. It is to be expected that the recent awakening at various northern points, and the efforts to make the upper parts of the State better known, will result in a wider distribution of home-seekers than has existed hitherto.

The rain problem is still in abeyance. Coming storms are heralded from the north, and, according to prognostications, there should be a change in the weather this week, as the trouble among the elements at the northern stations has been considerable. It cannot come too soon.

The Legislature is now at work, and bills are falling like the rain—we long for. Governor Bartlett was inaugurated and Lieutenant Governor Waterman installed on Saturday. In our next issue we shall begin our sketches of proposed laws on agricultural subjects, and shall expect to keep our readers informed on such matters during the session.

Railroads Subject to Government Control.

Last Monday the Senate proceeded to the consideration of the Interstate Commerce bill, and was addressed by Senators Beck and Cullom, in favor of the adoption of the conference report, and by Senator Stanford in opposition. Senator Stanford met the case squarely and with his acknowledged candor and ability. Among other things he said:

"Railroad companies are organized under the general laws of different States. They have no exclusive privileges. They are associations made by the general laws—laws of which every citizen or any number of citizens may avail themselves equally with those forming the railroad company. In the mere fact of associations they may exist entirely without the aid of the State. The association is as natural as it is for one man to call in his neighbors to help him raise his barn, or to roll a sawlog, or to any business not inconsistent with the rights of others. The State gives by virtue of the incorporation laws nothing to that incorporation. Whatever of capital or labor that is contributed to them is entirely private. The ownership of the labor and capital provided is private; as much so as the banker's ownership of his money, the farmer's ownership of his farm, the teamster's ownership of his team, and so on."

This simply means that railroad property is strictly private property, and, like all other private property, is not subject to Government control and supervision. If this proposition is conceded, it cuts up root and branch all such legislation as that contemplated in this bill. The position is certainly untenable. The fact that corporations of this kind are founded upon franchises—that is, an endowment of powers and privileges immediately conferred by the law-making power of the Government—shows conclusively that it enters into the very intention of the law that this class of property is to be kept in some measure within the control of the Government. That it is different in this respect from all other kinds of property. This is inherent in the very nature of the transaction. What is it? A contract with the Government in which the corporation agrees, in consideration of certain immunities, to build and run a road a certain period of time and enjoy its legitimate profits. Now a farmer never made a contract with the Government as to the opening and management of his farm. The house-builder, carpenter, merchant or shoemaker never thinks of plying his vocation under a grant of privileges from the Government. They are strictly private owners. There is no limit to the duration of their powers.

But when a corporation prays of a Legislature a grant of powers—whether by general or special statute makes no difference—to perform a certain work, as to build a road, telegraph, bridge or ferry, it concedes as a party to the agreement that it is about to handle a class of property that is not like any other property; that, in short, it is quasi-public property, and could not come into existence without public permission, and could not continue in existence were that permission withdrawn. What the State creates, the State certainly has the power, to some extent, at least, to control. Were that not so, the creature would be greater than its creator. The State does not by any law, general or special, build barns, houses, or sawmills. Were the State to extend any association doing this kind of business certain special immunities, then this class of business would cease to be exclusively private business and would be subject to Government control. Senator Stanford contends that the immunities and privileges granted to corporations are in consideration of the fact that their work is a public benefit. True, but how is the Government to secure a perpetuity of the benefit if it abdicates all right of control and supervision? What promised to be a public benefit might, under bad or unscrupulous management, become a public oppression. The Government never takes such risks. It cannot in the nature of things. The act would be suicidal.

This statement of the relation of railroad property to the public is the doctrine of the law as solemnly announced by the highest judicature of the nation in what is popularly known as the "Granger Cases." These decisions should have put the question to rest. They are not ancient, mythical and traditional authority, black-letter law, or decisions rendered in an inchoate state of the railroad systems. They were rendered only about 10 or 11 years ago. The issue was then squarely made and elaborately argued. No court ever existed that was more perfectly free from all suspicion of bias and prejudice.

And it cannot be seriously alleged that the doctrine announced in the aforesaid cases leads in the least degree to the confiscation of this class of property. No one in his sober senses ever doubted for a moment that railroad property has been built and is owned by individuals, and that it should be as sacredly protected in all its legitimate uses as any other individual property. Hostile legislation may make this sort of property utterly valueless to the owners, but all will agree that such legislation would not only be impolitic but absolutely unjust. But there is not a word, not a shadow of a hint, in these cases to warrant such a conclusion. "A good government," says Chief Justice Waite in discussing the leading Granger case, "never puts forth extraordinary powers except under circumstances which require it. That government is the best which, while performing all its duties, interferes the least with the lawful pursuits of the people."

That there is a liability of abuses growing out of the act that casts upon these corporations one of the great functions of government, is not strange in a world where every one works for his own personal interests. That there have been abuses to some extent is evidenced by the fact that there is scarcely a State that has not sought, by direct legislation or the creation of boards of commissioners, to check or prevent such evils. And what has been done by the States in lightening or making uniform and impartial the burdens of the people without crippling the usefulness of these roads, is what is now sought to be attained by the bill before Congress over a wider expanse of territory.

Irrigation at Sacramento.

The subject of irrigation is coming up at Sacramento in a more temperate and therefore in a more promising condition than at recent sessions of the Legislature. It is reported that up to Wednesday four bills, each of considerable length, had been introduced in the Assembly. One by Mr. Wright, of Stanislaus, provides for the organization and government of irrigation districts, and for the acquisition and distribution of water for irrigation purposes. It provides for the application of the law of eminent domain for the condemnation of the existing water rights, and is in entire harmony with the recent decision of the Supreme Court on the irrigation question. It also provides a system of elections and assessments and the collection of revenues necessary to carry out the provisions of the Act.

Mr. Butler, of Tulare, proposes to add a new section to the Political Code defining riparian rights.

Mr. Shanahan, of Shasta, has a bill intending to do away with the Supreme Court decision, and provides for the distribution of water in just proportions.

Mr. Bost, of Merced (whose name was incorrectly spelled "Boot" in our legislative list last week), has a bill providing for an irrigation commission, consisting of the Governor, Attorney-General, Surveyor-General and State Engineer, which shall divide the State into irrigation districts and organize the same with a view to the storage and distribution of water.

THE CITRUS SHOW AT CHICAGO.—Telegrams from Chicago announce that the managers of the Citrus Fair had decided to close the exhibition Wednesday night. All the surplus fruit had been used in replenishing the stock, which could not remain presentable much longer. Sealed bids had been invited for the entire lot of fresh fruit. The raisins, dried fruit, etc., were to be turned over to the Southern Pacific Immigration Commission for a permanent exhibit, and the parties in charge expected to be all on their homeward way by Thursday.

The Co-operative Bill.

Senator Stanford has prepared a bill to promote co-operation among workingmen that is worthy of serious consideration. It is no novel invention; can hardly be called an attempt at experimental legislation. It is modeled on the plan of the English Co-operation Act, which passed in 1852, and has from time to time been greatly improved by amendments. The principle has worked successfully in England. The wholesale and retail stores conducted on this plan amounted in 1883 to 1304, with a membership of 680,165. There are also numerous associations of mechanics and manufacturers along the same line. The same principle has struck root in France, though not quite so extensively. At the last report there were 74 co-operative societies in France, chiefly at Paris, consisting of jewelers, carpenters, furniture-workers, masons, painters, saddlers, tailors and other branches of mechanics and handicrafts. Many of these are improved and strengthened by incorporating the fraternal principle of insurance against sickness and death.

The principle involved in this bill may in some degree help to solve the most troublous problems of the age. We have come into an era when evolution pauses to adjust itself to the new environments. The feudal age of vassalage has been succeeded by a new class of breadwinners in the shape of wage-receivers. Labor no longer a fixture of the soil, a piece of the real estate, has gone into the world's market as a commodity for sale. In dense populations it is crowded, restless, discontented, and is steadily growing more conscious of its power and more bitter in its class prejudice. This is undoubtedly a transitional state of things that time will solve, as it has many other perplexing problems, but in the meantime and as tentative to such solution, it is clear the day has dawned to study the questions of co-operation and equalization of burdens. The issue is inevitable and must be met. In a country where the men who labor are free to think and utter thoughts, and where the law-making power is largely in their hands, it cannot be kept down. As well attempt to hold back the swell of the sea with the palm of the hand or stop the rampages of a volcano with magnetic passes. It cannot be adjourned to a more convenient season, nor soothed with pleasant embrocations. The question is upon us, whether there is in theory a common good and whether labor constructs and maintains society for its own degradation. Now, whatever measure tends in the least degree to throw light upon this dark and apparently threatening question is too precious to the human weal to be lost. It may prove to be the tiny mustard seed which grew into a great tree, where the fowls of the air came and lodged.

It is true that the co-operative principle has not so far been a success in this country. But there is a cause for it. The New Harmony Community, established by Robert Dale Owen in Indiana, and the Brook Farm in Massachusetts, and other experiments of a similar character, were tainted with communism. There is no redemption for society in that direction. To think so is akin to the craze that seeks for perpetual motion or the art of turning cobblestones into diamonds. The desire for personal ownership of property is an ineradicable instinct and will last as long as human nature remains as it is.

Just why this bill should have a clause exempting co-operative societies from the strict construction of the law is not apparent. It is under such a construction we all make contracts and do business; why this special favoritism? Then this bill is for the purpose of encouraging the formation of co-operative associations in the District of Columbia. This is proper enough, but it should be amended so as to confine the operations of such societies to that district. The reason is obvious. An association formed in the District of Columbia under its operation would be under no territorial limitation. It could do business anywhere in the United States. The legal residence would be in the District. Now, as this bill clearly contemplates the co-operation of capital as well as labor, suppose an association should go into the telegraph and railroad business. What would be the result? It would not be subject to State control and could always play the dodge of transferring its litigations to the federal courts, causing more delay and greater expense. The principle is a beneficent one, and cannot some measure be devised by which its blessings will fall like the sweet sunlight upon the rich and poor over all these broad lands?

Agricultural Review.

Leading Articles of California Production in 1886.

[Written for the RURAL PRESS by J. R. F.]

The records of the agricultural production of California for 1886 contain many facts of general interest, and no doubt a condensed compilation of statistics, with deductions therefrom and sketches of tendencies in the course of trade, etc., will be found acceptable to the industrial reader and to others who take interest and pride in the growth of the State. It is to be regretted that returns for the aggregate production of the State in some important articles are not available, and in lack of them the receipts of such produce in San Francisco must still be relied upon as an indication of amounts.

Wheat.

The market opened the year at a decline on December prices. The general tendency was lower up to April, when a sharp decline set in, owing to exaggerated crop reports being set afloat. The decline was continued up to June, when a steadier feeling set in, owing to the RURAL PRESS publishing a crop report, with complete returns from each county (and this estimate has been proven to be only about 50,000 tons in excess of the actual out-turn), which made the crop not more than one-half of the other published reports. In July the lowest prices were touched, since when there have been advances with setbacks, until at the close of the year No. 1 shipping sold up to $1.60 per cental—an advance of fully 35 cents per cental on July's opening sales. The causes which conduced to make the advance, this paper gave in July, and, as other facts were obtained, they were given from time to time, so that the RURAL PRESS patrons have themselves to blame if they sold at a sacrifice. The big crop reports sent a large fleet of vessels to this port, which sent freights down. The wheat crop would have been very large, had it not been for the hot north winds in June that almost destroyed the crops in Colusa, Butte, Sutter, Yolo and other central counties. The year closed on a very strong market under light stocks in this State, at the East and throughout the civilized world. The outlook for good prices for 1887 could not be better.

The receipts at and exports from this port last year were as follows in centals:

	Receipts.	Exports.
January	1,133 443	1,168,233
February	1,714,520	1,810,546
March	1,300,445	1,669,553
April	1,139,721	1,036,035
May	1,187,823	829,564
June	811,500	1,156,720
July	702,775	754,422
August	1,256,058	853,080
September	2,102,995	1,841,998
October	1,369,763	1,255,766
November	1,940,979	1,888,474
December	1,227,013	1,567,764
Totals	15,887,037	15,832,155
1885	11,853,200	11,727,895

The exports of flour last year aggregated 1,108,754 bbls, which reduced to wheat gives 3,318,262 ctls, making a total export for the year of 19,150,417 ctls, equal to 957,526 short tons. The exports of wheat by sea last year were 635,748 short tons to Great Britain and 96,804 short tons to France. Of the latter shipments, all were made the last half of the year, excepting 6605 short tons. Of the flour exports, 469,385 bbls went to Great Britain, 421,498 to China and the remainder to Japan, Hawaiian islands, British Columbia, Society islands, Central America, Mexico, Panama, Australia, Saigon, Siberia, etc.

Barley.

The market ruled very strong and high up to June, owing to light supplies and a very large increased consumption owing to more railroad construction and a larger number of transactions in other trades. Published estimates of a very large crop in this State, placed at 900,000 tons, operated against the market as harvesting commenced, notwithstanding the RURAL PRESS' estimate in June was not over 400,000 tons. Prices in June opened low for new and fell below 90 cents for No. 1 feed, but when the crop was found not to be even 400,000 tons, together with a large consumptive and export demand, prices began to recover, which were still further advanced by dry weather and a very large short interest. The market closed the year very strong at $1.15 to $1.17½ for No. 1 feed. The supply held by farmers on farms is less than on January 1, 1886.

The receipts at and exports from this port last year were as follows in centals:

	Receipts.	Exports.
January	34,180	25,866
February	52,185	12,350
March	42,551	11,281
April	88,859	5,571
May	38,545	5,864
June	125,695	9,327
July	197,284	79,161
August	295,580	31,734
September	425,657	120,991
October	429,668	154,907
November	257,561	112,923
December	182,256	87,477
Totals	2,170,071	661,462
1885	1,014,490	185,297

There was also shipped overland 249,372 ctls, against 92,760 ctls last year. Of the exports, 391,151 ctls were exported to Great Britain, 8103 ctls last year. There was received from Oregon, etc., last year, 28,318 ctls, which was not included in the tabulated receipts.

Oats.

The market, under light supplies and a good demand, ruled high and very strong up to June, when an easier feeling set in, resulting in lower prices in July, which was followed by further declines into August. From August the market began to improve, with a slow increase in prices, which brought about higher rates at the close of the year. The crop of the coast is less than that of 1885, but the importation of Nebraska oats operated against values to some extent, notwithstanding their inferior quality.

The receipts last year were as follows in centals:

	Ctls.		Ctls.
January	769	July	17,372
February	940	August	36,035
March	1,360	September	18,300
April	2,103	October	19,317
May	4,660	November	5,980
June	3,177	December	12,322
Total			122,335
1885			157,895

The receipts from Oregon, etc., last year aggregated 379,957 ctls.

Corn.

The market ruled strong and high, under light supplies, up to harvest, since when lower prices have ruled. Heavy importations of western had to be made so as to meet the consumption, but, notwithstanding the large imports, September found us with only moderate stocks. Since harvest, low prices have prevailed; but the year closed with a steadier tone.

Receipts of California corn last year were as follows in centals:

	Ctls.		Ctls.
January	10,206	July	6,378
February	10,465	August	12,741
March	15,604	September	21,666
April	16,329	October	18,879
May	46,475	November	16,329
June	25,858	December	26,655
Total			227,785
1885			57,509

Rye.

The market has varied very little, owing to the light crop and still lighter consumption.

The receipts last year aggregated 24,424 ctls, against 61,301 ctls in 1885.

Buckwheat.

The market held steady throughout the year, due to the demand and production being about equal.

The receipts of last year aggregated 7688 ctls, against 2464 ctls in 1885.

Bags.

The market opened dull, weak and inactive, but under a concentration of stocks an advance began to manifest itself by March, which became more marked by published exaggerated statements of the prospective cereal crops. Prices were by May doubled, but as the true condition of the crops became known, together with freer outside selling, the "bag pool" had to lower prices, which by July were fully one-third less than the highest prices touched. Since then there was a gradual sagging to the close of the last month of the year. The market closed fairly steady at the lower prices

Hay.

The market ruled very high up to June under light stocks and a good demand. In June an easier feeling set in, which, as supplies came forward more liberally, resulted in lower price; but still choice to extra choice was well maintained by reason of the light crop of these grades, notwithstanding the crop of fair to good was the largest known for years. Dry weather and a large increased consumption kept prices fairly steady toward the close of the year, with a strong closing in December.

The receipts of hay and straw last year were as follows in tons:

	Hay.	Straw.
January	5,115	207
February	7,769	234
March	6,472	177
April	5,659	259
May	6,113	245
June	9,215	201
July	11,832	341
August	15,707	588
September	10,455	1,013
October	9,991	383
November	5,526	251
December	5,528	359
Totals	99,382	4,558
1885	79,779	3,634

Beans.

The receipts of beans last year were as follows in sacks:

	Sacks.		Sacks.
January	30,278	July	6,707
February	12,589	August	8,104
March	20,419	September	13,114
April	23,004	October	56,689
May	10,600	November	150,897
June	9,864	December	116,070
Totals			458,335
1885			330,600

Potatoes.

The market has held to strong and good remunerative prices throughout the year. The crop of 1886 was considerably below that of 1885, with the quality generally poor. These combined operated to maintain values, the last half of the year, with a higher range in December for the more choice varieties. Utah and also Oregon contributed to this market but slightly, owing to the light supplies to draw from in those markets.

The receipts of potatoes last year were as follows in sacks:

	Sacks.		Sacks.
January	82,846	July	75,687
February	81,902	August	74,342
March	77,146	September	94,918
April	49,344	October	103,661
May	59,828	November	97,377
June	73,617	December	94,181
Total			964,849
1885			923,629

There was also received from Oregon 116,734 sacks, and about 14,500 sacks from Utah.

Onions.

High prices and a good demand last season stimulated production, which gave a large crop for 1886, causing prices the last half of the year to rule low, but with a stronger closing under lessening supplies and a good demand.

The receipts of onions last year were as follows in sacks:

	Sacks.		Sacks.
January	5,746	July	11,912
February	4,556	August	13,979
March	3,041	September	18,354
April	2,723	October	15,264
May	8,914	November	9,020
June	11,943	December	9,063
Total			114,515
1885			83,874

Receipts from Oregon aggregated 4096 sacks.

Butter.

The market opened the year strong, but, under the best of pasturage, the production soon outran the consumption, which, as the season advanced, resulted in a lower range of values. Prices fell to such low figures that heavy packing was the result. For a time these steadied values, only to be followed by another drop when packing stopped. The stock of solid butter, and also pickled butter, was never known to be so large as they were at the close of the year, and this, too, in the face of a large increase in the consumption. The heavy stock caused low prices to obtain at the close, with a decided selling pressure setting in.

The receipts of butter last year were as follows in pounds:

	Californian.	Eastern.
January	516,600	56,400
February	749,500	47,200
March	1,027,400	62,200
April	1,115,000	11,800
May	1,208,900	38,400
June	1,072,100	105,700
July	728,600	73,400
August	708,300	101,500
September	973,600	54,500
October	943,900	48,600
November	494,200	16,500
December	412,400	11,400
Totals	9,955,500	627,800
1885	8,019,600	894,515
1884	10,780,300	535,250

From Oregon, receipts aggregated 53,400 lbs.

Cheese.

Receipts last year were as follows in pounds:

The market ruled strong throughout the year, with a strong closing, owing to a lighter production and a good demand.

	Californian.	Eastern.
January	178,100	49,700
February	207,800	31,300
March	424,500	68,700
April	523,800	33,600
May	568,000	44,000
June	424,500	18,600
July	427,500	15 000
August	336,500	43,800
September	357,100	49,300
October	294,400	80,000
November	247,800	77,000
December	113,400	37,100
Totals	4,103,400	548,100
1885	3,657,500	394,000
1884	6,440,300	475,510

From Oregon, 35,700 lbs were received.

Eggs.

By reason of low freights from the East, the receipts of western eggs were very heavy throughout the year, causing prices to rule low. Even at the low prices, values favored buyers, excepting during the hotter months, when choice or gilt edged eggs were in active demand and commanded quite an advance. The market closed the year weak and in buyers' favor.

Receipts last year were as follows in dozens:

	Californian.	Eastern.
January	127,200	22,500
February	185,140	.....
March	260,089	65,071
April	210,810	332,180
May	204,730	420,190
June	138,550	123,420
July	127,790	190,370
August	112,170	137,110
September	79,640	275,020
October	63,790	254,030
November	60,380	278,910
December	96,750	94,040
Totals	1,667,030	2,192,900
1885	2,778,281	1,774 515
1884	2,980,254	1,610,010

Receipts from Oregon aggregated 47,820 dozen.

Poultry.

The market for all kinds of poultry averaged higher than in 1885, with choice, well-conditioned fowls always in demand at an advance on the highest quotations. The consumption is said to be all of 25 per cent more than it was in 1885.

Live-Stock.

Owing to good pasturage and a mild winter, there were throughout the year heavy offerings of beef cattle and mutton sheep, with the prices averaging below those of 1885. The low prices even ruled up to the close of the year, which is something never before known. The increase in the number of cattle and sheep is said to be quite large. Hogs ruled strong up to harvest, since which time a lower range of prices have obtained in sympathy with lower prices for hog products, and also a free selling pressure. Prices ruled the last half of 1886 lower than for several years past. In horses there has been more trading, with an advance in prices toward the close of the spring, due to a good demand for draft horses for farm and also railroad work. In this city the demand has ruled good for single-footers and general utility horses, with good prices obtained. The year closed weak for draft horses, but firm for matched horses, general utility horses and single-footers.

Hops.

Under the low freights overland that obtained last spring, all the hops on this coast were sold and sent East. Considerable were sold as low as one cent per lb. As summer approached values began to appreciate, owing to reports of heavy damage to the crop in New York, and also a lighter crop on this coast and in Europe; and as these reports became verified, quite an impetus was given to values, sending them up to high figures for both old and new for future delivery. Many parcels bought in this market at from 1 to 2½ cents per lb. were sold at from 9 to 15 cents per lb. The crop of 1886 was placed at, on an average, from 22½ to 25 cents per lb. Up to the close of the year fully 45,500 bales were marketed, leaving only about 15,000 bales as a carry-over. The consumption is increasing quite steadily.

Seeds.

The mustard crop was unusually heavy, but the bulk was marketed at the East at fair prices. The market closed steady. In other seeds the demand proved less than in 1885, causing a lower range of values, with a larger carry-over stock at the close of the year.

Fruits.

The crop of small fruits was very large, but canners were liberal buyers, which kept prices fairly well maintained. Of the larger fruit, the crops were all large, excepting apricots. Owing to the light crop, apricots were bought up and prices advanced to high figures. The crop of cherries, peaches, plums, prunes, etc., was quite large, and, notwithstanding free shipments to the East, prices ruled, on an average, low. The crop of apples was very large, causing low prices to obtain. Considerable quantities of the pears and apples were wormy, and had to be sold at concessions to effect sales. The grape crop was unusually heavy, allowing heavy shipments to the East. At times our market, under heavy receipts, became glutted, and no reasonable offer was refused by dealers, so as to clean up.

The low freights to the East admitted of the shipping of oranges on a liberal scale, causing the market to be cleaned up at an early day at higher prices. The crop this year was larger than in 1885, but owing to a better outlet, prices are better maintained. The year closed the market in better shape than did 1885.

The overland shipments last year aggregated 22,793,989 lbs. of green fruits and 5,830,200 lbs. of dried. Of the green fruits, 19,413,700 lbs. were shipped from Sacramento and 2,211,200 lbs. from San Jose. Of the dried fruits, San Francisco shipped 327,680 lbs. and San Jose 1,861,800 lbs. While the rates on fruit to the East have been reduced since the opening of this trade, they are still considered rather exorbitant. The season's rates were as follows: Passenger time to New York, $800 per car; slow freight, $400; passenger time to Chicago, $600; slow freight, $300. The Sacramento Horticultural Convention, through a committee appointed for the purpose, endeavored to have the rates reduced as follows: Passenger train time to New York, Philadelphia and Boston, $400 per car; passenger train to Chicago, $300; slow freight to Chicago, $200; and that 10 cars comprise a $200 fruit train. While such sweeping reductions, it was stated, could not then be entertained, there was at the same time expressed a willingness to attach fruit cars to regular passenger trains as far as Chicago at $500 per car, or to carry freight at $250 per car. Further than this, the statement was made it would be necessary to get the concurrence of the Eastern lines. Subsequently, the Committee on Transportation appointed by the fruit-growers at the State Convention received information to the effect that the Union Pacific had agreed to pro rate on fruit transportation on any terms agreeable to the Southern and Central Pacific. Mr. Huntington then favored the $300 rate to Chicago, and $400 to New York, fast time, and 10-car trains. Arrangements could be made on that basis at San Francisco. These concessions on the part of the railroad companies will undoubtedly encourage fruit-shippers to largely increase their business next season with the Eastern markets.

Dried Fruits and Nuts.

Low freights to the East last spring allowed heavy shipments of dried fruits and nuts, which cleaned the market up of all kinds, advancing prices for the better kind, so that the new crop

came in on a bare market and at good prices. The crop of dried fruits, excepting prunes, was lighter than last year, which, with heavy orders from the East, caused higher prices to obtain than for several seasons past, with a strong closing at the close of the year. The nut crop, taken as a whole, was lighter than in 1885, which, with a good demand, caused higher prices to rule. Free importation of Chili walnuts operated somewhat against this variety, but at the close prices were stronger. The honey crop was larger and of better quality than that of 1885, but owing to stocks being well cleaned up, combined with a fair export demand, prices did not recede to the extent that it was claimed they would. The year closed on a dull but strong market, with light stocks and still lighter supplies to draw from. Beeswax ruled fairly steady throughout the year. In raisins there was a very large increased pack, with the quality very considerably above any former season. Owing to the better reputation of California raisins, there has not been any difficulty in working off the product at good prices, when compared with former seasons. Eastern commercial papers claim that California raisins will soon outrank the foreign and sell for more money side by side. The year closed on a fairly firm market, both here and at the East.

The following statistics and remarks relating to the dried fruit, raisin, prune, almond, walnut, peanut, comb and extracted honey crops of California for the year 1886, are from the annual circular of George W. Meade & Co., of this city.

THE PRODUCT OF 1886.

	Lbs.
Honey, extracted	6,000,000
Honey, comb	800,000
Beeswax	80,000
French Prunes	2,000,000
German Prunes	125,000
Apples, sun-dried	300,000
Peaches	750,000
Plums	500,000
Pears	50,000
Grapes	175,000
Apricots	150,000
Nectarines, sun-dried	30,000
Figs, sun-dried	150,000
Apples, evaporated	500,000
Apricots, evaporated and S. D. (bleached)	450,000
Peaches, evaporated (peeled)	100,000
Peaches, evaporated (unpeeled)	200,000
Plums, evaporated	85,000
Nectarines, evaporated	25,000
Walnuts	750,000
Almonds	600,000
Peanuts	275,000
Raisins, 20-lb. boxes	703,000

We estimate the total raisin product of 1886 at 703,000 boxes, and apportioned as follows:

	Boxes.
Fresno District	225,000
Tulare District	8,000
Riverside District	185,000
Orange and Santa Ana District	160,000
San Diego District	25,000
San Bernardino Co. (outside of Riverside District)	10,000
Yolo and Solano	75,000
Scattering—Yuba, Butte, Sacramento, etc.	15,000
Total	703,000

The raisin shipments overland for the first 11 months in 1886 were as follows in pounds:

From	Lbs.
San Francisco	1,479,230
Sacramento	1,712,070
Stockton	1,466,740
Marysville	93,470
Colton	1,019,960
Los Angeles	5,832,600
Total	11,604,070

Oranges.

The shipments of oranges out of the State overland were as follows in pounds:

	Lbs.
December, 1885	44,670
January, 1886	1,152,920
February	6,342,100
March	4,700,810
April	7,050,380
May	5,665,900
June	1,479,070
July	103,130
Total	26,538,980
1885	23,335,516

Of the shipments last year 21,360,320 lbs were billed from Los Angeles and 5,137,210 from Colton.

Vegetables.

The tomato crop was very large, but canners bought freely to fill heavy contract orders. The crop of other vegetables was quite large, but the consumption was free, which kept prices from going below 1885 prices.

Wine.

J. Gundlach & Co., of this city, have estimated the yield of wine in this State for 1886 at 19,500,000 gallons, credited to the following counties:

Counties.	Gals.
Napa	4,800,000
Los Angeles and San Bernardino	4,200,000
Sonoma	3,100,000
Fresno and San Joaquin	2,000,000
Santa Clara and Santa Cruz	1,700,000
Contra Costa and Alameda	1,200,000
Sacramento, Tehama and Solano	2,000,000
Placer, Yuba, Yolo and El Dorado	500,000
Total yield	19,500,000

About one-seventh has been converted into brandy. The season was favorable for a good return, and the result was up to the general expectation. Messrs. Gundlach & Co., in a circular issued by them, state: "The production of sweet wines has been much restricted, owing to low prices. Ports, sherries, etc., will therefore not be plentiful. The proportion of red and white wine will be as two to one. The abundant crop of light wines of 1884 has gradually found its way into the hands of the trade, and they seem to be well appreciated. There are no stocks of any consequence of 1884 and 1885 in growers' cellars. San Francisco merchants and shippers control the bulk of the stocks. Shipments overland and by sea last year were 5,217,246 gallons, of which quantity 5,063,413 gallons went to the Eastern States."

Wool.

The following review of the wool trade for the past year has been furnished by George Abbott, of the Wool Exchange:

Spring Clip Quotations—

Choice Northern (Humboldt and Mendocino)	22@25
Good Northern (Red Bluff, etc.)	19@21
Defective Northern	15@17
Good to Choice San Joaquin	15@18
Good San Joaquin (12 months)	15@17
Southern Coast	12½@15

Fall Clip Quotations—

Choice Northern (Humboldt and Mendocino)	20@22
Good Northern	15@18
San Joaquin	14@16
Heavy Northern and Southern	11@13

Oregon Quotations—

Choice Valley	23@25
Choice Eastern	20@23
Good Eastern	18@17

Freights During the Past Year—
Grease wool ½@1c per pound by rail.
Grease wool 1c per pound by sailing vessel.
Grease wool $3@5 per ton by steamer.
Scoured wool ½@1½c per pound by rail.
Scoured wool $3@5 per ton by steamer.

Stocks are mostly Fall wool from Northern counties.

WOOL PRODUCTION.

Receipts at San Francisco.	Bags.	Receipts at San Francisco.	Bags.
January	282	July	8,100
February	35	August	4,969
March	2,111	September	12,199
April	15,140	October	17,469
May	16,655	November	3,516
June	12,832	December	932
Total			94,240

	Pounds.
Spring wool, 59,124 bags	18,328,440
Spring wool shipped from interior	4,984,330
Total spring production	23,312,770
Fall wool, 35,116 bags	11,763,860
Fall wool, shipped from interior	1,734,630
Total fleece wool	36,811,260
Pulled wool shipped from San Francisco and interior	1,697,900
Total production of California	38,509,160
On hand December 31, 1885	2,000,000
Received from Oregon, 21,565 bags	6,469,500
Foreign wool received, 493 bags	246,500
Grand total	47,225,160

EXPORTS.

Per rail, including shipments from interior	31,073,520
Sailing vessels	499,681
Steamers	3,011,249
Total shipments	34,583,450
On hand December 31, 1886, about	4,500,000
Value of exports	$5,500,000

N. B.—Difference between receipts and exports arises from consumption of local mills and wool on hand awaiting shipment in the grease or scoured. Foreign wool is chiefly from Australia in transit to Eastern markets. The weights of above are gross. The tare on bags received is 3 lbs. each.

PRODUCTION FOR A SERIES OF YEARS.

	Lbs.		Lbs.
1854	175,000	1871	22,187,200
1855	300,000	1872	24,255,500
1856	600,000	1873	32,155,200
1857	1,100,000	1874	39,356,800
1858	1,428,000	1875	43,532,200
1859	2,378,000	1876	56,551,000
1860	3,055,375	1877	53,110,700
1861	3,721,998	1878	40,862,100
1862	5,990,300	1879	46,904,400
1863	6,268,480	1880	46,074,200
1864	7,923,670	1881	43,204,800
1865	8,949,931	1882	40,527,100
1866	8,532,047	1883	40,848,700
1867	10,288,600	1884	37,415,300
1868	14,232,657	1885	36,561,300
1869	15,413,970	1886	38,509,200
1870	20,072,660		

Goats for Milk.

EDITORS PRESS:—Please inform me what kind of goats are the best for milk, and where they can be had. OLD SUBSCRIBER.

Who has goats for milk and who will write us about them?

A FINE FLOODGATE.—Our friend L. F. Moulton, of Colusa, has been building a two-arched floodgate, 12 feet wide, which he regards as the finest in the State. He expects it to carry water enough, six feet deep, from the river just below Butte City, to irrigate throughout the year a vast extent of outside land belonging to himself and others. As it is in a very deep slough, its completion will involve but a small outlay.

OREGON WHEAT FIELDS never looked better at this time of year than they now appear—so says the *Willamette Farmer* of the 7th instant.

THE VINEYARD.

Experiments on Methods of Fermentation.

University Experiment Station, Bulletin No. 63.

In view of the great interest attaching to the determination of the effect of various methods of fermentation upon the resulting wines, a series of experiments with one and the same kind of grape, treated differently both in respect to temperature and the appliances used, was carried out at the Viticultural Laboratory with the results given below.

These experiments were all conducted within the limits of temperature adapted to "high fermentation," since the question of how best to manage the fermentation at the prevailing vintage temperature of California is the one having the greatest practical interest. As no means were at hand for maintaining a temperature sufficiently low for "low fermentations," proper, these were omitted, but it is intended to arrange for such experiments next season.

It should be distinctly understood that these few experiments were selected from the large number of possible ones, in order to test the influence of certain conditions upon the composition and quality of red wines, so as to deduce therefrom principles that shall apply to large as well as small-scale practice, when allowance is made for the known difference of circumstances in each case.

The grapes used are a very good article of second-crop Zinfandel, courteously donated by Mr. J. Gallegos, of Mission San Jose. About one and one-sixth tons were sent, in University basket crates. They arrived in excellent condition; the berries were rather small and the bunches quite loose, but thoroughly sound; taste agreeably sweet, and juice abundant. The composition of the latter was as follows:

Solid contents by spindle	21.05
Sugar by copper test	19.75
Acid	.65
Ash	.27

Nine different samples were fermented, under the following conditions:

(A.) In a hot chamber kept at a temperature ranging from 98 degrees to 102 degrees, two batches of about 63 pounds each; one (No. 557) left entirely open in the tub; the other (No. 556) covered with a "floating top" that rose and fell with the pomace, screening it from access of air. Both were subjected to "foulage" or stirring.

(B.) In a room kept at a temperature ranging from 72 degrees to 75 degrees: five 50-gallon tanks, each charged with about 230 pounds, nearly filling the tanks, and arranged as follows:

No. 558. Mash put in in three successive portions, kept separate by a lattice framework wedged in place, thus forcibly keeping the pomace submerged and divided into three separate portions—according to Perret's system; the uppermost frame being about two inches below the surface of the must before fermentation. Tank covered.

No. 559. Mash put in at once and the pomace kept submerged about two inches by means of a single Perret's frame, as practiced to some extent at Fresno and elsewhere; no cover.

No. 560. Mash left uncovered aad subjected to frequent "foulage" or stirring, at least three times a day, during fermentation; a common French and Californian practice.

No. 561. Mash covered with a "floating cover," rising and falling with the pomace, any froth on upper side being washed off; stirred three times a day; a French method, and adopted at the Viticultural Laboratory.

No. 563. Grapes put in whole, stems and all, to be gradually crushed by means of a cross-peg stirrer, used energetically three times a day; no cover. A Burgundy method, used at several California wineries; known as "Morel process."

No. 564. A tub charged with about 140 pounds of mash, and then left to itself, cap, vinegar-flies and all; without stirring or cover; the old Californian, or "go-as-you-please," method.

(C.) In the cellar of the laboratory kept at a steady temperature of 62 degrees.

No. 562. Fifty-gallon tank charged like the rest with 230 pounds of grape mash, provided with a "floating cover," and stirred three times daily.

In all cases the temperature was ascertained thrice daily; during the hight of fermentation every few hours; and in the tanks provided with frames the temperature of the top liquid, and of the pomace beneath each frame, was taken separately, in order to follow the exact course of fermentation. Similar observations were made every morning in the tanks subjected to stirring, so as to ascertain the temperature of the top and bottom layers of the pomace cap formed during the night, and that of the liquid beneath.

The details of the fermentations, however instructive, are too lengthy to be given in this place, and will be found fully recorded in the forthcoming report for the year 1886. It need only be said that while No. 556, fermenting at 100°, went dry within 48 hours, No. 562, at 62°, required ten days. Of the rest, No. 560, the open tank subjected to frequent stirring, went through most rapidly and energetically.

Composition of the Wines.

The table below shows the composition of the wines resulting from the several fermentations. They were all analyzed, and their color determined, within a few days after pressing, the murk being filtered for the purpose.

Composition of Wines Produced by Different Methods of Fermentation.

Number.	SAMPLE.		Alcohol. By Weight.	Alcohol. By Volume.	Acid as Tartaric.	Tannin.	Color. Intensity.	Color. Tint.
556	Foulage, with floating cover	T. 96—100	7.78	9.73	.49	.14	15.4	purple-red
557	Foulage, without cover		7.78	9.73	.59	.13	12.4	purple-red
558	Three Perret's Frames		7.76	9.73	.49	.11	30.0	purple-red
559	Single Perret Frame		7.23	9.00	.51	.10	27.8	purple red
560	Foulage, no cover	T. 72°—75°	7.28	9.72	.65	.10	46.4	purple-red
561	Foulage with floating top		7.28	9.73	.53	.12	47.6	purple-red
563	Morel Process		7.16	8.93	.97	.13	47.6	purple-red
564	Old style, no cover nor foulage		7.06	8.85	.56	.12	40.6	purple-red
562	Foulage and floating top. T. up. 62°		7.78	9.73	.56	.12	34.1	purple-red

As regards, first, the *alcoholic contents* of the several wines, it will be noted that the same percentage was obtained in six out of the nine; while three, viz., Nos. 559, 563 and 564, corresponding respectively to the single-frame, Morel, and "old-style" processes, show a deficiency which does not differ widely for the three, being not quite one per cent.

In the single-frame process, a relatively thin layer of liquid was exposed to the air, constantly agitated by the gas coming from below, and heated by its position just over the hot cap. The alcohol simply evaporated from this isolated portion of the wine, and where this mode of fermentation is practiced on the large scale I have sometimes found this layer so warm that toward the end of the fermentation the bulk of its alcohol was gone and it had a vapid, flat taste, often more of vinegar than of alcohol.

In the case of the old-style process, also, it is easy to see where the loss of alcohol occurs. It is here the hot pomace cap, offering a large surface to the air and kept drenched with the fermenting liquid by the bubbling up from below, which assists the evaporation. That the latter is accompanied by its transformation into vinegar is apparent to the nostrils so soon as the first violent stage of the fermen ation is past.

In the case of the "Morel process," the cause of the loss of alcohol is not so obvious. It must be partially accounted for by the abundant stirring and high temperature; but it is possible that from some cause a part of the sugar may have been converted into some other compound than alcohol.

A somewhat unexpected result is the fact that the two hot fermentations (556 and 557) yielded the same amount of alcohol as those fermented at a much lower temperature. The obvious explanation is, that the short duration of these fermentations balanced the influence of the high temperature as compared with those in the slower fermentations, in which the opportunity for evaporation lasted longer. It will be highly interesting to compare, hereafter, the other products formed alongside of the alcohol in the three sets of fermentations.

As regards, next, the *acid* of the several wines, it is not unexpected to find that the open *foulage*, No. 560, on the one hand, and the Morel process on the other, have given the highest figures; the one because of the constant access of air, the other from the same cause, in addition to the extraction of acid from the stems.

The lowest figure for acid (.49) is given by Nos. 556 and 558, the hot fermentation with cover, and by the one with the three submerged frames. In the case of the latter this was to be looked for, and is precisely one of the chief advantages claimed for Perret's method. In the case of the former it is somewhat unexpected, and is the more instructive in contrast to No. 557, the hot fermentation in which no cover was used, and in which the acid is one pro-mille higher. Almost precisely the same difference occurs in the fermentations made at the lower temperature, one with the floating cover on (No. 561), and the other (No. 560) without cover. The beneficial influence of the cover in preventing the formation of acid during fermentation is therefore placed beyond question.

It should, however, be added, that in none of the fermentations made, there is at this time (Nov. 24) a notable amount of volatile (acetic) acid. This is true even of No. 564, the "old-style" one, in which the odor of vinegar was abundantly obvious before pressing. It shows the odor of vinegar plainly in boiling, but the amount is at present less than five thousandths of one per cent.

It is somewhat remarkable that the fermentation No. 562, made at the lowest temperature, should yield a relatively high proportion of

acid, exceeding that found in the fermentation made under the same conditions at a higher temperature. Whether this is to be accounted for by the longer duration of the low-temperature fermentation, remains to be investigated.

Considering, next, the matter of *tannin*, we note at a glance the influence of the high temperature in aiding a complete extraction. The two hot fermentations, Nos. 556 and 557, have given the maximum of tannin, despite their short duration; more even than in the case of the tank with diligent open *foulage*, and as much as the Morel process, stems and all, which was continued for 11 days; the effect in this case is so marked as to leave no doubt of the influence of this factor, and in it lies, probably, at least a part of the explanation of the fact that the hot parts of our State have yielded more tannin in their red wines than the cooler ones.

The two tanks in which the frames were used (Nos. 558 and 559) present a curious problem. In both cases the same amount of tannin was taken up, although in the one the pomace was in a solid mass, and in the other was kept diffused all through. The result is disappointing as concerns the three-frame process, and shows clearly why, despite its apparent advantages, this method of treatment has not been widely adopted, even in France. It is evident that simply keeping the pomace in the liquid cannot replace the grinding and disintegrating action of the direct stirring or *foulage*, so far as the extraction of tannin and color are concerned; for a glance at the color column shows that the deficiency of tannin is accompanied by a similar relative deficiency of color, as compared with the tanks that were stirred. The same holds of the single-frame fermentation, where the color is even less; and the fact that an even amount of tannin was extracted, notwithstanding the pomace was in a solid mass at the top, is explained by the high temperature which, as the record shows, prevailed in that cap. The same consideration doubtless applies to the "old-style" (No. 562), in which the high temperature of the pomace cap offset the lack of stirring, and both tannin and color were fully extracted.

A singular and unexplained fact is the deficiency of tannin in the tank with open foulage, without cover, for which no obvious cause can be assigned; the duplication of the determination, however, leaves no doubt of the fact, which can hardly be explained without assuming that some of the tannin at first extracted was subsequently destroyed by the action of the air. If this were so, the full complement of tannin in the "Morel" product might be explained by the presence of the astringent stems.

The column giving the color-intensities is very instructive also. It will be seen that those yielding a low color were the two tanks with frames, already discussed, and the low-temperature fermentation, No. 562, in which, despite diligent stirring, and the pretty full extraction of tannin, that of the color remained incomplete, being nearly one-third less than the maximum.

The full discussion of the bearings of these fermentation experiments is perhaps best deferred until the development of the wines, and their full analysis in their more advanced condition, shall give more data in regard to the final results of the several treatments. Those familiar with the subject of fermentation may, however, already derive important lessons from what is recorded above. Of course, these results must be verified by repetition the coming season, before they can be accepted as maxims; but there is much that cannot well be upset by any subsequent experiments. Among the points that may be considered well settled is that the method of fermentation adopted by this department (viz.: floating cover, with thrice daily stirring,) is amply justified by the outcome of the nine fermentations. It secures all the advantages of aeration, full extraction of tannin and color, and maximum of alcohol, without any risk of acetification if properly managed. The method has been carried out on the large scale by Mr. John Gallegos for two years past, and has yielded excellent results; the only difficulty encountered being that in the case of very soft-skinned grapes, the frequent stirring reduced them to a pulp which it was difficult to press. In such cases the stirring must be moderated and made with implements having the least crushing effect; but I am satisfied that in the hot vintage climate of California, the leaving-open of fermenting tanks to the access of air is most objectionable, is one of the most common and prominent causes of unsoundness, and should be done away with universally, adopting either the use of floating covers, or at least a cover over the top of the tank. Whether the disadvantages of the single-frame system can be overcome by a repeated pumping-over of the liquid from below over the pomace, is a question yet to be determined; but that in the use of this method there is always a serious loss of color and tannin, can hardly be doubtful.

Regarding the quality of the wines resulting from the several processes, but little can as yet be definitely said. However, the unanimous verdict of those who have thus far tasted them is to the effect that the product fermented at 62°, though light-colored, is the best, and that rushed through within 48 hours beyond comparison the poorest, being flat and without character. Time alone, however, can definitely determine the ultimate outcome.

E. W. HILGARD.

Berkeley, Jan. 6, 1887.

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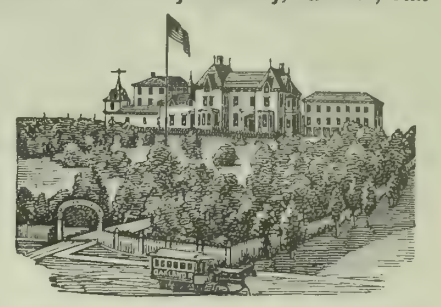
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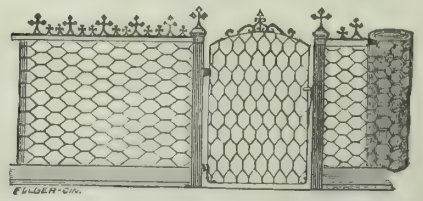
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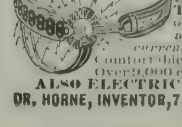
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The extension of the Southern Pacific Railway from Soledad southward traverses these lands for 15 miles throughout their entire length, placing the property within eight hours of San Francisco.

These lands are offered at from $10 to $30 an acre, and are all susceptible of the highest cultivation. In salubrity of climate, productiveness of soil and location as to market, they are equal to lands in Los Angeles and other counties, which readily bring from $100 to $200 and upward; and as to price and terms, offer the best inducements to those seeking homes on any part of the Pacific Coast. The survey of the

PASO ROBLES RANCH

Has been completed. The maps and catalogues are now ready, and will be sent free on application.

This ranch, containing 20,400 acres, has been subdivided into 230 lots. It is 12 miles from the sea coast, and is 20 miles north and west from San Luis Obispo city.

This ranch was one of the earliest granted by the Mexican Government and having been held by the same party for over 30 years, has never before been offered for sale. It consists exclusively of land of the choicest character, and is second to none in the State for the production of wheat, wine, fruits, raisins and olives.

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TERMS OF SALE.

One-third cash; balance in 4 equal payments at 2, 3, 4 and 5 years; interest, 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser. A deposit of $25 will be required in all cases to cover expenses of sale.

C. H. PHILLIPS, Manager,

West Coast Land Co., San Luis Obispo, Cal.

☞Send for Catalogue and Map.

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BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R. towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now being constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

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Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied to colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. Nearly one-half already sold.

Price, $22 to $40 per acre, on very easy terms to actual settlers.

☞For further particulars call on or address

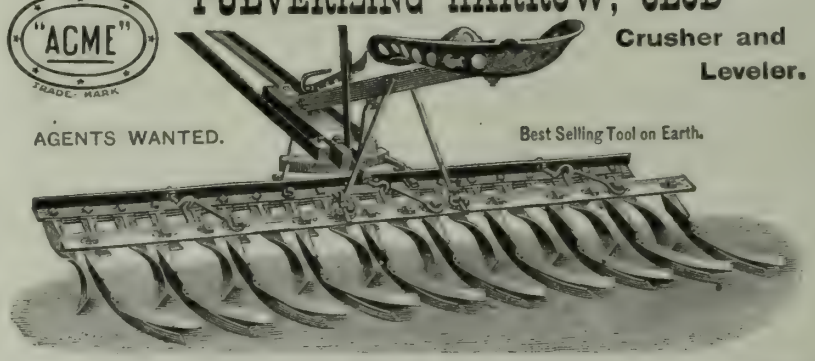
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G. B. Adams & Son, San Gabriel, Cal.; Arthur W. Bull, San Francisco, Cal.; Staver & Walker, Portland, Or., and Walla Walla, W. T.

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Is the most Thorough Implement invented for the Cultivation of the soil. It will save its cost many times in a season.

READ WHAT A PROMINENT COLUSA RANCHER SAYS OF IT:

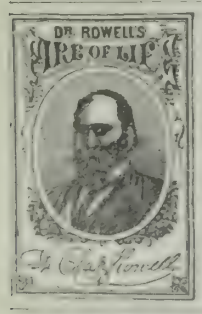
COLUSA, April 4, 1886.

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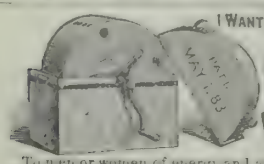
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James Lick.

At Rest in the Pier of the Great Telescope.

On Oct. 1, 1876, more than a decade ago, James Lick, the philanthropist, died in San Francisco, and was temporarily entombed in the Masonic cemetery. Since that time the various benefactions provided for in his will have been carried forward, and the greatest of them all, the Lick Observatory at Mt. Hamilton near San Jose, is very near completion. According to an arrangement made before Mr. Lick's death, Mt. Hamilton was selected as the permanent resting-place for his remains. This was not by his direction, and it must not be thought that he had any vain idea of securing a lasting monument for himself in his establishment of the Observatory. It was thought fitting by his friends that his tomb should be the solid pier of masonry upon which will rest the magnificent telescope which he has given to the people of this State—the greatest telescope the world has thus far seen. Last week the remains of Mr. Lick were removed from San Francisco to Mt. Hamilton and are now safely inclosed as was planned 10 years ago. The final burial was conducted with simple ceremonies, as will be described.

The remains were taken from San Francisco to San Jose by rail on Saturday, January 8th,



JAMES LICK, PHILANTHROPIST.

with an escort of gentlemen representing the various institutions which have been intrusted with the management of Mr. Lick's benefactions. San Jose was reached at 11 A. M., a procession of citizens of San Jose followed the remains to the borders of the city, and thence to the mountain the body was accompanied by those who went from this city and by the Mayor of San Jose. The mountain-top was reached at about 5 o'clock P. M., and the party proceeded at once to the rotunda, where the casket was opened and the remains identified by Capt. Fraser and others. They then proceeded to the library, where Prof. Davidson read the memorial document of identification as follows:

This is the body of JAMES LICK, who was born in Fredericksburg, Penn., August 25, 1796, and who died in San Francisco, Cal., October 1, 1876.

It has been identified by us and in our presence has been sealed up and deposited in this foundation pier of the great equatorial telescope this ninth day of January, 1887.

In the year 1875 he executed a deed of trust of his entire estate, by which he provided for the comfort and culture of the citizens of California, for the advancement of Handcraft and Rede-craft among the youth of San Francisco and of the State; for the development of scientific research and the diffusion of knowledge among men, and for founding in the State of California an astronomical observatory to surpass all others existing in the world at this epoch.

This observatory has been erected by the trustees of his estate, and has been named the Lick Astronomical Department of the University of California, in memory of the founder.

This refracting telescope is the largest which has ever been constructed, and the astronomers who have tested it declare that its performance surpasses that of all other telescopes.

The two disks of glass for the objective were cast by Ch. Feil, of France, and were brought to a true figure by Alvan Clark & Sons, of Massachusetts.

Their diameter is 36 inches, and their focal length is 56 feet 2 inches.

Upon the completion of this structure the Regents of the University of California became the trustees of this Astronomical Observatory.

The Board of Trustees of the Lick estate:
RICHARD S. FLOYD, President.
E. B. MASTICK.
CHAS. M. PLUM.
GEORGE SCHONEWALD.

The President of the Board of Regents of the University of California and Governor of the State of California.
WASHINGTON BARTLETT,
(by J. W. Winans.)

The President of the University of California and Director of the Observatory.
EDWARD SINGLETON HOLDEN.

The President of the California Academy of Sciences and of the council thereof.
GEORGE DAVIDSON.

The President of the Board of Trustees of the California Academy of Sciences.
GEORGE E. GRAY.

The President of the Society of California Pioneers.
GUSTAVE REIS.

A Director and ex-president of the Society of California Pioneers.
PETER DEAN.

The Mayor of the City of San Jose.
C. W. BREYFOGLE.

The preparation of the above document was assigned to Professor George Davidson. It was approved and then engrossed in handsome style with India ink on fine parchment. A notable feature of the document is the use of the words "handcraft" and "rede-craft," being the old English terms for technical education. The words are certainly most appropriate, although long since fallen into disuse and not being found in the latest dictionaries.

After the signatures given above were affixed, the document of identification was inclosed between two finely tanned skins, backed by black silk and soldered in a leaden box 18 inches long and of the same width and one inch in thickness. It was placed upon the iron casket, after which the lining of the oaken casket was soldered up air-tight and the oak lid screwed down. The casket was then draped with an American flag, and it was left in charge of a watchman until the following morning.

On Sunday morning at 11 o'clock the gentlemen who had escorted the body to Mt. Hamilton ascended the gang-plank leading to the foundation-stone, and, arranging themselves around the vault, now containing the casket, with uncovered heads, were addressed by the president of the Lick Trustees, Captain R. S. Floyd, in the following words: "*Gentlemen:* We are here to place the remains of James Lick in their final resting-place beneath this stone foundation of the pier upon which will be mounted the great telescope that he has given to California and the world of science.

"Mr. Lick left no positive instructions as to the disposition of his remains. The idea of making this place a tomb for his body did not enter the motive of his munificent bequest which has created this great work. The idea was suggested to him long after he made his trust deed, and it met with his approval.

"The trustees have concluded, with the approbation of his son, John H. Lick, now in Pennsylvania, to place his remains in this pier, believing that the most powerful telescope so far made in the world will make his most appropriate monument, and this commanding site overlooking his California home his most fitting resting-place."

At the conclusion of the president's remarks, workmen placed strong iron bars upon the abutments of the vault, upon which was placed heavy iron sheeting. The vault was then built with brick and mortar to the level of the foundation-stone.

A great stone weighing two and one-half tons was then swung, being already suspended for the purpose, and let slowly down upon the brickwork, beneath which was the casket. Three other stones of the same weight were then placed in position, when the four were bolted by suitable bolts, running down to the foundation five feet. On top of the stones will be set the first section of the iron pier of the great telescope. The iron pier itself will weigh about 25 tons and will be about 30 feet high. The mounting of the telescope, the tube and everything connected with it, will weigh 10 tons more.

As many of our readers have come to the State during the last 10 years, and have not, perhaps, seen a portrait of Mr. Lick, we give herewith an engraving from a photograph taken some little time before his death.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.

DATE. Jan. 6-12.	Portland. Rain	Temp.	Wind.	Weather.	Red Bluff. Rain	Temp.	Wind.	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S.Francisco. Rain	Temp.	Wind.	Weather.	Los Angeles. Rain	Temp.	Wind.	Weather.	San Diego Rain	Temp.	Wind	Weather.
Thursday	.22	50	Nw	Cy.	.00	67	Nw	Cl.	.00	57	S	Cl.	.00	67	N	Cl	.00	72	W	Cl	.00	67	Nw	Cl.
Friday	.03	46	Nw	Cy.	.00	61	N	Cl.	.00	59	Nw	Cl.	.00	55	E	Cl.	.00	62	SE	Cl.	.00	61	SW	Fr.
Saturday	.00	41	N	Cl.	.00	53	N	Cl.	.00	51	Nw	Cl	.00	56	NE	Cl	.00	60	SW	Cl.	.00	60	Nw	Cl.
Sunday	.00	37	S	Cy	.00	52	N	Cl.	.00	48	Nw	Cl.	.00	55	NE	Cl	.00	63	E	Cl.	.00	60	Nw	Cl.
Monday	00	43	SE	Cy.	.00	53	N	Cl.	.00	49	Nw	Cl.	.00	52	NE	Cl.	.00	62	S	Cl.	.00	57	Nw	Cl.
Tuesday	.00	50	S	Cy.	.00	49	S	Cy.	.00	52	SE	Cl.	.00	53	SE	Cl.	.00	64	Nw	Cl.	.00	57	W	Cl.
Wednesday	.30	48	S	Cy.	.—	54	SE	Fr.	.—	57	S	Cl.	.—	55	W	Fr.	.00	57	SE	Fr.	.00	57	SE	Fr.
Total	.55	....	..	..	[a] —	....	..	....	.—	....	..	....	.—	....	..	..	00	....	..	..	00	....	..	..

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

How to Save Money.

Wherever you live, you should write to Hallett & Co., Portland, Maine, and learn about work that you can do while living at your own home at a profit of at least from $5 to $25 and upward daily. Some have made over $50 in a day. All is new. Either sex. All ages. Hallett & Co. will start you. Capital not needed. All particulars free. Send along your address at once and all of the above will be proved to you. Nothing like it ever known to workingmen.

It Should Always be Borne in Mind

That time is the only really impartial test of genuine merit, and that according to the universal law of "the survival of the fittest," few sewing machines have withstood this test. Therefore, the only safe thing to do is to buy what time has proven to be the fittest"—the "DOMESTIC" SEWING MACHINE.

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Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

A Blessing.

Nothing adds more to the security of life, of happiness, and of health, than a safe and reliable family medicine. S. L. R. has won for itself the appellation of "the family blessing." If a child has the Colic, it is sure, safe and pleasant. If the father is exhausted, overworked, debilitated, it will restore his failing strength. If the wife suffers from Dyspepsia, Low Spirits, Headache, it will give relief. If any member of the family has eaten anything hard to digest, a dose of the Regulator will soon establish good digestion. It gives refreshing sleep even in cases where narcotics have failed. It is a preventive, perfectly harmless, to begin with, no matter what the attack, it will afford relief. No error to be feared in administering; no injury from exposure after taking; no change of diet required; no neglect of duties or loss of time. Simmons Liver Regulator is entirely vegetable and is the purest and best family medicine compounded. J. H. Zeilin & Co., Philadelphia, Pa., sole proprietors.

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Feb. 26—Live-Stock, Dairy and Poultry Edition,

With engravings of different breeds of stock, and sketches of recent California progress in all departments of the very important animal industry.

March 19—Southern California Edition.

An issue devoted to the progress and development of our southern counties, with engravings of scenery and buildings, maps and statistics of the wonderful growth in settlement and industry.

April 2—Haymakers' and Harvesters' Edition.

In this issue there will be descriptions of the novel and interesting methods and appliances which are original here and characteristic of California enterprise and inventive skill.

May 7—Settlers' and Tourists' Edition,

With information concerning the various immigration societies, statistics of settlement and experience of new comers. The edition will be ornamented with engravings of California scenery and descriptions which will be grateful to the tourist and traveler.

June 4—Educational Edition.

This edition is intended to set forth interesting facts concerning the splendid educational system of California, including both public and private schools and colleges. Illustrated with engravings of leading institutions, etc.

July 2—National Patriotic Edition,

With articles of patriotic tone, illustrated with spirited engravings of national character and fit to awaken and promote loyalty to our grand national institutions.

By the above, and other enterprising efforts on the part of the editors and publishers, we intend to make the PACIFIC RURAL PRESS still more attractive for 1887.

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A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. 20,000 acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

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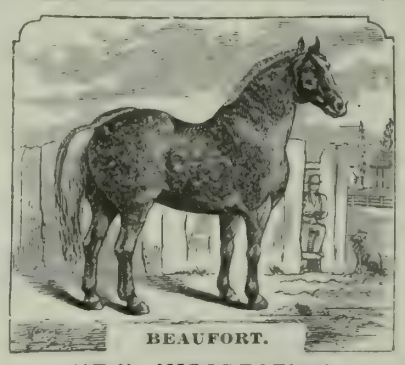
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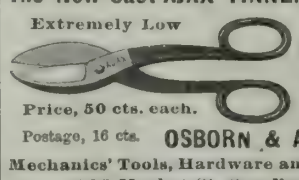
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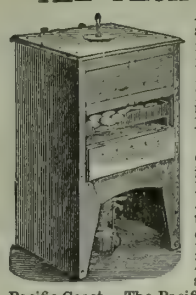
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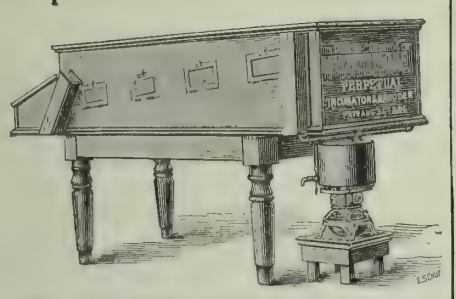
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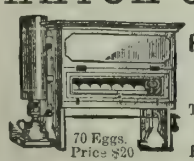
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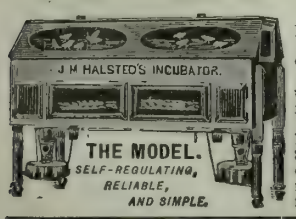
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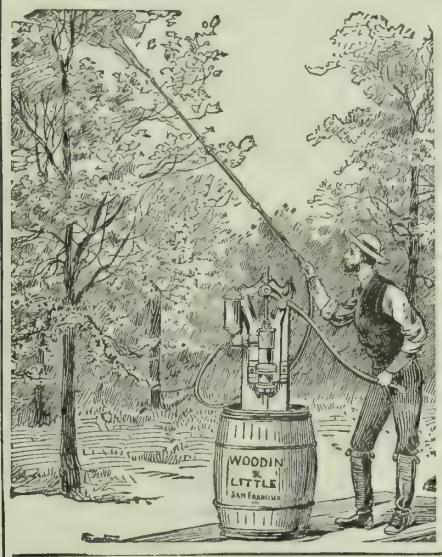
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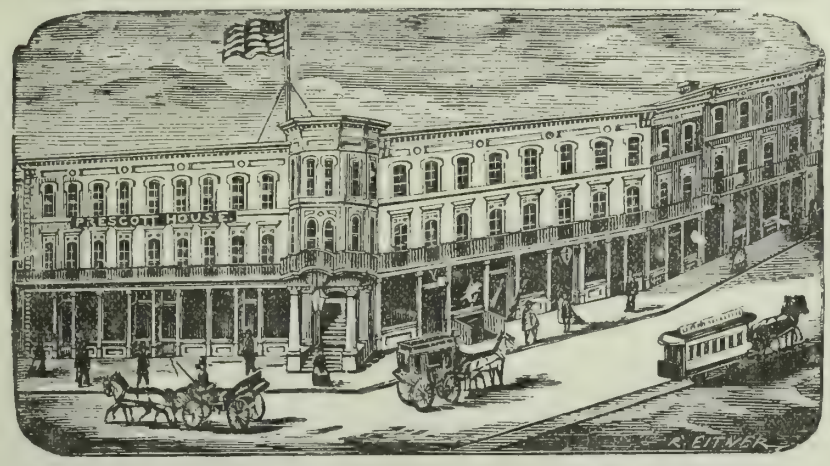
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S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 12, 1887.

The past week passed without any features deserving of special notice. Cereals weakened off, but at the close were stronger. Wheat abroad has been reported easy, but to-day a better tone reported. To-day's cable is as follows:

LONDON, January 12, 1887,—Cargoes off coast, nothing offering; cargoes on passage and for shipment, buyers hold off; Mark Lane, quiet; California wheat, off coast, 38s; California wheat, just shipped, 38s 9d; California wheat, nearly due, 37s 9d; English country market, turn dearer; French country market, turn dearer; Liverpool wheat, spot, very dull; Liverpool wheat, California, 7s 5d to 7s 8d; weather in England, wet.

Foreign Review.

LONDON, Jan. 10.—The *Mark Lane Express*, in its review of the British grain trade during the past week says: The trade in English wheat has been inactive, but values have been maintained owing to supplies being limited. The sales of English wheat during the week were 30,817 quarters at 35s 4d, against 39,961 quarters at 29s 10d during the corresponding week of last year. Flour is steady. Foreign wheats have rather slackened off during publication of the London stocks, which show an excess over the general estimate. The increased quantities afloat, combined with the continued accumulations in America, also had their influence on prices. At to-day's market wheats were quiet. Flour was quiet. Oats 3@6c higher.

Eastern Wool Markets.

BOSTON, Jan. 8.—The sales of all kinds of wool during the past week have been 3,818,100 pounds. Transactions in domestic wool show considerable increase over the previous week. This is usually a quiet week, stock-taking and the settling of the year's accounts occupying considerable time of the dealers. Business would have been larger but for the moving of two of the most prominent houses in the trade. The market has been enlivened by the presence of a number of manufacturers and a more favorable tone of advices from abroad. The week has shown a steady and firm market, with some slight concessions of fractions of cents granted to move large lines, but without any material change in the prices. At the close, holders were firm in their views and felt encouraged at the situation. In spring California, no sales of consequence have been reported, and stocks are small. Fall California has been moved quite freely, one lot of 300,000 pounds and another of 50,000 pounds having been sold on private terms. Oregon wool is quite active. Sales have been reported of 60,000 pounds valley, at 28c; 20,000 pounds valley at 25c; 30,000 pounds Eastern at 20@21c; 15,000 Eastern at 16@17c; and 205,000 pounds on private terms. The receipts of the week have been 4169 bales of domestic and 1284 bales of foreign, against 5682 bales of domestic and 1274 bales of foreign, for the corresponding week last year.

NEW YORK, Jan. 9.—The wool market has remained steady and unchanged. There are believed to be no stocks of importance in the interior. The transactions of the week were in moderate lots, but make a considerable total. The amount of domestic wool in New York, on January 1, was 6,918,000 pounds, including California spring, Oregon R. C., 422,000 pounds; fall, 450,000 pounds, and 10,755,000 pounds of foreign; total, 17,673,000 pounds. The total stock of domestic wool at Boston on January 1st was 26,251,000 pounds, including 811,000 pounds of California spring, 2,302,000 pounds of California and 1,959,000 pounds Oregon. Total stock of foreign, 2,449,000 pounds. Total, 28,695,000. Quotations: California spring, 12@24c; territory, 22@28c. The Philadelphia market has shown increased activity, particularly in low and medium wools. Among sales were 115,000 territory at 21@26½c, 50,000 pounds fine territory at 18@19c, 30,000 pounds fine medium at 24c, and 27,000 pounds fine medium Montana at 26@27c. At Philadelphia, sales included 1500 pounds California low at 15c, 3000 pounds medium territory at 20c, and 4000 pounds medium territory at 25@26c.

PHILADELPHIA, Jan. 11.—Prices are steady and unchanged, with an improved demand for low and medium wools.

BOSTON, Jan. 11.—Wool is firmer. Michigan X, 32c; Ohio, 34c; No. 1 combing, 40@41c; fine delaine, 34@37c. Other kinds are unchanged.

NEW YORK, Jan. 11.—The wool market is steady, but quiet. Domestic fleeces, 30@38; pulled wools, 14@35; Texas 9@29c.

Dried and Canned Fruit at the East.

CHICAGO, Jan. 9.—California oranges were noticed on the market here yesterday, and are sold at $3.50 per half box. The market is rather weak for oranges in general, there being plenty on hand of all varieties, while the sales are rather slow. Prices for dried fruits are quoted steady and firm for all lines of domestic fruit; at the same time the market rules rather quiet. The arrivals are such that the offerings remain small. Prices remain about steady for all California varieties, with the exception of raisins, which are quoted easy at a price a shade lower than last mentioned. Quotations are as follows by the pound: French prunes, 10½@11¼c; pitted prunes, 11@13c; halved peaches, 12@14¼c; peaches, halved and pared, 25c; nectarines, 9c; and pears 8½c. Raisins per 20-pound boxes each: London layers, $1.55@1.60; loose Muscatels, $1.35@1.40.

NEW YORK, Jan. 9.—In canned goods, the past week, the principal feature of interest has been the sudden increase in the demand for corn. Packers are now open to contracts for next season's growth, and buyers are in the market to cover anticipated wants and already some 15,000 cases of Maine corn have been contracted for at $1.25 f. o. b. Tomatoes are firmer. Canned peaches are dull but strong. California pears, $2.50@3.25. Raisins are more active and firmer. Two-crown, loose Muscatel, $1.40@1.45; London layers, $1.90@1.95; California, loose, $1.60@1.80; do London, $1.90@2. Prunes—Turkish are weaker on free offerings at $4.50@4.75; French, steady at 7⅞@8c for sixties and nineties. Currants are weaker on large arrivals, selling at 4⅞@5c. Citrons quiet at 17½c.

California Raisins at the East.

NEW YORK, Jan. 11.—The *Commercial Bulletin* says: California raisins have developed an easier tendency, due wholly to the actions of Western operators, particularly in Chicago. In that city some holders endeavored to work off their surplus stock, and selected Philadelphia as the market to bring their goods to the attention of Eastern buyers. The supplies forwarded are of very good quality, though probably not up to the standard of the principal packs that have been sold here since the opening of the season. They are Fresno goods, and with the average buyer would be taken without hesitation. These are offered in Philadelphia at $1.40 for two-crown loose, $1.55 for three-crown and $1.85 for London. The more popular brands of this market are held and are selling at $1.40 to $1.80, and $1.90 and $1.70@2 respectively. If Chicago holders continue to push these goods at the former quotations it is doubtful if our city commission men can maintain the market, and the result will be a loss to the California shippers.

California Products in New York.

NEW YORK, Jan. 9.—Beans—California Lima steady at $1.80@1.90. Seeds—California yellow mustard, 3¾@4¼c. About 800 bags of California rape, most of which had been previously sold, recently arrived, but buyers generally refused to accept deliveries on the ground of inferior quality. The goods were then reoffered at low prices. The nominal quotation is 2½c.

New York Hop Market.

NEW YORK, Jan. 9.—The market is without encouraging features for sellers. Brewers buy in a hand-to-mouth way, and the supply of foreign and domestic goods is still sufficient to keep values unsettled. Coast crop of 1886, prime to choice 24@25c; some fair to good, 20@23c; 1885, good to prime, 8@10c.

New York Wheat Market.

NEW YORK, Jan. 9.—Wheat has showed fair request, and sales have generally been at full improved prices. Spot closed ½c higher, and options closed 1½@2½c lower for the week.

Local Markets.

WHEAT—Notwithstanding unfavorable foreign advices our market holds very strong, with buyers unable to purchase much even at quotations. The stock in the State is below general expectations, although the RURAL PRESS' estimate of the crop out-turn, published in July last, did not warrant any larger stock on hand. On Call, transactions have been free, with high prices maintained up to Tuesday when a lower range was established, with another decline this morning, although actual wheat was no lower. To-day's sales were as follows on Call:

Morning Session: Buyer season—1600 tons, $1.65¾; 500, $1.65⅜; 200, $1.65½; 300, $1.65⅝; 1000, $1.65¾; 200, $1.65⅞; 4300, $1.65; 4500, $1.64¾; 1000, $1.64⅝ ₩ ctl. Afternoon Session: Buyer season—1900 tons, $1.65⅝; 2000, $1.65½; 1100, $1.65¾; 500, $1.65⅞; 1000, $1.66; 700, $1.66⅛ ₩ ctl.

BARLEY—The market held strong at advancing prices up to yesterday, when a decline set in, owing to the Produce Exchange reporting the stock in the State at over 125,000 tons; but to-day the market is higher, owing to a large short interest and large operators having confidence in the market. On Call, transactions the past week were very large. The following are to-day's sales:

Morning Session: Buyer season—200 tons, $1.18; 1100, $1.18¾; 400, $1.18¾; 1400, $1.18½; 700, $1.18⅝; 1200, $1.18¾. Seller season—100 tons, $1.11¾; 100 tons, $1.11½. May—100 tons, $1.13 ₩ ctl. Afternoon Session: Buyer season—1400 tons, $1.19; 200, $1.18⅞; 900, $1.19½; 1800, $1.19¾; 100, $1.19⅝. May—100 tons, $1.13¾; 100, $1.13½. Seller season—100 tons, $1.13; 100, $1.13½ ₩ ctl.

BUTTER—The market is demoralized, with buyers masters of the situation. The supply of pickled pressing the market is largely in excess of the consumptive demand, which breaks the market for fresh.

CHEESE—The market is stiff, with much difficulty reported by the retail trade in getting choice.

EGGS—The market closed the week strong at the reduced quotations. The consumption is very large, which keeps the market well cleaned up.

BAGS—The market is quiet, with no speculative movement noticeable. Buyers are deterred from entering the market, owing to continued dry weather.

FLOUR—The market is strong at the last quoted advance. Both the export and home demand is active, but with buyers trying hard to obtain concessions.

[COMMUNICATED.]

Market Information.

Fruits.

Heavy frosts on Monday and Tuesday nights are reported to have done considerable damage to oranges in the orange-growing districts of the State. The orange market is steady, with a firm tone for the better selected. The demand is increasing for both the home trade and shipping north.

Limes and lemons continue weak and in buyers' favor.

Apples, contrary to general expectations, do not appreciate, although choice are reported scarce and wanted. Common are slow to place except at low prices.

Dried fruits continue to rule firm, with full prices obtainable. The quality of all received so far shows a decided improvement over former seasons. The East reports stiff and active markets.

Raisins show a stronger tone, with a good demand from the East for the better selected. The stock in this city is light for the season, yet it is more than enough to meet the trade up to the new season. Dealers claim that the bulk now here will be marketed at the East this spring.

Cereals.

Oats continued strong through the week, although dealers tried to obtain concessions on asking prices. Receipts are not large, neither are the supplies to draw from.

The Stock of Grain.

The Directors of the San Francisco Produce Exchange have submitted the following report of the stocks of flour and leading cereals of the old crop remaining in the State of California January 1, 1887, and a comparative statement of previous years:

How Distributed.	Flour, bbls.	Wheat, ctls.	Barley, ctls.	Oats, ctls.	Beans, sks.	Corn, ctls.	Rye, ctls.
San Francisco and Oakland wharf, including Wheat afloat in the harbor	98,400	1,021,600	427,500	3,300	149,200	30,000	.....
Marin, Sonoma, Lake, Mendocino and Humboldt counties	3,200	26,150	50,000	9,100	300	1,050	560
Napa, Solano, Yolo and Colusa counties	16,395	1,214,100	124,650	.....	50	1,300	.....
Sacramento, Tulas, Sutter, Butte, Tehama, Placer & Amador Co's	25,000	654,300	65,200	700	1,700	8,700	.....
Contra Costa and Alameda counties	6,330	1,511,600	285,700	.....	.....	500	4,100
San Joaquin, Stanislaus, Merced, Fresno, Tulare and Kern Co's	5,000	2,544,400	374,500	3,500	.....	.....	40,000
San Mateo, Santa Clara, San Benito, Santa Cruz & Monterey Co's	1,000	432,600	504,700	8,600	6,000	600	.....
San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Bernardino and San Diego counties	3,450	400,100	749,000	7,200	87,700	75,000	.....
Totals	80,695	7,812,850	2,500,250	67,400	238,550	138,650	44,660
July 1, 1886	102,925	1,395,600	114,850	31,150	103,700	57,925	1,080
October 10, 1885	107,180	13,768,389	1,620,300	.....	.....	.....	.....
July 1, 1885	70,800	5,382,900	605,150	.....	.....	.....	.....
January 1, 1885	187,880	15,892,910	1,983,950	304,710	106,110	146,433	61,300
July 1, 1884	112,600	604,650	640,350	58,450	44,175	16,110	30,100
January 1, 1884	177,280	6,735,720	2,434,150	149,330	53,050	91,290	58,910
July 1, 1883	77,000	979,300	820,500	10,300	58,600	57,430	8,125
January 1, 1883	168,308	8,391,570	1,941,466	118,650	94,380	90,966	23,605
July 1, 1882	119,324	2,822,903	142,410	21,305	47,708	61,507	3,021
January 1, 1882	128,151	15,101,020	823,822	35,148	98,843	157,716	32,059
July 1, 1881	133,502	12,444,378	503,098	15,744	70,780	94,910	3,830
January 1, 1881	78,365	19,104,196	1,651,787	96,250	113,708	228,037	17,742

Corn is essentially unchanged. Dealers talk the market for Californian down while paying an advance on quotations. Choice corn is not in liberal supply. Western advices indicate an advance soon.

The wheat market has ruled strong throughout the week, with buyers unable to secure any considerable sized parcels without paying an advance on current bids. The bulk of the wheat now in the State is in strong hands, rendering it next to an impossibility to buy at less than asking prices. Several buyers express the opinion that toward assessment day there will be liberal selling orders, but holders hold to a contrary view, and think that owing to the light supply that is very liable to be available at that time, prices will be forced up regardless of taxes. The cold, dry weather is causing considerable unnecessary uneasiness, for the ground was well soaked last winter and spring, and consequently can stand a dry winter; what is more to be feared are the hot north winds which generally prevail in May or June. The stock of wheat in the United Kingdom on January 1, 1887, was only one-half the quantity held January 1, 1886. It is now claimed that Peru will draw considerable from us, owing to the Chili ports being closed against her people. The course of foreign grain markets, as for some months past, strengthens the position of those who look for an advance in prices, so far as the statistical position of grain is concerned, and London particularly is slow to weaken. The London *Miller* of December 13th says: From no quarter in sight is there any promise whatever that wheat supplies for the next three months can equal the country's certain requirements. Some further diminution of granary stocks is a probability generally acknowledged. The quantity afloat, after being for many months in excess of the quantity due to arrive a year ago, is now less in comparison, and while Indian shippers are quiet, Russian exporters have almost to a man retired from offers at November's prices. America has its stock, and will know how to whip it up. The London correspondent of the Minneapolis *Miller* wrote on December 7th: America has the reins entirely in her own hands. Europe wants something like 2,000,000 bushels per week from the Atlantic ports in wheat and flour during the next five or six months, and the question only remains, is this easy of accomplishment? * * * With regard to the probable extent of our stocks at the close of this year, I anticipate that they will be reduced to 10,000,000 bushels, against 27,000,000 at the same time last year, compared to which the present difference of 4,000,000 bushels in your visible supply is a mere nothing. The London *Corn Trade List*, December 17th, states that the mild weather permitted navigation from St. Petersburg to remain open to an unusually late date. South Russian wheat exports are mainly to Mediterranean ports. At Odessa supplies are small. Wheat prices in some portions of Russia are reported above those in England. Austria-Hungary is not exporting much. A good share of Indian, Russian and American wheat exports are going to France, Italy and Spain.

The barley market held to strong prices up to Tuesday, due to continued cold and dry weather, with stocks in this State well concentrated. This year's harvest it is now very generally admitted will be later than last year, while the consumption is larger. Experienced dealers are favorably impressed with the situation, and hold firmly to the belief that the market will do much better before next harvest.

Live-Stock.

Beef cattle continue to press the market, with only something very choice, which can be cut up without much wastage, fetching full quotations. Mutton sheep are without essential change. Hogs continue in buyers' favor.

In horses the market is slow, with only well-matched teams selling at good prices.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 2¼ to 3c for heavy and medium; hard dressed, 4 to 6c per lb; light, 2½ to 3c; dressed, 3½ to 4½c; soft hogs, live, 1¾ to 2¼c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Feedstuffs.

Ground barley is not quite so strong at the advance. Bran, middlings, and oilcake meal are steady.

Hay was sold at an advance the past week, owing to the dry weather keeping supplies back. It is claimed that the crop this year will not be large.

The market is quotable as follows: Alfalfa, $9.50@12; barley, $8@11; oats, $8@11; cow hay, $8@11.50; wheat, $10@13 ₩ ton.

Vegetables.

Potatoes sold at an advance the past week, under freer buying and moderate receipts. The supply of choice continues light.

Onions held to strong prices up to Tuesday, when owing to freer receipts the market eased off, but close steady to-day.

Cabbages are steady, as are root vegetables.

Dried ochra and dried peppers are fairly steady at current quotations.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	215,986	155,490
In port, disengaged	84,255	121,478
In port, engaged	39,349	38,445
Totals	339,590	315,413

The above gives a carrying capacity, as follows: 1887, 543,344 short tons; 1886, 504,662 short tons; increase over last year, 38,282.

There is very little doing in grass seed, causing prices to favor buyers.

Beans continue to hold to strong prices, with all choice quickly taken at full prices.

Ducks are higher owing to the Chinese new year, but other fowls are barely steady.

San Francisco, Jan. 12, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Jan. 12, 1887.

BEANS AND PEAS.			
Bayo, ctl	1 40	@	1 55
Butter	1 25	@	1 35
Pea	1 60	@	1 70
Red	1 25	@	1 40
Pink	1 25	@	1 40
Large White	1 60	@	—
Small White	1 60	@	1 70
Lima	2 00	@	2 45
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	20	@	25
do Fancy brands	26	@	—
Pickle roll	15	@	17½
Firkin, new	15	@	18
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	13	@	16
Eastern style	15	@	17
EGGS.			
Cal., ranch, doz	26	@	27½
do, store	22½	@	25
Ducks	—	@	—
Oregon	—	@	—
Eastern	—	@	—
Utah	—	@	—
FEED.			
Bran, ton	15 50	@	16 50
Cornmeal	26 00	@	27 00
Gr'd Barley ton	25 00	@	26 00
Hay	9 00	@	14 50
Middlings	19 50	@	22 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	35	@	50
FLOUR.			
Extra, City Mills	4 52½	@	4 90
do Co'nty Mills	4 35	@	4 77½
Superfine	3 35	@	3 90
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 20
do Brewing	1 15	@	1 30
Chevalier	1 45	@	1 60
do Coast	1 30	@	1 45
Buckwheat	1 00	@	1 20
Corn, White	—	@	—
Yellow	1 05	@	1 10
Small Round	1 10	@	1 15
Nebraska	97½	@	1 05
Oats, new	—	@	—
Choice feed	1 55	@	1 65
do good	1 40	@	1 50
do fair	1 30	@	1 37½
do black	1 40	@	1 55
do Oregon	1 30	@	1 60
Rye	1 10	@	1 25
Wheat milling,			
Gilt edged	1 65	@	1 67½
do Choice	1 60	@	—
do fair to good	1 55	@	—
Shipping, choice	1 60	@	—
do good	1 57½	@	1 60
do fair	1 50	@	1 55
HIDES.			
Dry	—	@	12
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb,	9	@	12
Honey in comb, fancy	12	@	13½
Extracted, light	4	@	4½
do dark	3½	@	4½
HOPS.			
Oregon	20	@	27½
California	20	@	27½
ONIONS.			
Pickling	—	@	—
Silverskin	1 00	@	1 90
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, hd shl	6	@	9
Soft shell	15	@	19
Brazil	10	@	11
Pecans	9	@	11
Peanuts	4½	@	—
Filberts	10	@	11
POTATOES.			
Burbank	1 20	@	1 70
Early Rose	90	@	1 10
Cuffey Cove	1 10	@	1 45
Jersey Blues	1 10	@	1 50
Petaluma	—	@	—
Tomales	1 00	@	1 40
River reds	1 00	@	1 25
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 20	@	1 50
Peerless	1 25	@	1 75
Salt Lake	—	@	—
Sweet	1½	@	2
POULTRY AND GAME			
Hens, doz	6 00	@	7 50
Roosters	6 00	@	7 50
Broilers	4 00	@	6 00
Ducks, tame	6 00	@	9 00
do Mallard	2 00	@	3 50
do Sprig	1 00	@	1 50
Geese, pair	1 00	@	2 00
do Goslings	—	@	—
Wild Gray, doz	3 00	@	—
Turkeys, lb	13	@	15
do Dressed	14	@	16
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	75	@	85
Quail	90	@	1 00
Rabbits	1 00	@	1 25
Hare	1 50	@	2 00
Venison	8	@	10
PROVISIONS.			
Cal. Bacon,			
Heavy, lb	8½	@	9
Medium	8½	@	9
Light	10½	@	11½
Extra Light	12	@	12½
Lard	7	@	9½
Cal. Smoked Beef	11½	@	12½
Hams, Cal	10	@	12½
do Eastern	13	@	14
SEEDS.			
Alfalfa	9	@	10
Canary	3½	@	4
Clover red	12	@	13
White	17	@	18
Cotton	20	@	—
Flaxseed	2¾	@	2¾
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	3	@	3½
Brown	2 25	@	2 75
Rape	1	@	1½
Ky. Blue Grass	10	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW.			
Crude, lb	1½	@	4
Refined	6½	@	6½
WOOL, ETC			
SPRING—1886			
Humboldt and Mendocino	23	@	25
Sac'to valley	17	@	20
Free Mountain	17	@	20
N'hern defective	—	@	—
S Joaquin short	14	@	18
do long	—	@	—
Cava's & Fth'll	—	@	—
Oregon Eastern	17	@	22
do valley	23	@	25
Southern Coast	13	@	17
FALL—1886			
Southern, free	17	@	20
do defective	12½	@	19
Northern, free	20	@	23
do defective	15	@	20
Middle free	18	@	21
do defective	15	@	18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Jan. 12, 1887.

Apples, bx com..	50	@	1 10	Raspberries ch..	—	@	—
do choice.....	1 25	@	1 75	Strawberries ch.	5 00	@	6 00
Bananas, bunch.	1 50	@	3 00	Watermelons100	—	@	—
Blackberries, ch.	—	@	—	**DRIED FRUIT.**			
Canteloupes, cr.	—	@	—	Apples, sliced, lb	5	@	6½
Cherries blk.....	—	@	—	do evaporated.	11	@	12½
do Royal Ann..	—	@	—	do quartered..	4	@	5
Cherry plums...	—	@	—	Apricots.....	13	@	15
Crabapples.....	1 25	@	1 75	do evaporated	20	@	22
Cranberries.....10	00	@	12 50	Blackberries....	9	@	11
Currants chest...	—	@	—	Citron.....	28	@	30
Figs, bx.....	—	@	—	Dates.....	9	@	10
Grapes.....	1 00	@	2 75	Figs, pressed....	5	@	6
do Rose Peru.	—	@	—	Figs, loose.....	3	@	4
do Muscat.....	—	@	—	Nectarines.....	8	@	10
do Tokays.....	—	@	—	do evaporated	16	@	18
Isabel.....	—	@	—	Peaches.....	8	@	10
Wine, Zinfandel	—	@	1 00	do pared.....	18	@	22
do Mission.....	—	@	—	Pears, sliced....	5	@	6
Limes, Mex.....	4 50	@	6 —	do qrtd.....	4	@	5
do Cal. box...	50	@	1 00	do evaporated	10	@	13
Lemons, Cal., bx	1 00	@	1 50	Plums, pitted...	9	@	10
do Sicily, box.	2 00	@	2 50	do unpitted...	3	@	4
do Australian.	—	@	—	Prunes.....	6	@	8
Nectarines, box.	—	@	—	do French	8	@	10
Oranges, Com bx	1 50	@	2 00	Zante Currants.	8	@	—
do Choice.....	2 25	@	3 00	**RAISINS.**			
do Navels.....	3 00	@	5 00	Dehesa Clus, fcy	2 65	@	—
do Panama...	—	@	—	Imperial Cabinet, fancy....	1 90	@	—
Peaches, bx.....	—	@	—	Crown London Layers, fcy..	1 70	@	—
do bask.....	—	@	—	do Loose Muscatels, fancy	1 60	@	—
Crawfords, bx	—	@	—	do Loose Muscatels.....	1 50	@	—
do bskt..	—	@	—	Cal. Valencias..	1 50	@	—
do choice	—	@	—	do Layers.....	1 50	@	—
Pears bx	—	@	—	do Sultanas...	1 50	@	—
do choice.....	—	@	—	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.			
do Bartlett, bx	—	@	—	**VEGETABLES.**			
Persimmons, Jap, bx.....	1 00	@	1 50	Artichokes, doz.	—	@	—
Pineapples, doz.	4 00	@	5 00	Asparagus box..	—	@	—
Pomegranates. b	—	@	—	do cultivated.	—	@	—
Plums lb	—	@	—	Okra, dry, lb..	10	@	12½
Prunes bx.....	—	@	—	do green box..	—	@	—
do Egg.....	—	@	—	Parsnips, ctl....	1 50	@	—
Quinces bx.....	—	@	—	Peppers, dry lb..	10	@	—
Beets, sk.....	1 00	@	—	do green, bx..	40	@	60
Cabbage, 100 lbs.	50	@	75	Pumpkins pr ton	12 00	@	15 00
Jarrots, sk.....	25	@	35	Squash, Marrow fat, ton.....	7 00	@	12 00
Cauliflower, doz.	—	@	—	do Summer bx	25	@	40
Eggplant, ...bx	—	@	—	String beans lb..	—	@	—
Garlic, lb new..	—	@	—	Tomatoes box..	—	@	—
Green Corn, small box...	—	@	—	Turnips ctl.....	75	@	1 00
do large box..	—	@	—				
Green Peas, lb..	—	@	—				
Lettuce, doz....	10	@	—				
Lima Beans lb..	—	@	—				
Mushrooms, bx.	—	@	—				

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Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, best and cheapest of all economical and practical file binders. Newspapers are quickly placed in it and held neatly, as in a cloth-bound book. It is durable and so simple a child can use it. Price, size of Mining and Scientific Press, Rural Press, Watchman, Fraternal Record, Masonic Record, Harper's Weekly, and Scientific American, 75 cents; postage, 10 cents. Postpaid to subscribers of this paper, 50 cents. Send for illustrated circular. Agents wanted.

A TRANSPOSITION.—Readers who attempted to read the articles on "Fruit Shipping" and "Grape-Growers' Meeting" on the first page of last week's RURAL, were probably much confused. By an unusual mishap the printer mismated the parts of the articles, making the end of one fit the beginning of the other. Mechanically it looked well, but the sense rebelled. The end of the first article, beginning with the words "spurious wines," belongs to the second article, and the end of the second, beginning with the word "hardship," belongs to the first.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to anyone who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

MISS TRACY'S SCHOOL WORK, formerly carried on at 1825 Telegraph avenue, has been transferred to 1061 Oak street, Oakland. Lessons are given either privately or in classes.

DIVIDEND NOTICE.

The German Savings and Loan Society.

For the half year ending December 31, 1886, the Board of Directors of The German Savings and Loan Society has declared a dividend at the rate of four and thirty-two one-hundredths (4 32-100) per cent per annum on term deposits and three and sixty one-hundredths (3 60-100) per cent per annum on ordinary deposits, payable on and after the 3d day of January, 1887. By order.

GEO. LETTE, Secretary.

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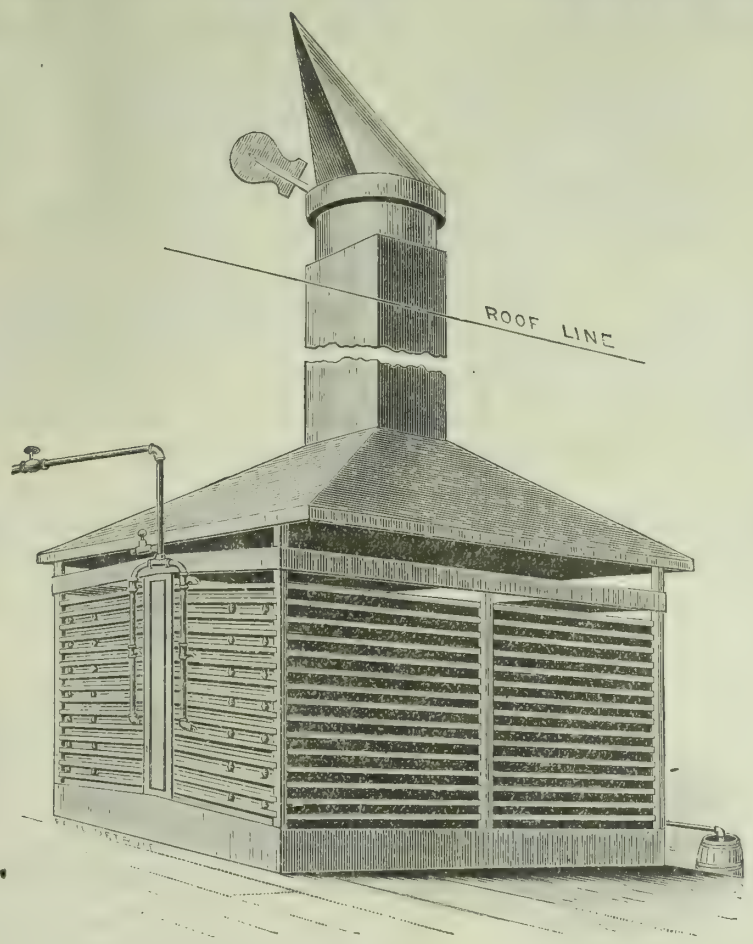
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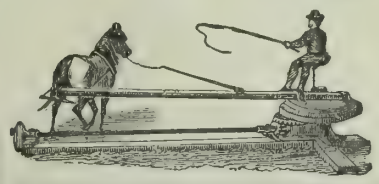
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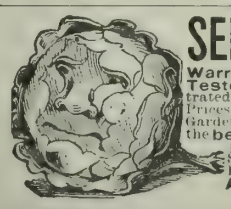
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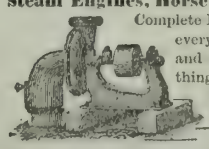
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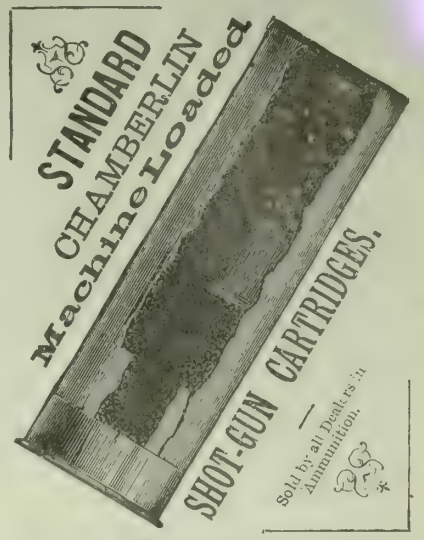
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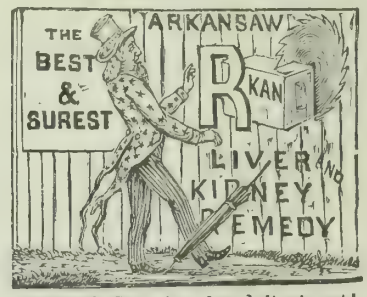
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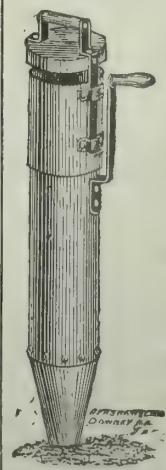
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This kind is altogether propagated **true from the root** in its home, valley of the Loire (France), and offers greater advantages than grafted trees, as being also more vigorous, more long-lived, and a **gum-resistant** stock.

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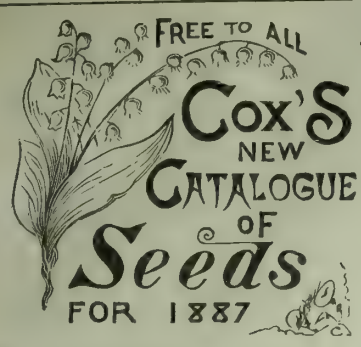
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100,000 BLACKBERRIES, LAWSON and KITTITANY and others, $10 per 1000.

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FINE, FRESH AND CLEAN.

I have for sale seed of **Vitas Californica**, proof against Phylloxera, which I will send at $1 per pound for 5 pounds or more, or $1.50 per pound for less than 5 pounds.

Vitas Californica Cuttings, $8 per 1000.

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FINE ASSORTMENT OF THE LEADING VARIETIES OF

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LARGEST PEACHES IN CALIFORNIA. Splendid flavor; good shippers; excellent for canning.

Gum and Pepper Trees in boxes. Flowers and Shrubs.

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A superb stock of Lawson best Early Market Pear, Kieffer best Late Market Pear, Le Conte and other Pear Trees. Wilson, Jr., largest known Blackberry; 163 bushels per acre—4½ inches around. Erie, the largest very hardy Blackberry. Marlboro and Golden Queen Raspberries. Parry and Lida, best Market Strawberries. Niagara, Empire State and other Grapes in large supply. All the worthy old, and promising new fruits. Catalogue free, **WM. PARRY, Parry, N. J.**

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MEECH'S PROLIFIC QUINCE; LAWSON, KIEFFER, and LE CONTE PEARS; NIAGARA and EMPIRE STATE GRAPEVINES. SOUHEGAN and MARLBORO RASPBERRIES. MAY KING and JEWELL STRAWBERRIES. A Complete Stock of everything desirable to plant. Send immediately for price list and circulars. Address, WEST JERSEY NURSERY CO., Bridgeton, N. J.

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1,000,000 GRAPE CUTTINGS

At $3 per M.

Muscatel, Muscat, Sultana, Flame Tokay and Emperor; also Rooted Vines at $12 per M.

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FRENCH PRUNE TREES FOR SALE.

For sale, about 2000 French Prune Trees. 2 years old, large, healthy trees, free from insects, at $50 per 1000, or $5 per 100. Apply to B. SCHULTE, one-half mile west of Wayne (a local station 4 miles north of San Jose), or address P. O. Box 132, San Jose, Cal.

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NILES, CAL.

We offer to the public our usual excellent and well-assorted stock of

FRUIT, NUT & SHADE TREES,

SHRUBS AND PLANTS.

ALL OUR TREES ARE GUARANTEED FREE FROM SCALE, and are grown without irrigation on new land distant from old orchards.

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TRUE FIG OF COMMERCE.

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SHINN & CO., Niles, Alameda Co., Cal.

33d YEAR. **STOCKTON NURSERY.** 33d YEAR.

WHITE ADRIATIC,

SAN PEDRO, SMYRNA, and ENDRICH FIGS.

Præparturiens, Macrocarpa, Mayette, and Chaberte Walnuts, Chestnuts, Persimmons, Mulberries, Olives, Oranges, Lemons, Pears, Apples, Peaches, Apricots, Cherries, etc. Plums and Prunes on Myrobolan Stock, Grapevines, Ornamental Trees, Shrubs, Palms, Magnolias, Clematis, New Roses and Hothouse Plants.

TRY THE PERSIAN MULBERRY.

NO SCALE.—I wish particularly to call the attention of Fruit-growers to this fact. I have repeatedly had my nursery examined by experts, and upon no occasion have they found any scale or any indication of scale. The nursery is isolated from orchards, both old and new, and as I take every precaution in importing new varieties to get only clean stock, I feel perfectly warranted in guaranteeing every tree sold by me free from scale and other pests that are proving so disastrous to the fruit interests of the State. SEND FOR CATALOGUE.

E. C. CLOWES, Proprietor, Successor to W. B. WEST.

STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

Don't Buy SEEDS, ROSES, PLANTS

FRUIT OR ORNAMENTAL TREES, GRAPE VINES

OR ANYTHING IN THE NURSERY LINE, without first writing for our valuable FREE Catalogue, the BEST we ever issued, containing the Rarest New and Choicest Old.

21 LARGE GREENHOUSES
33d YEAR. 700 ACRES.

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What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?" AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. JAS. J. H. GREGORY, Seed Grower, Marblehead, Mass.

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For 1886 and 1887.

FRESH STOCK OF

GARDEN AND FIELD SEEDS!

All of this year's growth, for sale at the GEO. F. SYLVESTER SEED WAREHOUSE, Nos. 315 and 317 WASHINGTON STREET, SAN FRANCISCO. SAMUEL BRECK, Proprietor.

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Will be sent FREE TO ALL who write for it. Send address on postal for the most complete CATALOGUE published, to

It is a **Handsome Book** of **128** pp., with hundreds of illustrations, **3 Colored Plates**, and tells all about THE BEST GARDEN, FARM and FLOWER **SEEDS, BULBS, PLANTS, Thoroughbred Stock and Fancy Poultry.** It describes **RARE NOVELTIES** in **Vegetables** and **Flowers** of real value, which cannot be obtained elsewhere.

W. ATLEE BURPEE & CO., Philadelphia, Pa.

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ESTABLISHED IN 1858.

Apricot, Plum, Prune and Peach on Myrobolan Plum stocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine, Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

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Large stock; fine plants; for the season of 1886-87. Address

T. J. SWAYNE, National City or San Diego.

Home-Grown RYE GRASS SEED.

In Lots of Half a Ton, at 10 cents per pound.

JOHN W. FERRIS,
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SOW EARLY. 30 lbs. to the acre.

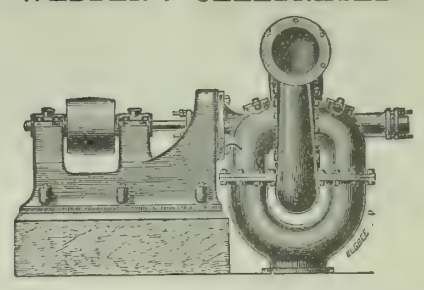
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Consisting of Wood and Iron Working Machinery. Pumps of every description.

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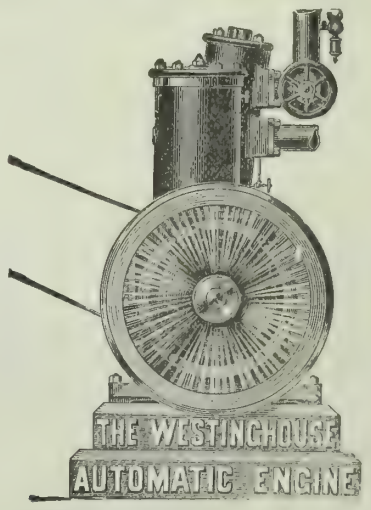
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For logging camps, wood-yards, farmers getting out stove wood, and all sorts of log-cutting,—**it is unrivaled.** *Thousands sold yearly.* A boy of 16 can saw logs **fast** and **easy.** Immense saving of **labor** and **money.** Write for elegantly illustrated catalogue in 6 brilliant colors, also brilliantly illuminated poster in 5 colors. **All free.** Agents Wanted. *Big money made quickly*

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THE MONARCH POTATO DIGGER for Sale by TRUMAN, ISHAM & HOOKER, Agents for the Pacific Coast, 421 to 427 Market St., San Francisco, Cal.



1,300 Engines now in use.
40,000 Horse Power now running.
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The BUYERS' GUIDE is issued Sept. and March, each year. ☞ **312 pages, 8½ x 11½ inches, with over 3,500 illustrations—a whole Picture Gallery. GIVES Wholesale Prices *direct to consumers* on all goods for personal or family use. Tells how to order, and gives exact cost of everything you use, eat, drink, wear, or have fun with. These INVALUABLE BOOKS contain information gleaned from the markets of the world. We will mail a copy FREE to any address upon receipt of 10 cts. to defray expense of mailing. Let us hear from you. Respectfully,**

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Fruit Engravings, The finest, best and cheapest Photographs and Engravings of Fruits, Vegetables, Houses, Farms, Landscapes, etc., made by **PHOTOGRAPHS, ETC.** S. F. PHOTOGRAVING CO., 659 Clay St., S. F.

COMBINED HARVESTERS for 1887

MANUFACTURED BY THE

STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

Stockton, Cal.

PULL AND PUSH,
BELT AND GEARED.

HOUSER,
MINGES,
SHIPPEE,
—AND—
POWELL.



The "HOUSER" Belt

IS OUR STANDARD,

But will build Geared to Order

—ALSO—

Minges, Shippee and Powell.

THE HOUSER COMBINED HEADER AND THRASHER

IS THE BEST KNOWN AND MOST POPULAR HARVESTER ON THE COAST.

It has had 7 years of unparalleled success in our grain fields. A Pull and Belt machine, combining Strength, Durability and Capacity, and as Light as consistent with strength. Every Houser Harvester sold has given entire satisfaction.

We have not space to give a full description of the Houser Harvester, but append as many Testimonials of 1886 as room will permit, showing what the Houser has accomplished, and what our grain raisers think of them. Save this page, keep it for reference; look for issue of RURAL PRESS of January 29th, with a new cut of the Houser for 1887 and further Testimonials.

TESTIMONIALS:

TULARE, Nov. 20, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser Belt Harvester I purchased of you proved an *entire success*. I tested it 58 days on both heavy and light and down grain and on land containing over 1500 large scattered trees to the section and several fair-sized sloughs. It cut and thrashed grain on uneven land where it could not be gathered with a header. I had no delay from breakages and my extras cost me not to exceed $20. I used 20 rather small animals, which improved in flesh while harvesting. I saved my sack bill and thrashing bill over the old method of harvesting. My machine is good for several seasons. Sixteen good-sized animals would have handled my harvester the entire eason and would require more only on sandy soil. Of 11 Houser machines purchased of you this season by parties I am personally acquainted with, the purchasers were more than satisfied. Yours respectfully, FRED ARNOLD.

ARBUCKLE, CAL., Nov. 25, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 12-foot Houser Machine purchased of you last summer gave good satisfaction. We cut 1000 acres; some of it was badly down and very heavy straw, and our neighbors thought it could not be harvested with a combined machine. We put our wheat in the sack for about what it costs to cut with a header and put in the stack. We were 52 days in cutting, and think it the best combined harvester and labor-saving machine in use. Yours respectfully,

J. C. BROOKS & SONS.

TULARE, Dec. 5, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I used the 14-foot Houser Belt Harvester which I bought of you to cut 1200 acres of very heavy wheat with long straw and badly lodged. I had 12,000 sacks of grain and averaged 200 sacks a day, or 20 acres. I could do better another year, as it was all new to me. It is by far the cheapest and best way to harvest grain. I made an estimate on each day's running expenses as follows, counting my time: Labor, $13.50; horse hire, $14; horse feed, $10; board of men, $3.75; oil, 20 cents; expense keeping machine in repair, 50 cents; a total of $41.95 each day. My yield was 29,000 bushels, costing me a trifle less than seven-eighths of a cent a bushel to put it in piles of from 250 to 400 sacks each. My estimate is the highest that could be made for 60 days' run in a very warm climate. Respectfully yours,

G. H. CASTLE, JR.

VISALIA, Dec. 8, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 16-foot Houser harvester we bought of you gave perfect satisfaction. We cut 1500 acres, employed four men and 21 horses; averaged on one section of standing Sonora grain 33⅓ acres a day; largest number of sacks, 356. Five hundred acres of my grain was heavy Australian and 20 acres very badly tangled. It did better work in lodged grain than any header could do. It cost us not more than 75 cents an acre to pile the sacks in the field, less than one-half of the old way. The cost of extras was comparatively small. We cheerfully recommend it to al' farmers. Yours respectfully,

HARRIS & COUGHRAN.

WILLOWS, Nov. 24, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser Machine I purchased of you did excellent work. I am well pleased with it—can recommend it to all farmers. I averaged 26 acres a day—had 300 acres of very heavy grain which I saved better than if it had been headed and thrashed. I run my machine 52 days, and with a few dollars expense, it will be as good as new.

Yours truly, P. R. GARNETT.

DIXON, Nov. 30, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I am well pleased with my 14-foot cut Houser machine. I cut 600 acres in 30 days, including all stoppages. My best day's work was 450 sacks of wheat. I had some very heavy grain and some light, and also some that was lodged, but the harvester did good work. Yours truly,

CHAS. HUNT.

FRESNO, Dec. 22, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser machine we bought of you, gave entire satisfaction. We cut 1760 acres, some very heavy down grain and very rough hog-wallow land, and it did just as good work as on level land. It cleaned better than the ordinary thrashing machines and separators. Our wheat was counted as No. 1 in the market. We cut the grain much cleaner than our neighbors who used headers. The worst objection to the Houser is that we can't sell our stubble fields to stockmen. We can willingly recommend the Houser Machine to any one wishing a combined harvester. Yours truly,

HANSEN, MCLAUGHLIN & SAYRE.

GRAYSON, Nov. 24, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 16-foot Houser Belt Machine I purchased of you this season gave entire satisfaction. I cut about 1500 acres in 50 days and never used over 20 animals, although the weather was very hot, and some of my barley yielded 50 bushels an acre. My expenses for extras for the season were 75 cents. Yours respectfully,

CHAS. D. ELFERS.

GRAYSON, Nov. 27, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 16 foot Houser Belt Machine I purchased of you last summer did excellent work. I cut about 1400 acres, 200 acres of which was very uneven land; used 22 animals on hilly ground and 18 on level land. The machine thrashed well and saved the grain. The cost was hardly half what it would have been had I headed and stacked my grain. The Houser is the machine for the farmer. Wishing you success in your great enterprise, I am, very truly yours,

M. GALVAN.

TULARE, Nov. 30, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: In regard to the 14-foot Houser Belt Harvester which I bought of you, I am well satisfied. We cut 1800 acres of grain, some standing and some of it lodged very badly; it both saves the grain well and cleans it good, and so far as I can see, it is as good as I want. Yours respectfully,

J. T. CHISM.

CROW'S LANDING, Dec. 4, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I cut 1200 acres with the 16-foot Houser Belt Machine, averaging about 30 acres a day in heavy wheat and thrashed about 400 sacks a day without any expense for repairs. I run 4 men and 22 horses, and consider it a fine machine. I can harvest grain for one-half what it used to cost to head and thrash. Yours truly, J. B. CROW.

CHAMBERLAIN RANCH P. O., MERCED, Nov. 29, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I cut this season with your Houser Belt Harvester 1700 acres of grain, averaging 25 acres a day, including stoppages, 1400 acres barley, and 300 wheat. For a combined machine and work intended, it cannot be beat in the field. Yours truly,

A. W. CHAMBERLAIN.

MODESTO, Nov. 27, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 16-foot Houser Harvester which we bought of you last harvest, gave us entire satisfaction. We cut about 1600 acres of grain with it, and averaged about 30 acres a day, with four men and 22 animals, and with great ease. We had but little delay during the harvest season, and the expense will be very little to put it in repair for the coming harvest. From my experience and observation I think the Houser Machine has given more general satisfaction than any combined machine in the field.

Yours respectfully, M. MOYLE & SON.

MCMAHON RANCH, DIXON, Nov. 30, 1886.

Stockton Combined Harvester and Agricultural Works—DEAR SIRS: We harvested about 1800 acres in 45 days with the two 14-foot cut Houser Harvesters purchased of you this past season, at an expense of 60 cents per acre for labor hire for four men for each machine. The grain all stood up and had about average grain. Used 24 animals to each machine, which run them with ease. Twenty good mules can run them. Yours respectfully,

J. B. YOUNT,
MRS. L. E. MCMAHON,
J. E. MCMAHON.

MADISON, Nov. 30, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I sold your 18-foot Houser Harvester to Messrs. Adams & Campbell; they are so well pleased with it they say they would not take the money back for it if they could not get another Houser. They employed three men and 24 horses; run 50 days with an average of 30 acres per day—but think they can do better next year, as they know now how to run and manage it in good shape. They harvested a good deal of grain which gave good returns that could not have been cut with a header to any advantage. Yours truly,

W. LEVY.

WILLOWS, Nov. 21, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I am pleased to inform you that the 14-foot Houser Belt Machine purchased of you this season, has given me entire satisfaction. It did all claimed for it; had a run of 51½ days and did not lose an hour during that time, making an average of 27½ acres per day. Would not do without the Houser Machine at any cost, and cheerfully recommend it to all farmers. Yours, etc.,

WM. KILLEBREW.

☞WE GUARANTEE OUR HARVESTERS TO DO GOOD WORK WITH PROPER MANAGEMENT.☜

Please call at our Works, corner Main and East streets, Stockton, examine our Harvesters, read our Testimonials, see or correspond with those who have used our machines. It is to the interest of all grain growers to inspect our HARVESTERS for 1887 before purchasing Harvesting Machinery. Give us your orders soon, that we may fill them for the early harvest. There is no danger of breaking the frame, gearing or shafting, as we build them so strong in every respect that they cannot be broken with fair usage. They effectually stood the severe strain of field work last season, harvested more grain, at less expense, and cleaned it better than any other Combined Harvesting Machines of any description.

☞Send for Circulars. Correspondence solicited. For further information, prices, etc., address

STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS, STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 4.] SAN FRANCISCO, SATURDAY, JANUARY 22, 1887. [$3 a Year, in Advance; SINGLE COPIES, 10 CTS.

The Mohair Industry.

In the PACIFIC RURAL PRESS of last week there was a communication on the mohair market, from a leading firm of wool and mohair dealers in New York City, in which the following sentence occurred:

For choice fine, 36 cents is full value to-day. Good average combing will bring only 34 cents, and fair average will not command more than 30 cents. Carding stock is slow sale, from 15 up to 25 cents for very clean, bright lots.

We have a letter from a prominent mohair producer calling our attention especially to this statement as indicating that the mohair industry is in imperative need of protection by the Government, because the prices named above would only net the producer about 28c per pound for the choicest mohair and of course proportionately less for other grades. We are assured that mohair cannot be produced in America for any such price.

It appears, from the circular cited above, that manufacturers in America went abroad for their supplies of mohair where the prices ruled very low, and, to use the exact words of the circular, "cared nothing for an American industry in which they claimed to have a great interest." Generally we are in favor of only a very moderate tariff, but this and some other California products are exceptional. In the case of mohair there is no one breeding goats at present for their fleece who has not secured the very best stock he could find, and often at a heavy outlay of both time and money, and yet is unable to compete with foreign production. One goat-breeder writes as follows: "I used to get 55 cents a pound for my fleece. Now that I have a superior staple I get only 28 cents net." He adds: "I am truly discouraged." It is no wonder, for it has taken him 10 years to produce his improved mohair. Another breeder says he is going to butcher off his stock and quit the business. Yet another says: "I am wholly dissatisfied with the price I received for my clip of mohair of 1886."

One would suppose that those who entered on the production of mohair have had a hard time enough, and that they are entitled to such tariff protection now as will save them from impending ruin. They have labored long and patiently through times of depression and neglect to maintain their enterprises, and now that the market seemed disposed to improve because of new uses being found for the mohair, in comes the foreign article and seems inclined to knock the bottom out of our promising home product. This industry clearly needs the attention of the lawmakers, and needs protection until it is brought upon a broader basis at least. The goat industry promises to make productive vast areas on the Pacific Coast and in the Southern States and Territories which are ill adapted for anything else. We have counted upon fleece goats to people many of our waste places and to furnish home-grown material for vast mohair-manufacturing enterprises. It will not be wise to deny it the support it needs just at this juncture, and it seems as though it could not be withheld. We respectfully call the attention of our Pacific Coast Senators and Representatives to the matter.

Morning-Glory.

EDITORS PRESS:—I have a large vineyard planted last fall. In it I find about one acre of morning-glory. I wish to kill it, and prefer to kill land with it sooner than leave the weed to spread to the rest of the vineyard. Can you suggest any remedy? Digging it out root by root, the only remedy I know of being too expensive. —MORNING-GLORY.

We despair of a cheap or easy remedy. Whenever we have printed experience of some subscriber looking to such an end, we have always had other statements that the method had failed. Even covering the land with salt, as has been done at Haywards, where salt is cheaply obtained from the Bay Shore Salt Works, has only succeeded in discouraging the plant temporarily. Even digging it out by the root, expensive as it is, has never been done thoroughly enough, we believe, to exterminate the plant. The only successful treatment we have heard of is that adopted by one of our energetic lady horticulturists, and that she has persisted in, if we remember correctly, for over two years and now believes the problem is near solution. She started on the theory that the plant must never be allowed to come to light or sight. She instructs one man to cultivate the infested spot every Monday morning with a sharp tooth cultivator. That is his work to do whether he can see a sign of the plant on the surface or not. It is understood that if the owner sees a sign of growth on the spot the man loses his place. By this method the extension of the plant has been checked and she hopes to annihilate it. She counts the prevention of extension as a great point, and when we asked her if such persistent cultivation would not cost too much, she said it would not cost as much as the ranch was worth, and if the morning-glory is left alone it will take the ranch.

Morning-glory is a subject which could well have some space in almost every issue of the RURAL. Will not all readers who have even a ray of light upon its destruction give others the benefit of it?

Department of Agriculture and Labor.

It was announced by telegraph the other day that one of the Houses of Congress had passed a bill organizing a "department of agriculture and labor." As described by mail advices, the bill provides that there shall be at the seat of Government an executive department, to be known as the Department of Agriculture and Labor, under the control of the Secretary of Agriculture and Labor and Assistant Secretary. There shall be in the Department of Agriculture and Labor a division which shall be under the charge of the Commissioner of Labor, who shall hold his office four years, and until his successor be appointed, unless sooner removed, and shall receive $5000 a year. The commissioner shall collect information upon the subject of labor, its relation to capital, hours of labor, rates of wages, cost of production, of articles produced, earnings of laboring men and women, the means of providing for their material, social, intellectual and moral prosperity, and the best means to protect life and prevent accidents in mines, workshops, factories and other places of industry. The secretary is empowered to inquire into the cause of the discontent which may exist between the employers and employes within the United States, and he may invite and hear sworn statements from both such parties concerning the matters in controversy.



SCENE ON A SUGAR PLANTATION IN LOUISIANA.

A Sugar Plantation.

Our engraving gives a view of a sugar plantation in Louisiana. In the background are the plantation buildings, the most imposing of which is the sugar-house, with its tall chimneys. Stretching quite across the middle ground are the wide fields of growing cane, growing thriftily upon the rich soil abundantly supplied with water from the bayous. In the foreground are the native trees, festooned with the graceful streamers of moss, which are characteristic of the warm, moist situation. The whole makes a landscape combining natural and industrial features peculiar to the region in a pleasing manner.

The scene is, of course, in the lowlands of Louisiana. On these rich alluvial deposits, the chief productions are cotton and sugar, and rice and forage for the animals used on the plantations; and here are to be found the grandest agricultural establishments of the State, great capital being employed in their operation. The farmers in the uplands, prairie and pine-woods, take advantage of the native pastures, nuts, fruits and roots, and raise cattle, sheep, hogs, and a few horses and mules, in addition to field crops. Corn and sugar-cane are cultivated only with the plow or cultivator, in rows from four to seven feet apart. They should be plowed three times, although good corn is made by once plowing out in rich land. Corn is planted from February 14th to March 1st, sugar-cane either in the fall or spring; cane requires only one planting in three years; cotton is also planted in rows, from March 20th to May 1st; cotton is thinned to a stand by one hoeing, and plowed about three times. It is claimed that the lands of Louisiana will yield from 25 to 50 bushels of corn, from one to two bales of cotton, and from one to three hogsheads of sugar per acre. Rice is extensively cultivated, and will yield, it is said, from 30 to 75 bushels per acre, worth from $45 to $115. In the lowlands rice is sown broadcast and irrigated; in the highlands it is drilled in rows two or three feet apart, and cultivated with a plow or cultivator. It is sometimes cut by machinery and thrashed like wheat, and is harvested in August. Oats do well all over the State. Wheat is confined to Northwestern Louisiana. Sugar-cane is very easily grown, but the cost of the machinery is great, and it requires a large capital to build and operate a mill. Small farmers sell their cane to central mills for $4 or $5 per ton (2000 pounds); 20 tons is a fair crop per acre, but 30 tons and over are sometimes made. Sugar-making commences about the middle of October and continues about three months. Cotton-picking commences in August and lasts till January. A quick hand will, it is said, pick more than 200 pounds per day. The scenery of Louisiana is by far the most varied and attractive in the South, especially up and down its bayous and rivers —indeed, the whole country, from the Mississippi river to the Sabine, seems more like an immense garden, dotted here and there with pretty homes, than anything else.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

An Old Californian in Florida.

EDITORS PRESS:—I have been in Florida some five weeks, and traveled over much of the orange and vegetable portions of the State, and I see many things of interest.

The orange crop is much better than was expected after their severe freeze of last winter. There is a large per cent of rusty oranges, which are designated in many places as "Bronze and Russets." They mark on their boxes, "Bright," "Bronze," and "Russets." The bright is very pretty fruit; the bronze is just a shade off—just a little cloudy; the russets are dark, many of them quite so, but they are quite sweet and the growers claim they will keep longer than the bright ones.

From the large groves about Orange lake, they claim to have shipped about two-thirds of the crop. The same will hold good from most of the hammock groves, as far as I can get information; but from the pine-land groves the shipments have been comparatively light. I was in a grove to-day of 100 acres and they have not shipped any. They commenced to pick to-day. I saw the owner of a 75-acre grove and he said he would not gather any before the 20th of this month. I should think there is half the crop to go forward yet, most of which will be shipped in the next six weeks. If the California crop is keeping well, it appears to me it would be good policy to hold it back, at least to the middle of February or the first of March.

There will be a good many vegetables and strawberries ready to ship in the next few weeks (as they have string beans and tomatoes now in many places); but shipments will be light to what they have been, unless they get quicker time and lower rates of freight on the railroads, as the returns for the past two years have not been satisfactory, owing to their berries and vegetables going into the markets in bad order.

The thermometer has stood from 80° to 82° the past two days, but most of the time since I arrived in the State the weather has been delightful—from 50° to 60° in the day and about 40° at night. There were a few mornings that 32° to 29° was reached; it only being that low for a short time, but little damage was done.

Were I planting a grove in Florida, I would use some grafts or buds of California's choice varieties; and were I planting a grove in California, I should certainly use some of Florida's productions—prominent among them the Tangerines. They are much superior to the Mandarins, which appears to be the variety mostly used in California. They have both here, but there is a marked difference. The grape fruit is another of the citrus family that is coming into favor.

The possibilities of this State are very great, and the amount of oranges raised in the next ten years, at the rate of increase they have made the past five years, will be very great—perhaps a hundred times more than has ever been picked so far. I have seen trees, said to be five years from the graft, from which 8 boxes were picked last year, and they will pick 12 boxes this year. It is astonishing with what rapidity they grow, especially in the hammock lands. There are tens of thousands of the sour trees, of large size, grafted and left standing in the woods, and in place of bearing the sour orange they now bear a beautiful sweet fruit, with but little cost of any kind. About the only expense is deadening a portion of the forest trees, oak, magnolia, and other varieties, and after a time cutting them out with care, so as to not damage the orange trees. Many prefer to leave a portion of the forest trees.

The freeze of last year was quite disastrous to the lemon, and there are but very few of them in the State. Some are going to plant lemons largely, but it will be some time before the masses will take hold of the lemon.

There are many new industries springing up. The peach and Le Conte pear are being planted largely in some sections, and the strawberry will be canned extensively. It is said to bear very heavily for four months, and as no irrrigation and but very little cultivation is necessary, they can be raised very cheap.

There is a great difference in the Florida of today and of 10 years ago; and Florida 10 years hence will astonish those who have thought it a swamp or sandbank.

I expect to be in Chicago by the 20th of January, where, no doubt, I would like some of the beautiful weather I have been enjoying here. It is quite amusing to hear the people from the North as they come into the country (and the number is great) express themselves. I tell them they will have to excuse me from gushing, for have lived in a country for 37 years, portions of which enjoy for 300 days out of the 365 as fine weather as any one week they can select, and the land is much richer, and all the products that can be grown successfully in this State can be raised there (California), and many things that can't be raised in Florida. At the same time I admit they have a great State, and I think the next best one, take it all in all, to California. It is surprising to see the money being spent in railroads and indeed all kinds of improvements.

Sanford, Fla., Jan. 1. J. M. HIXSON.

Information About Reclaimed Lands.

EDITORS PRESS:—Could you or any of your experienced readers give me some reliable information on the following questions?

1. Is the reclaimed soil of the Sacramento valley (original tule land) suitable for growing rhubarb, canteloupes, squash, grapes, red currants, strawberries and other berries; and which vegetables do best on that soil (always provided one can irrigate whenever required and is no more subject to overflow)?

2. What quantity of such land is required to raise sufficient food (alfalfa or something else) for every cow kept for milking or dairy purposes (per annum)?

3. How many acres, set out in fruit trees, with some of the above-mentioned products raised between the trees, when they are young, can one work with one horse (distance from landing, two to three miles): and if one should require one horse for say 10 acres, how many horses should one be required to keep for 50 or 100 acres (I understand the proportion of horses required is comparatively less for larger quantities of land)?

While every year more land is being reclaimed, I have no doubt that reliable information on the above subjects will interest many of your readers beside myself. J. P. KOCH.

San Jose.

[No doubt our readers have much information on these and similar points. We should like to have a general contribution of experience on the subject of reclaimed lands. We have heard but little about them of late.—EDS. PRESS.]

Explosion Extraordinary.

EDITORS PRESS:—A few evenings since, as I was seated near the stove—for the evenings were a little cool—my eyes rested on the lamp chimney. "It is wonderful," said I to myself, "how long that chimney has lasted; it has been in the house a number of years, and in daily, or rather nightly, use for between two and three years, and only an ordinary chimney at that." Now I am not so superstitious as to connect these chance, though rather unusual, thoughts with subsequent events; neither shall I affirm that there was no connection; I merely state facts. The next evening, seated as before, the doors and windows all closed as usual, no appreciable change had occurred in the weather for some days previous—one of my sons, seated reading by the lamp, which had been lighted about half an hour, and turned up but just sufficient to read comfortably, his face partly away, so the lamp did not receive his breath, my eyes again rested on the lamp chimney, when suddenly, and with no word of warning, with a report nearly as loud as that of a revolver, the chimney lay scattered over the table in more than 150 pieces, or, counting the small particles, more than 1000. S. P. SNOW.

Santa Barbara, Dec. 25th.

THE APIARY.

Driving Bees.

EDITORS PRESS:—This is a term applied to the operation of compelling a colony or part of a colony of bees to leave their old hive. With hives having movable frames and straight combs in these frames, no driving is necessary, as each comb can be lifted out separately, and with the adhering bees transferred to another hive, or the bees shaken off and the comb returned to its old place. But when it becomes necessary or desirable to transfer or divide the bees in a box-hive or a frame-hive, having irregular and crooked combs, driving must be resorted to. For this purpose it is necessary to procure a

Driving-Box,

Which is simply a box of the same lateral dimensions as the hive, to be operated upon. If the hive is open at the top, it may remain as it stands; but if closed at the top, it must be turned upside down. The driving-box, which may have a few cross-sticks fastened inside for the support of the bees, is now placed, bottom up, over the open end of the hive, and a sheet or long strip of cloth wrapped round the joint, to prevent the escape of the bees. When all is secure, rap smartly on the sides of the hive with a stick or some tool, but not hard enough to loosen the combs, which may be fastened to the inside. Also give the bees a few puffs of smoke through the entrance or through a hole in the side of the hive. If there is no hole, one may be bored with an inch bit, and closed with a plug as soon as the smoke has entered. The smoke and rapping will frighten the bees and cause them to fill themselves with honey, whereupon they will ascend into the driving-box and cluster there. Repeat the rapping at brief intervals for about ten minutes, at the end of which time most of the bees will have left the old hive. The cloth should now be taken off, the driving-box carefully removed, and the bees disposed of, as desired. If the driving is done for the purpose of

Dividing the Colony,

The driving-box may be simply laid on its side in front of and with the open end facing a new hive, placed on the old stand, and a small piece of board placed so as to reach from the box to the entrance of the hive, upon which board the bees will soon travel into their new home. Sufficient bees must, of course, be left in the old hive to take care of the brood and to raise a new queen. The old hive should be removed to another stand at some distance. If the driving is done for the purpose of

Transferring.

The operator should proceed, as described in my article on "modern transferring." If, however, there is but little brood in the old hive, I have found it more expeditious to make one job of it, by making a thorough drive of the bees, breaking up the old hive immediately, transferring such combs as contain worker-brood, and which are straight and large enough to fill a frame in the new hive, and sacrificing the balance of the brood. As in this case the whole force of the colony are working together, they will in a very short time have more brood and in better shape than that which was lost at the time of transferring.

WM. MUTH-RASMUSSEN.

Independence, Cal.

THE VINEYARD.

The Making of Vineyards Upon Resistant Stocks.

EDITORS PRESS:—From the very numerous inquiries which have been made of me within the past few weeks for cuttings of the wild riparia vine, I judge that there is a greater disposition than has heretofore existed to adopt this remedy against the continued spread or increase of the phylloxera, and I am thereby induced to put on paper a few ideas upon the general subject of making vineyards upon resistant stocks, which I think may be of advantage to those contemplating the use of such stocks.

Allow me to premise by saying that I have already given away all the riparia cuttings of last year's growth that I had to spare. A great drawback to a more extensive use of resistant stocks heretofore has been the difficulty and delay in obtaining "a stand" in the vineyard. If a vineyard be planted with cuttings in the usual way of one cutting to the hill, my experience is that, with the most favorable of seasons and the best of care, a growth of 60 per cent of the cuttings is all that can be reasonably expected. The 40 per cent missing is to be replaced the second year with cuttings or roots, and the third and fourth years there is still other planting to be done before a "stand" is had.

Then, when the vines are grafted, if a success of 80 per cent is obtained, the owner is to be congratulated. Of the missing 20 per cent about one-fourth of the roots are unfit to be regrafted, and must, or ought to, be replanted, and it would be profitable to the owner to dig up and replant even a much larger portion of the roots that had failed to take the graft. It is thus seen that by this process several years pass before a "stand" is obtainable, and in the meantime *all* the land requires the same amount of labor and expense as if a perfect stand existed. In addition to these difficulties, it will at once be suggested to the experienced man that with every year after the second the difficulty of getting replants (of even roots) to grow is greatly increased, the neighboring growing vines sending out their rootlets to occupy the space allotted to the replant.

The sight of a resistant vineyard thus in the process of being made is of itself quite sufficient to discourage any but the most persistent owner, and nothing but the absolute certainty that resistant stocks afford the only remedy against the phylloxera could induce any man who had seen such a vineyard, during the years of struggle to obtain a stand, to adopt those stocks as the base of his vineyard.

I have described the troubles and difficulties just as I have experienced them, and as I have observed them in other vineyards made by gentlemen of large experience in the business. I think I have ascertained and demonstrated that there is no necessity for the existence of these troubles and difficulties, and that there is no reason why as perfect a stand should not be obtained by the use of resistant stocks, and within the same time, as can be had by the use of vinifera stock.

When the first resistant vineyards were started in California, it was erroneously supposed that nothing would be gained by grafting the roots until they were at least three years old. Until they were of that age it was claimed that, when split for the insertion of the graft, they would not have sufficient strength to clasp and hold the graft in place. This may be true, but the error consisted in assuming that the wedge system of grafting was the *only* proper way of grafting the roots. When Mr. Leonard Coates, of Napa, grafted my first planting of resistant stocks several years since, he adopted the system of (what I believe is known as) the "English cleft graft," and which requires that the graft after insertion shall be tied to the root. This system proving to be more successful than any wedge grafting that I had seen, suggested to me that it was unnecessary to allow the roots to grow long enough to give the split root strength to hold in place a wedge graft. This past year I tried the experiment of grafting in the vineyard upon roots respectively three, two and one year old from the cutting, and, as I anticipated would be the case, I had as full a measure of successful grafts upon the one-year-old roots as upon either the three or two-year-old ones. This experiment was not confined to a few vines, but extended to the hundreds and even thousands. I accept it, therefore, as a demonstration that one-year-old roots (from the cutting) can be as readily and successfully grafted as can be either two or three-year-old roots. And, if I am correct in this, the trouble and difficulty of making a resistant vineyard, with as perfect a stand and in the same time that a vineyard could be made with vinifera stock, disappears. It shows *that resistant cuttings planted in nursery can be grafted the next spring after they are planted and transplanted into the vineyard the spring after they were grafted and at two years old from the cutting.* I have abundantly tested the fact that riparia roots two years old can be transplanted with an almost inappreciable loss.

My vineyard is all planted, so that I shall be compelled to graft in vineyard, but I shall this spring, at the same time of grafting in the vineyard, graft about 25 per cent of each of the varieties grafted in vineyard upon one-year-old roots *in nursery* for stock with which to replant all missing vines and failures of grafts in the vineyard, and by this means I am confident that the annoyance, trouble and disgust attendant upon an irregular stand, and the consequent delay in getting the vineyard in full, even bearing, will be avoided.

I am so fully persuaded that the proper and economical plan of making a resistant vineyard is to graft upon one-year-old roots, that if I were making a new vineyard, I would graft all the roots in nursery, and only plant in vineyard roots already grafted.

It may be well to state another very important advantage of grafting upon one-year-old roots. Every one who has attempted to make a vineyard upon riparia roots must have been impressed with the care and expense attendant upon suckering the vines the first year. A three-year-old riparia root, the first year of its being grafted, will throw up a great number of suckers. Unless these are removed, they will divert the sap from the graft and cause a large percentage of failures of the graft to take. It is no small job to remove these suckers; they have to be removed with great care, in order to prevent the disturbance of the scion, and for the first season after the grafts are inserted they should be removed as fast as they show themselves above the ground, which will be once every week or 10 days. This makes it very expensive work. My experience is, that one-year-old roots, grafted, throw up only about one-tenth the number of suckers that are produced by three-year-old roots, thus reducing the expense of suckering to less than one-fourth than is attendant upon suckering three-year-old roots. One-year-old roots seem to afford only about that quantity of sap which is necessary to the growth of the scion, while that afforded by the three-year old roots is so much more than is required by the scion that it finds an outlet in the production of suckers. I trust that the ideas which I have thus hastily penned may be of benefit to others.

JOHN A. STANLY.

San Francisco, Jan. 13th.

A Fresno Raisin Vineyard.

EDITORS PRESS:—On Cherry avenue, in Central Colony, about five miles south of Fresno city, Miss C. M. Artz is engaged in the raisin vineyard business, and just as the picking and drying season was going out, we called at her establishment, and found her busily engaged in finishing up her last dryings, and gleaned from her the following notes:

Her varieties consist of the Muscat and Seedless Sultana. The Muscat is so far considered the finest and most profitable. In answer to a question as to the prospect for the future of the Sultana, she said: "As to the Sultana, we don't yet know what we may or may not do. The Sultana is fast coming to the front. The Muscat has the advantage of ripening earlier." This season she commenced picking the first crop of Muscat August 24th. The Sultana is not fully ripe till about a month later. The Muscat has also a great advantage over the Sultana in the matter of its much larger size.

Miss Artz has only eight acres in vineyard. Of varieties she has 1500 Sultanas, 1039 Muscats and 60 Cornichons. This last mentioned is one of the finest table grapes, being large, shapely, of beautiful color—a very dark purple—and of the finest flavor.

In the past season she had the extra expense of furnishing redwood stakes for the Sultanas and Cornichons, which cost $32 per thousand; the labor for staking and tying up, $10 for the whole. The cost of plowing or cultivating three times and hoeing twice was $26. Add to all this the interest on money invested and the taxes, and we have a summary of her expenses for 1886.

It is believed that the production has, for the

year, been about 1½ tons per acre. The Sultana shrinks in drying about 4 pounds to 1; the Muscat about 3 to 1. The Sultanas were not yet sold, but it was believed there would be between 5 and 6 tons after drying. The grapes from several Sultana vines, when fresh picked, were weighed, and the average was set down at 35 pounds per vine. The yield from one vine, not wholly exceptional, was 72½ pounds.

Miss A. thought it would be quite safe to estimate the production of four tons raisins from her 1039 Muscat vines. The entire crop of Muscats was sold in the sweat-box to parties in San Francisco, and delivered on cars at Fresno city at 4½ cents per pound. The extra care and expense involved in the packing is thus avoided.

The Sultanas after drying are cleaned and put up in sacks of about 100 pounds each. As her Sultanas are very nice, she hoped to realize from their sale at least as much per pound as she did in the sale of her Muscats. The large, handsome bunches of the Sultanas on the vine when ripe, and before picking commences, furnish a magnificent spectacle. The flavor and size of the Muscat raisin secures for it among consumers a popularity that bids fair to continue its reputation among growers as the most profitable variety. McD.

Fresno Co.

Sulphuring Vines.

EDITORS PRESS:—I have read in your valuable paper many comments on mildew on grapevines and remedies for the same. Many of them, however, were theoretical; and thinking that practical experience may be of use to some of your readers, and to confirm the theories already advanced, I beg leave to give you my experience.

I find that sulphuring can hardly be done too soon, particularly in localities where the vines are subject to the disease. I commence when the shoots are but an inch or two long and when many of them are but just starting. At this early stage but little sulphur is required, and, with me, has proved a very effectual preventive of disease. It also has the effect of destroying a small black borer which makes its appearance at about that time and does considerable damage if let alone.

The second sulphuring is applied by me when the vines are in blossom. These two sulphurings, if well done, and a good article of sulphur employed, are sufficient to check mildew. There may appear a few isolated cases of sickly vines later in the season, but with care they also can be cured.

The different qualities of sulphur have also been discussed in your paper. We have tried them all, and I, for one, am convinced that there is no economy in using any but the best. Last year I used a Belgian sulphur, branded Koch & Reis, which can be found, probably, at any wholesale druggist's. In former years, although always sulphuring, employing "French sublimed," "French rolled," Sicilian and American, I have always suffered more or less from mildew, whereas, last year, employing the Belgian, not over a dozen vines were affected out of over 40 acres. A neighbor who used the American article, and in larger proportions than I, suffered considerably from mildew.

The time may come when our country will produce an article as good as the imported one, but my experience teaches me that such time has not yet arrived. HENRY MEL.

Glenwood, Santa Cruz Co.

Grape-Grafting.

EDITORS PRESS:—Three years ago this winter, I set eight or ten acres to grape-cuttings, that I supposed were of the Muscat variety. Last year, when they came to bear, not more than half were of that variety, the balance being Black Hamburgs, Missions and some others that I have not learned the names of. I wish to graft these with the Muscats, and so write for information to the RURAL, hoping some one or more of the correspondents of the paper may be able to give a minute description of the process, and also best time of grape-grafting, and greatly oblige READER.

Wilmington, Los Angeles Co.

POULTRY YARD.

Lung Disease in Fowls.

EDITORS PRESS:—I have made a discovery in regard to poultry which may be of interest to the readers of the PRESS. Last spring, while living at Santa Cruz, I had a brood of Langshan chickens which I prized very highly. There came on a cold, wet spell of weather, and having to move from one portion of the town to another, and the place that we moved to being infested with rats, consequently I had to house my chickens in close quarters at night to keep them from being destroyed by the vermin. The result was that my chicks became diseased and they gave forth a stench from their nostrils that was quite offensive. As soon as the chicks were old enough to be moved to the perches in the poultry-house I began to carry them to the chicken-house where I kept the rest of the poultry, but they would as persistently return to their former coop. Some of my chicks gave forth a peculiar piping sound. I gave internally and applied externally various remedies, but all to no avail. They ate well, but began to get poor in flesh. One of the largest and poorest of the lot I killed for dissection. I examined the œsophagus, crop, larynx and nasal passages and found them in a normal condition. I next directed my attention to the lungs, and there I found the seat of the disease. Part of the lung substance was shriveled, and in the portions that were not shriveled tuberculosis was well marked—in other words, my chickens had consumption of the lung substance, with asthmatic symptoms. The lesson should teach us that poultry, as well as human beings, need plenty of pure, fresh air. DR. O. F. SHAW.

Oakland, Cal.

German Method of Preserving Eggs.

EDITORS PRESS:—Will you please publish in the RURAL the German mode of keeping eggs? In the winter of 1884–85, I used, in Philadelphia, eggs sent from Germany, and they seemed perfectly fresh, and unlike the "limed" eggs. We could boil them without the shell cracking. MRS. J. H. THOMAS.

White River, Tulare Co.

[Perhaps some of our readers can give the method desired.—EDS. PRESS.]

THE STOCK YARD.

Dehorning Cattle.

EDITORS PRESS:—In your issue of December 4th I noticed an article from the pen of W. A. Henry, Director of the Wisconsin Agricultural Experiment Station, in regard to dehorning bulls. Now if they are so dangerous why not dehorn all when young and avoid the necessity of this severe operation when they are grown? Thinking some of your many readers may be interested, I venture to give some of my boyhood experience.

When a lad of six or seven years of age, I remember being at Grandfather Murray's, in Maryland, when they were handling a lot of calves, and I asked mother what they were doing. She replied they were burning their horns to make "Mulleys" of them. I also remember that grandfather had a number of hornless cows.

We afterward migrated to Ohio; my uncle, James Benson, was already living there, and as years passed on I learned that he was treating his calves in the same manner, and a large proportion of his cows were without horns; occasionally one would have a small horn curled down close to the head; but most of them were so completely without horns that no one would ever suspect but that they were naturally polled cattle. At one time the neighbors thought he had quite an advantage. They had an assessor who interpreted the blank forms literally. They had a blank for "horned cattle" (in contradistinction to horses, mules, etc.); so he assessed none that were without horns, and consequently they escaped taxation. My uncle had some cows with horns, for at times in a busy season they were neglected until it was too late to make the operation a success; so they were allowed to wear their horns. I never saw the operation performed, but my uncle informed me upon inquiry that all that was necessary was to burn the horns with a hot iron just as they began to show through the hair.

Tracy, Cal. J. M. KERLINGER.

Another Way to Get the Horns Off.

There is still another way to get a hornless herd, and we admit we like it best of all. Our friend A. W. Cheever, editor of the *New England Farmer*, tells about it as follows: Pure bred polled bulls have great power for breeding the horns off from other cattle, particularly from the Jerseys and Shorthorns which have horns rather under medium size, and from the common native cattle of the country. When in Chicago a few weeks since, it was our pleasure to be present at an annual meeting of the Red Polled Cattle Club of America, an organization that has been in existence only about three years, but which has done some excellent work in introducing polled dairy and beef stock into this country and in awakening an interest in polled cattle. Just before the close of the meeting a census was taken to learn how many polled cattle were represented by the members present. Many of the members reported more grades than pure breds (though there are nearly 600 of the latter ready for registering), and the writer asked what he was to understand was meant by the term "grade poll," whether the half or three-quarter bloods, having horns, could be called grade polls. The answer given by Mr. J. C. Murray, treasurer of the club, was that the grades very seldom have horns; he had never seen or heard of any among the breeders of red polls. The general absence of horns on the grade polled Angus is probably equally noticeable. In our own experience in breeding from pure polled cattle, the horns were exceedingly rare on the progeny, and in breeding from grade polled bulls the heifer calves rarely had horns; the bulls were more likely to have them.

HORTICULTURE.

Notes on Pruning.

EDITORS PRESS:—The weather is still dry, with cold nights and north winds. Last night we had a little frost and the first ice of the winter, which was thick as window glass. We had about one and one-half inches of rain last week, and the ground is wet enough to work well. Many are plowing in their orchards and vineyards. It is early yet to plow, as the weeds are not large, but if the rain should fall short, those that plow early, often and deep will get the best crops.

Pruning vines was commenced here before the grapes and leaves were off of the vines, which was much earlier than common. Vines pruned early start to grow sooner than those pruned late, and so are more liable to be caught by the frost. Generally, those that are afraid of frost put off pruning as long as the sap does not run free enough to cause the vines to bleed badly. Tokay vines should have much more wood left on than other kinds, especially where there is much wind. When there are but few buds, they grow very rapidly, are very tender, and often the wind strips the vines, whereas if there are a large number of buds they do not grow so rank, but much stronger, and protect each other.

Young peach trees are not so apt to drop their fruit if pruned late, and I think other trees that drop their fruit might be benefited by late pruning.

The "Long French" prune but seldom bears a full crop here. It does well until the prunes are one-third grown, when they fall off. Other prunes are not troubled in that way. Pear and prune trees, after the third year, should be left one year without pruning. This will cause the tree to form a head instead of running into long, thin switches, and cause the fruit buds to form.

Many people see the mistake they made years ago in trimming their trees up and starting them to branch out two or three feet from the ground. With a tree, to make a success, you must have good material to start with; then it is easy to guide it properly if you know how; but once make a mistake and it can never be corrected. Fruit trees that have to be gone over two or three times to gather the fruit should start to branch out not more than a foot from the ground. Then, if cut back properly when it is five years old, the head is formed, and a man can stand on the ground or on a very short ladder and gather the fruit. It is much cheaper to hire four feet square of ground around the tree spaded up than to hire a man to run up and down a tall ladder to pick the fruit. Heavy pruning will cause a large growth of wood, and light pruning will cause the tree to set full of bloom buds.

Cherry and almond buds are beginning to swell, and will blossom in two weeks if warm weather holds. G.

Vacaville, Jan. 9.

Division of Pomology; Department of Agriculture.

EDITORS PRESS:—I have read with much interest your account of the Citrus Fair, in Sacramento, and other pomological matter in late copy of your paper. This division has only been established this winter by Act of Congress, which took effect the first day of last July. We hope to make it a means of good to the people of California as well as the States on this side the mountains. If you will kindly mention the fact of its establishment and ask your readers to communicate with me on any pomological matters, and especially regarding new fruits, it will be gratifying and I trust helpful to each other. The fruit industry is one of the main sources of the wealth of California and needs all the help it can get. It is my purpose to visit your State to examine into the facts upon the ground at my first possible opportunity. Respectfully, H. E. VAN DEMAN,

Chief of Div'n of Pomology, Dept. of Agr.

Washington, D. C.

[We are glad to hear from Mr. Van Deman, whom we have known for some time by his reputation in connection with pomological matters. No doubt the California fruit-growers will be glad to see him out here and to aid him in his useful work in every possible way.—EDS. PRESS.]

Assessment of Trees and Vines.

EDITORS PRESS:—There is legislation much needed to stay the practice of assessing fruit and ornamental trees and vines separate from the land—that is, trees and vines not of natural growth, but those that have been transplanted. The culture is laudable, and deserves encouragement as other industries of the State.

There is nothing in the State Constitution defining the trees and vines as improvements. There are, however, structures, always known as the improvements—such as the usual buildings and fencing; they are assessed separately from the land on which these rest, and these only. Such being my view, I should be satisfied with the repeal of the statutory provision, unsupported by the Constitution or lawful usage, and thus have a speedy and deserved remedy. Never will the like be re-enacted.

Again, further, there is no good law in distinguishing between laudable and, at the same time, lawful agricultural industries in this State. In this latter view the enactment is void.

Were I a member of the Assembly—which I am not, and shall never be—I would unhesitatingly offer a bill for the repeal of the statute.

But for prolonging this piece, I would inform you of the wrongs inflicted. I reserve this part until called for, should there be occasion.

San Francisco. CHARLES AIKEN.

SHEEP AND WOOL.

The Angora Goat Register.

EDITORS PRESS:—Since the establishment of a register for Angora goats, viz.: of pure-bloods or Class 1, and high-grades or Class 2, by the American Mohair-Growers' Association, at their meeting at San Antonio, Texas, held on the fourth and fifth days of October, 1886, which proceedings appeared in the RURAL PRESS in its issue of Nov. 6th, the advantages derived from said register are generally admitted by the breeders of Texas; and it appears that it will be to the interests of the California breeders, at their meeting in September next, to face the question squarely; and to discuss matters connected therewith thoroughly, through the columns of the RURAL PRESS, will help the cause. The *Texas Farm and Ranch* of recent date gives the views of G. A. Hoerle, corresponding secretary of the American Mohair-Growers' Association, on the importance of a register, as follows:

"A joint co-operation of all breeders is indispensable for the success of the industry, and the success of the industry at large necessarily must be an advantage to every individual breeder of good stock. The owner of high-bred stock will be benefited by a union to secure the sale of his animals, and should expose every case of fraud which comes to his knowledge. So should the owner of grades, for he needs a union to help him protect his pocket-book, and it is high time that every honest breeder should recognize this fact and act accordingly. We need a strong association, extending all over the Union, and a carefully kept register."

At the Texas meeting above referred to, committees were appointed, one to represent the pure-blood breeders and one the grade breeders, who were instructed to define certain points of excellence, by degrees, to each class of Angoras. This committee adopted rules for registry, which were printed in the RURAL PRESS of Nov. 5th last, and there were also elected ten members for examining commissioners of Angora goats, whose duty it will be to examine goats presented to them and to issue permits for registry to the keeper of the register for Texas, according to the class to which they belong.

The Texas Association will hold its next meeting on the first Monday of June next.

The Angora goat-breeders of California, at their meeting on Sept. 16th last, discussed the question of joining the American Mohair-Growers' Association of Texas to establish a standard for a pure-blood Angora goat or a system of registry, and it was resolved that action on this subject be laid over until the next annual meeting.

Now as the Texas breeders have already established a register for the Angora goat, we cannot delay acting on this subject at our next meeting at Sacramento, and to do justice to the matter it should be discussed. California breeders who desire to join the association and assist the goat industry by their counsel and in other ways can become members by sending $2.50 to the secretary, and their names will be entered as members of the association.

JULIUS WEYAND,
Sec'y Angora Goat-Breeders' Ass'n.

Colusa, Cal.

UNSHOD HORSES.—Mr. P. H. Fagin, a furniture and piano mover at Malden, Mass., gives his experience with barefooted horses. He has driven three horses (two weighing 1100 pounds each and one 1300 pounds) since January, 1885, without shoes. The large horse has always been lame since he bought him 14 years ago, until he took his shoes off. The animal has not gone lame since. He has driven on hard, flint roads, and, of course, on pavements in Boston. The horses travel better than before their shoes were taken off. They are not afraid on slippery pavement as they were with shoes on, and there is no trouble in getting round on any kind of going in the city. Mr. Fagin drove to Shrewsbury, 35 miles from Malden, after two days' rain, in February, 1885, when it was so icy that a boy could skate all the way, and had no trouble. He left home at 7 A. M., arrived at Shrewsbury at 3:40 P. M., and the horses did not slip. The hoof is hard and broad, and the frog is full and plump and on a level. They have driven two winters on ice and snow altogether better than when they were shod. Their feet are better for all purposes, they can trot faster, pull as much and go more miles in the same time than they could when shod.—*Boston Herald.*

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Joint Installation at Sacramento.

EDITORS PRESS:—The 8th of January was a beautiful winter day. It was the occasion for installing officers of both the Pomona and subordinate Granges for 1887, which took place at 1 o'clock at the hall of the G. C. B. Association. The day was also set apart for the inauguration of the Governor and Lieutenant-Governor of the State at the capitol, which brought together a great concourse of citizens. A large number of P. of H. attended the joint installation. At 12 M. all repaired to the banquet hall, and prepared the inner man for the duties of the afternoon. On reassembling the officers-elect were called from both Granges and took seats set in cross range of hall. W. M. S. G., Wm. Johnston, officiated as installing officer with his assistants, Sisters Hattie Jones, of Yuba Grange, and Jackman, of Sacramento Grange. The W. M. gave the class a fine lecture on the duties before them—perhaps one of his best efforts during the years of connection with the Order. Bro. A. A. Krull, W. M.-elect of Pomona Grange, No. 2, in taking the chair, delivered the following address:

Sisters and Brothers—I thank you for your kind appreciation. In assuming this office to which I have been chosen, I realize well the importance of the position and the obligation taken with the pledge to fulfill the duties of the office as Master of this Grange. I feel that I need your assistance to accomplish the work that we were organized for. Its organization is designed to strengthen the subordinate Granges. The first and most important duty, when elected to an office, is to faithfully perform whatever duty is assigned. I hold when a member is elected to an office it is his duty to promptly fill his place and study to do it well. Every member should be courteous to all, honest in all deslings with his fellow-men, chaste in thought and language, pure in heart and life, an earnest seeker after knowledge, a zealous Patron, a true patriot and an intelligent philanthropist. An Order so composed would be strong and useful in promoting the interest of agriculture of all classes. Fellow-Patrons! let us ever respect our profession, and bear in mind that moral and mental worth ranks before worldly wealth or honor, and as Worthy Patrons in our glorious fraternity, we can justly claim to belong to the true nobility of the land.

As the W. M.-elect of Sacramento Grange, W. W. Greer, was introduced, the retiring Master, G. W. Hack, made a few remarks, and the former responded, thanking him for his kind greeting, reviewed his past administration and congratulated him on his success, saying that words cannot express the deep sen timent of esteem and gratitude the members of Sacramento Grange owed to him for the labor he had performed and the good he had accomplished. Bro. Greer said his earnest hope was that he might be able to present an administration productive of as much good, and be able to retire from office with as good a record. He appreciated the mark of their esteem, and would long retain in his memory the compliment they had paid him, remembering the day with feelings of the greatest pleasure and pride. He said he was not unmindful of the many responsibilities that would devolve upon him in his position as Master, but hoped to discharge them in a manner that would reflect credit on himself and be acceptable to the Order, and would use his utmost endeavor to conduct their business and preside over their meetings in such a manner as to merit the respect and approval of all. He hoped the succeeding year would be one of pleasure and profit; requested all members to put forth their utmost individual and united efforts for the good of this Grange, with the best interest of the Order at large. He closed by asking all Patrons to try and introduce the noble principle of our Order into their lives, and labor to carry out our Declaration of Purposes.

The W. M., in giving the obligation, stated he would follow the course that the W. M. of the N. G. did at the last session, which he thought was far better than the old way—that was, to read it, and let the officers accept the same. All the officers were introduced and made short speeches, showing willingness to fill their respective chairs to the best of their power and usefulness to the Order.

At no previous time in the history of Sacramento Grange have so many young members assumed positions within the gift of the Order. Eleven out of thirteen are young sisters and brothers, and seven of the whole number are sisters. The old members have given way to allow them to step forward. The charge was given them by the W. M. S. G. at the opening: that the gift of the office means something more than filling it; work must be performed to make it a success—the ladder of fame requires step by step to reach the last round, and the ones who gain it stand high in the estimation and approval of their fellow-men. The Grange intends to stand by and encourage them in their work; make it a school for them; educate the mind and heart to enter the drama which they will enact in various vocations as suits their taste and position. I believe it is the intention of each to commit the work to memory, which will make all occasions pass off smoothly and easily and produce a better effect on both candidates and auditors.

The Past Secretary and Treasurer read their annual reports. Work is being laid out for the next literary day, which is soon at hand. The opening year looks propitious, and all expect to be highly entertained in the exercise of musical and elocutionary powers during future sessions.

G. R.

The Farmers' National Congress.

The Farmers' Congress, the call for which appeared in the RURAL PRESS of December 4th, was held last week at Washington, D. C. Resolutions were adopted urging Congress to make the Commissioner of Agriculture a Cabinet officer, and extend the benefits of the signal service to the farmers; to regulate interstate commerce and pass an experimental farm bill; and provide for the complete development of the system of waterways of the whole country. It was also asked that American ministers in France and Germany be instructed to use all proper means to prevent placing of restrictions upon American farm products properly inspected and shipped.

In accordance with resolutions adopted, President Beverley appointed a committee to confer with the Senate in relation to the Secretaryship of Agriculture and a committee to confer with the Agricultural Committee of Congress and the State Department.

Among the resolutions reported was one to the effect that the clause in the charters of national banks, which prohibits their loaning money on real estate, works great injury to farmers of the United States by denying them banking privileges, thus causing them to pay a higher rate of interest than any other class of citizens, and that the farmers of the United States, in congress assembled, do most respectfully but urgently ask the Congress of the United States to repeal the same.

It was proposed that members call in a body upon the President of the United States. A message was sent to the White House to learn the President's convenience. Colonel Lamont replied that the President was then engaged, but would be pleased to receive them the next day, Jan. 14th, and 1:30 o'clock was the hour set for calling.

The delegates of each State and Territory were asked to call upon their representatives in Congress and personally endeavor to hasten legislation on the matters which have been discussed. The congress adjourned to meet in Chicago on Tuesday before the meeting of the Fat Stock Show in November next.

Installation at Stockton.

EDITORS PRESS:—The office of Master in the Grange is full of honor, but no sinecure; and he who takes it has not only to gather the flock, but to see that they make the most of the hour and to combat dullness, and, when driven to the last resort, scatter them with a recess to liven up. In view of this, our sensible young master's gayety at casting the official harness and taking the steward's spud was pardonable.

W. P. M., Ketchum, who has twice before served us, was elected on the first ballot and installed January 8th by District Lecturer Hoffman and Bro. Barber before an open gathering, made up of Stockton and Lodi Granges, and many friends who admired and enjoyed the teachings of the ceremony; after which the wide-awake new Lecturer, Sister Merrill, regaled them with "Sockory Setting the Hen." On taking the chair, each new officer, with a readiness that showed the good of Grange drill, made a neat little speech of appreciation and fidelity.

In the forenoon a Grange meeting was held, finished by forming into march—officers first, then guests and members, who more than filled the three tables, made tempting by willing hands. Gratitude rose in each heart at the Master's charge and Sister Stowe's benediction.

The Feast was one of installation and of thankfulness for the year's abundance—the anniversary of the battle of New Orleans, and perhaps the beginning of a battle with drouth and consequent self-denial; but hope perched on our banner and for the day we had joy and sympathy, and for the parting, a pleasant memory.

MRS. W. D. A.

WORTHY OF MENTION.—The recitation delivered by Miss Jessie Weed, the youngest member of Temescal Grange, after being installed into office recently at Haywards, was well received. The youngest member of Eden Grange, Sister Obermuller, in a musical voice, rendered a very pleasing song. Sister Roxie Dennis, as organist, added much life to the occasion. The new departure made by Worthy Lecturer Flint, in introducing, with installation ceremonies, so much freedom of expression and diversity of comments and recitations, was a much-enjoyed success.

GRANGE ITEMS.—We glean from the *Patron* that Bro. B. F. Frisbie, of Yuba City, assisted by Bro. H. S. Graves, installed the officers of North Butte Grange.....Bro. G. P. Loucks, assisted by P. M., Seaman, conducted installation at Walnut Creek on the 8th....A new Grange is to be organized in Rough-and-Ready by colonists from Grass Valley....San Jose Grange conferred the third and fourth degrees on two new members, Jan 8th, after which Bro. Pilkington acted as installing officer, with Bro. F. Dunn as conductor.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

It is with sincere pleasure that we note how generally not only the Grange, but other agricultural papers, are printing these weekly columns gleaned from our National Grange field. Literally from Maine to Oregon are these good rural papers co-operating in the work of showing the farmers of our country the necessity of organization and laying before their readers the practical work and progress of the 20-year old Grange. A careful record will be kept of all these favorable journals and their names published in our National Grange reports at the end of the year, that Patrons may know who are willing to "aid us in our efforts toward reform," and advance the interests of our whole country by organizing, educating and protecting this most important class that feeds and sustains all the rest. Farmers are more and more learning the value of the agricultural press and to stand by and to support those that are doing most for them.

The Grange recognizes the fact that the American farmer is the victim of certain evils, and it proposes to correct these. In order to accomplish this it organizes the farmers into one harmonious body; makes them a unit, and then exerts their combined strength for their protection.

The *Maine Farmer*, in a late issue, says: "The work of the Grange has been carried on in a quiet manner, yet has been an active influence in elevating the sentiment of the farming classes and educating to an appreciation of the importance of farming as a business, and to the means and methods of promoting its prosperity. So long as the work is carried on in this manner it must meet the approval of every good citizen."

Reports from the late meeting of the Kansas State Grange say: "Good, sound, practical steps were taken to push the organization in the State this coming year." Brother Wm. Sims, who is Secretary of the State Board of Agriculture, after being out of Grange office for a few years, but always a worker, has been again called to the front as Master of the State Grange.

Progress.

Brother A. Shumway, special Deputy, has organized a new Grange in Cottonwood, Idaho Territory. Brother Boice, of Oregon, reports the outlook for the Grange in Idaho very encouraging.

Gerard C. Brown has organized a very substantial Grange at Hanover, York county, Pa., and reports to the National Secretary that 30 or 40 candidates are waiting to be initiated.

A. W. Valentine, special Deputy, with the able assistance of good Bro. D. H. Thing, lecturer of the State Grange of Maine, has organized a new Grange at Newry, Oxford county.

Brothers Boice, Brown and Thing urge, by letter, the Secretary of the National Grange (so the latter writes us) to be lively and send out the necessary documents as soon as possible, in order that these new members may get to work. Secretary Trimble does not object to this urgency, in fact rather likes it, but wishes to know how he can improve on his present "liveliness," which is to send the outfit, etc., by express on the same day on which the application is received. We hope the Deputies will keep it lively for the Worthy Secretary, and we suggest to him to make it lively for the organizers and urge them to send more applications. We doubt if there ever was a period in the history of the Order where better, more practical and solid work was done by the National, State and subordinate officials than is being done to-day.

New Gloucester Grange, No. 28, Maine, has dedicated a fine new Grange hall. It is clear of debt. State Master Robie was the installing officer, and delivered an able address, "for the Good of the Order."

J. H. Walker, Secretary of the Indiana State Grange, writes: "The annual session of our State Grange was short, but, by Joe, the best we have had in many a day."

Nine more different localities in Connecticut are inquiring about and talking of organizing Granges.

Sister S. J. Back, W. L. of the Indiana State Grange, has just finished a successful lecture trip in Kentucky, under National and State Grange direction.

The Lecturer of the National Grange is filling a series of 35 lectures in New Hampshire, arranged by the State Grange. Deputy N. L., D. H. Thing, is hard at work in Vermont. He will lecture in that State once or twice every day until Feb. 1st. Deputy N. L. Whitney is again up and doing in Nebraska. He will probably be kept busy most of the year. Arrangements are being made for more "official" work by other workers.

Question for subordinate Granges: What legislation is needed by the farmers of our State, and are we as an organization doing our share of the work in keeping the needs of such legislation before the Legislature of our State?

"Then with minds that honor freedom,
Strong in strength that shields the weak,
And with freeman's peaceful weapons
We'll enforce the rights we seek."

TEMESCAL GRANGE.—Bro. J. V. Webster made one of his best speeches at Temescal Grange on Saturday last, touching the legislative needs of farmers and the welfare of the Grange Bro. Kelsey gave some information concerning his visit to Merced, Tulare and other counties south. He feels encouraged to believe that a number of dormant Granges can soon be revived in different parts of the State, and will use his best efforts therefor. Two applications for membership were duly received. The members expressed themselves as well pleased with their joint meeting with Haywards Grange on the previous Saturday.

The mentions of the death of Bro. A. D. Nelson were made with much feeling. His daughter, Mrs. C. C. Walter, resides in Oakland, and while visiting her home, Bro. Nelson had repeatedly attended Temescal Grange and become endeared to its members, as he had indeed to all who met him in the State Grange and other gatherings.

Bro. Webster, Sisters Kelsey and Babcock were appointed a committee to report resolutions of respect to the memory of Bro. Nelson at the next meeting.

The Signal Service and Experiment Stations.

The following communication from the Secretary of the National Grange is just at hand:

WASHINGTON, D. C., Jan. 15, 1887.

DEAR SIRS:—Under the instructions of Hon. Put Darden, Worthy Master of the National Grange, I have the honor to forward to you the following resolutions and reports unanimously adopted at the Twentieth Session of the National Grange, Patrons of Husbandry, held in the city of Philadelphia, from November 10th to 18th, and to ask your favorable attention to the same:

WHEREAS, It is of more importance to farmers than to any other class of citizens to know what changes are likely to occur in the weather; and

Whereas, The farmers furnish three-fourths of the exports of the country, and are the largest tax-payers in support of the General Government; therefore,

Resolved, That the Congress of the United States be respectfully requested to pass such laws as shall furnish the benefits of the Signal Service to the farmers of the country.

On motion, the Committee on Education made a special report, under a suspension of the discussion of the report of the Committee on Agriculture, as follows:

Reference of the measure now pending in Congress, as formulated in what is known as the "Hatch bill," providing for the establishment and maintenance of Agricultural Experiment Stations, having been made to this Committee, its members have made critical examinations of the provisions therein embraced, and they unite in the conclusion that the work contemplated is a proper subject for which cost should be met by the General Government.

There is also unanimous agreement by the committee to the proposition that such work should be delegated to Experiment Stations, already established under State control, where such institutions are now in operation, and the committee, therefore, recommends that this body advise such change in the bill as will give it this effect. Manifestly, it is in accord with the spirit and purpose of the bill that the work be deputed to those Stations where they have already been proved worthy of confidence and support. Your committee, therefore, deems it a matter of economy and wisdom that this appropriation for such States as have independent Agricultural Experiment Stations be given to them rather than to new Stations. Without this change, it is very plain that the full purpose of the bill will not be attained.

Another change desired by the committee is, that the appropriation for any State in which there is no Experiment Station under State control, and in which a college has been established under the provisions of the land grant act of 1862, and has departed from the purposes of that act, by neglecting agricultural education, and in which State there is a duly organized Board of Agriculture, the appropriation be made subject to direction by such Board for the uses contemplated in the bill, and that upon the establishment in any such State of an independent Agricultural Experiment Station, the appropriation shall go thereto without the intervention of authority exercised by any college, board or faculty.

It is, therefore, recommended that this National Grange endeavor to make such representations to the House Committee on Agriculture as will result in the changes herein proposed.

Resolved, That the Worthy Master of the National Grange be instructed to bring this matter before Congress, in such a manner as will plainly set forth the views of our National Order.

Resolved, That the Worthy Master of the National Grange is hereby instructed and empowered to enforce the legislative provisions of this body, as embraced in the various reports and resolutions submitted at the present session, by committees or otherwise, as he may deem necessary. Very respectfully,

JOHN TRIMBLE, Secretary N. G.

It will be seen, from the brief report given elsewhere of the doings at the Farmers' Congress, that the latter body took action in the same line with the National Grange. We made mention a fortnight since of the courteous recognition by our Californian M. Cs. of the State Grange's resolution favoring the Hatch bill, and we can hardly doubt that all these combined influences will be felt to some purpose in the national halls of legislation.

Grange Elections.*

ANTELOPE GRANGE.—John Sites, M.; H. A. Loyan, O.; Geo. F. Myrick, L.; Wm. F. Sites, S.; John D. S. Taylor, A. S.; Sister Loyan, C.; John D. Rosenberger, T.; P. Peterson, Sec.; H. C. Stanton, G. K.; Sister Rosenberger, P.; Sister Sites, F.; Sister Clark, Ceres; Sister Cora L. Pryor, L. A. S.

GRASS VALLEY GRANGE.—J. W. Stewart, M.; S. L. Richards, O.; John T. Rodda, L; Thomas Lee, S.; A. G. Peterson, A. S.; Mrs. A. G. Peterson, C.; A. Matteson, T.; A. Henderson, Sec.; M. Berryman, G. K.; Mrs. A. Matteson, Ceres; Mrs. S. L. Richards, P.; Mrs. J. W. DeGolia, F.; Mrs. Geo. Rowe, L. A. S.

*Secretaries, or other officers, are invited to send us lists of officers elected, date of installations, and all other interesting matter for publication.

DEATH OF FATHER NELSON.—A. D. Nelson, affectionately known to Patrons as "Father" Nelson, died at his home in Butte county on the last day of 1886, in the 75th year of his age. He was born in New York State, but moved while yet a boy to the then wild Michigan, where he grew up, married, and followed farming until 1859, when he brought his family to California and engaged in wheat-growing. Upright, truthful, and uncompromising in his support of what he deemed just and right, he was devoted to Grange principles and their earnest advocate with tongue and pen. We hope to refer again to the life work of this venerable and beloved member of our Order. His bright face and hearty greetings will be missed, especially at State Grange, whose sessions he was wont to enliven by his presence.

WALNUT CREEK GRANGE will hold an open meeting Saturday evening, Jan 22. The public are cordially invited. Beside music, readings, and recitations, the following resolution will be discussed: WHEREAS, The use of intoxicating drinks is an evil that it is desirable should be abolished, therefore *Resolved*, That suitable laws should be passed prohibiting its manufacture and sale except for medical and mechanical purposes.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

ORANGE AND OLIVE PLANTING. — Oroville *Register*, Jan. 13: In 1875 there were 450 orange trees in Butte; in 1881 the number was 3000, while last year it was estimated at 6500. At the present time there are not less than 10,000 orange trees in the county, and the number will be greatly increased during the present year. Hon. John C. Gray received a large lot of olive cuttings last night by express. He will not cease putting out olive trees until he has 50 acres in bearing.

Contra Costa.

JANUARY GRAPES.—Martinez *Gazette*, Jan. 15: On Tuesday Dr. Strentzel, of the Alhambra orchard, presented us with a box of Black Ferrara grapes, which were picked fresh from the vines January 11th. Although not so firm as the midsummer grapes, they still retain their rich, rosy, dark color, their sweetness and their agreeable flavor. The writer was raised in this county and he remembers how, Christmas after Christmas, he plucked grapes from the Mission vines on the old homestead in the San Ramon valley, looking upon the rich clusters as he did upon the numerous gifts of Santa Claus, as a matter of course. But attractive, eatable grapes in the middle of January are comparatively rare, even in California. These, from Dr. Strentzel's, are far better than the average first grapes of the season.

SEEDLINGS FROM FRANCE.—This week Mr. J. T. Bogue, proprietor of the Alhambra nurseries at Martinez, received a half million seedling pear, apple, cherry and plum trees from France. He also received 150,000 seedlings from New York. It is his intention to set out 250,000 trees in his nursery here. The trees arrived in splendid condition.

Fresno.

DATES.—*Expositor*, Jan. 12: We have long known that the date would grow in this valley, many plants having been raised here, but whether it would fruit has been a question. Now, however, this has been demonstrated, a date palm having fruited at T. C. White's, in the Central Colony, the past season. The date is one of the handsomest of the palm family; it grows readily from the seed taken from the ordinary date of commerce, and we would advise every farmer to plant a few.

DEVASTATING FLOCKS.—*Delta*, Jan. 13: A gentleman from Fresno, just down from the head of Kings river, says the sheep have completely eaten out the feed in that section. Even the pine leaves and tree-mosses around the young trees have entirely disappeared. This close feeding will result in killing the young pine and undergrowth, leaving nothing to check the rapid disappearance of the snow when warm weather arrives. He predicts that in a few years, if this kind of pasturage is continued, our late spring floods will be things of the past, for with no shade to hold back the snow the first warm weather will send it down in a deluge, all at once.

Humboldt.

BLASTING STUMPS.—Eureka *Standard:* An interesting exhibition of the power and utility of "high explosives" in removing trees and stumps from the ground, was given Sunday at the farm of B. Glatt, beyond Ricks' prairie. A party of 25, including several ladies, repaired to the field where a redwood tree six to seven feet in diameter and 100 feet high was selected as a victim. A small hole about eight inches square and three to four feet deep had been sunk at an incline under the roots, 65 pounds of Vigorit powder was placed therein, the fuse attached and the charge tamped down. The fuse was lighted, and the spectators were safely behind trees and stumps, when the tree rose perpendicularly 10 feet in the air, fell back into the pit, jarring nearly all the limbs off, tottered a second and came down with a deafening crash. An inspection showed all the larger roots thrown out of the pit, and the smaller ones jarred so as to be readily detached from the earth. As Mr. Glatt remarked, "a better use to put it to than blowing up street cars."

Los Angeles.

AFTER THE BUGS.—Pomona *Times-Courier*, Jan. 15: The County Inspector of Fruit Pests, Mr. McMullen, was in town Tuesday, and, assisted by Mr. J. A. Driffel, one of the local inspectors, made a careful search for the cottony-cushion scale in the orchards of R. F. House and James Loney, adjacent to the Wolf place, where the scale was recently discovered. These orchards were found to be free from the scale, and it is hoped that the pest is confined to the Wolf place. Mr. Driffel has spent the entire week inspecting different orchards, and finds the San Jose scale quite prevalent. In two of these orchards the trees were condemned, and were immediately dug up and burned. In others only a few were condemned and destroyed, those which were only slightly infected being severely pruned and treated with coal oil and sprays. In every instance it was imported trees that were "buggy," home-grown trees being exempt. Mr. Driffel says he has encountered no opposition thus far, every one displaying a readiness to adopt such measures as the inspector thought best, even to the extent of destroying trees.

TOMATOES.—*Herald*, Jan. 15: John G. Nichols, Jr., had 20 acres of land near Cahuenga planted with tomatoes, and he now has tomatoes until he can't rest. He has made a contract to sell his tomatoes to a firm in this city for 70 cents per box. As he can deliver 300 boxes per week, and the tomato season lasts six months, the gross result of his 20 acres in half a year should be $5460. On that sum Mr. Nichols and his family need not starve.

CORN ON THE "DESERT."—An idea prevails that across the Sierra Madre is the great forbidding Mojave desert, where vultures and wolves are the graves of the traveler. James P. Jones gives an illustration of desert products by presenting the *Herald* with a sample of beautiful white corn grown in the Mojave valley without irrigation. This corn was planted in July last and gathered in September, and yielded 100 bushels per acre. The quality is unsurpassed. A single ear shows 1030 kernels by actual count, and generally each stalk had two ears. A yield of 2000 fold is pretty good for a reputed desert. This grain is grown at an elevation of 3000 feet above the sea level, and appears to be free from the fly and its product, the worm, that infest the ears of the lowland corn.

Monterey.

STARTING ORCHARDS.—Bradley Cor. Salinas *Index*, Jan. 13: A Fresno nurseryman, who sent an agent through here last summer taking orders, delivered hundreds of trees Friday. There were peaches, apples, plums, nectarines, apricots, cherries, prunes and oranges; also grapevines and currant bushes. It is believed irrigation will be necessary at first. Some have dug a large trench and buried the roots till rain comes; others have planted them in the moist sands of the river. Much is expected from the introduction of this new industry.

Napa.

USE FOR PALM LEAVES.—*Register*, Jan. 14: They are utilizing the leaves of the palm and palmetto trees that grow in the garden of "Hedgeside" farm, by splitting them into strings and using the same in place of hemp in tying the vines trained to stakes after pruning. The fiber of these leaves is very tough and as pliable and strong as bale rope. A half dozen trees will supply enough of this tying material for a good sized vineyard. It will thus be seen that the palmetto and palm are useful as well as ornamental.

Placer.

MIDWINTER BERRIES.—*Record-Union*, Jan. 18: A fine sample of ripe raspberries was received at this office yesterday, from the premises of Dr. Frey, near Newcastle, where they were grown in the open air, without any protection. They were as perfect in size and color as if picked in the summer, and the flavor was exquisite.

San Luis Obispo.

FOOTHILL VITICULTURE.—A correspondent of the San Luis Obispo *Tribune* lately passed through St. Remy, the home of A. B. Hasbrouck, and in conversation with him gained an idea of what might be expected from intelligent grape culture in these hills. The lands which he had devoted to this purpose were steep foothills, the soil light and thickly sown with loose friable stones. The hills had been sparsely wooded, but otherwise the land seemed to be entirely valueless, bearing only a scanty vegetation which rapidly dried out. In 1883 Mr. Hasbrouck set out vines as an experiment, using such labor from time to time as could be conveniently spared from the labors of the ranch, which is a large one, covered with cattle. That year he set out about 3000 vines, putting in 700 to the acre. They thrived remarkably and he was so encouraged that the succeeding year he set out about 2000 more. The healthy flourishing growth seeming to warrant it, in 1885 he added 6000 vines, and this year he increases it to 25,000. Experts pronounce the culture eminently successful and these hills and this climate seem specially adapted to the production of grapes, raisin and wine. From the vines set out in 1883 and 1884, Mr. Hasbrouck sold this year over 10,000 pounds of grapes in San Luis and vicinity, realizing therefrom about $300. In addition to which he made three barrels of Zinfandel wine and about 100 pounds of raisins, Seedless Sultanas, sun-dried. The wine promises to be of excellent quality and the raisins are very fine.

San Joaquin.

EDITORS PRESS:—Still no rain, but frost by night and May sun by day. The afternoon of the 15th clouds gathered in the northeast and the air was soft; proprietors and clerks stepped out to look at the few great raindrops from the reluctant sky, made dark by a wide scooping cloud, trailing from the immense burning tules. Soon a rainbow spanned the north and east, and hopes blew away with the frosty wind as the stars came out in the steely blue. The new moon of the 23d is now the last straw of the month to catch at. Pastures are frost-burnt, but grain is slowly coming up. Many have the ground ready, but not sown; others plowed a little and quit. Grain on land well pulverized and smooth looks well. Some are rolling the grain to make it hold out till rain.—MRS. W. D. A., *Stockton, Jan. 17th.*

Shasta.

A PRIVATE EXPERIMENT STATION.—Cottonwood *Index*, Jan. 11: A. B. Humphrey, who lately purchased 850 acres of the Shanahan land, has named his place Oak Lawn Rancho, and ordered 87 varieties of fruits and vines to set in his experimental orchard, as follows: 16 varieties of apples, 10 of pears, 7 of cherries, 15 of plums and prunes, 12 of peaches, 5 of apricots, 15 of grapes, and a few nectarines, quinces, almonds, figs, walnuts, chestnuts, oranges and persimmons. Mr. H. has had great experience in tree and vine culture, and realizes that where one variety of any particular fruit may flourish and bear abundantly, other varieties of the same may utterly fail, from causes not yet fully understood even by our scientific horticulturists; hence his first step will be to set out an orchard for experimental and ornamental purposes, near where he will build his residence.

Santa Barbara.

PLANTING WHOLESALE.—S. Maria *Times:* A tree-planting boom has struck this section. In addition to 500 acres to be planted by Mr. Dargie, Goodwin & Co. propose to plant 30,000 trees on land owned by them seven miles south of town, Geo. Lewis 50,000 on the Jas. Cox place, two or three miles northwest of town, and S. H. Laubach 15,000 on his ranch about three miles south of town.—[The kind of tree is not mentioned.—EDS. PRESS.]

Santa Cruz.

FERTILE FIELD.—*Sentinel*, Jan. 15: John Turner, whose ranch is about three miles from town on the Vine Hill road, has done some remarkable farming the past year. From a field sown Jan. 1, 1886, a heavy crop of hay was harvested May 28 to 30. The land was then twice plowed, and on June 10 planted to corn, and, without a drop of rain, a good crop was harvested Nov. 1. The ground was then plowed once and sown to wheat, and at present has a fine stand three inches high. This is not a rare but a remarkable fact.

Solano.

ROSE OF PERU RAISINS.—The Vacaville *Reporter* a few days since tasted raisins made from Rose of Peru grapes, which were fully as sweet as those of the Muscat variety.

Sonoma.

SHEEP-SLAYERS.—Santa Rosa *Democrat*, Jan. 8: Farmers about Windsor are experiencing much trouble from some sheep-killing animal, presumably wildcats or coyotes. One reports 25 of his finest lambs killed in one week, while another has lost 10 in one night. As L. Kennedy was returning through his field from a neighbor's, he discovered three of his sheep dead, one of the number being partially devoured. The rest of the flock were huddled together in a distant corner of the field, but no other animal was in sight. An hour before, the sheep were all right. Sheep-raisers between here and Petaluma have lost between 200 and 300 sheep within the past week. Julius Ort, Mrs. Roberts and J. T. Cook have lost nearly half that number themselves. The parties referred to feel positive that their sheep have been killed by dogs.

CLOSED OUT BY DEATH.—Pet. *Courier*, Jan. 12: The Petaluma Stock-Breeders' Association was organized a few years since, and purchased the celebrated Norman stallion, Duke de Chartres. Later they bought Crown Prince, paying for the two horses, we believe, $7500. The association comprised none but farmers and stock-breeders, and the horses mentioned were bought especially for improvement of stock of its members. The horses have more than paid for their cost and keeping, and their fine progeny can be found all along this upper coast. "Doc" Upton, their keeper, died several months since, then followed the Duke de Chartres, and still later the Crown Prince. This, we presume, closes the business of the Petaluma Stock-Breeders' Association.

MODEL HORSE FARM.—Yesterday we visited the stables of J. R. Rose, a few miles below Donahue. In one stable, used exclusively for stallions, was McPherson, a full brother to Nellie R., four years old. He is a beauty, both in color and form, and is said to be the coming horse of this section. Arranged alongside were the stalls of several two and three-year-old Duke colts, all truly noble-looking fellows. Near this stable, on an eminence, is the grave of the late Crown Prince. It took two men a good half day to excavate a grave big enough for the old fellow. On another hill is a stable used exclusively for young colts. About 80 youngsters spend their nights here, each one having a complete box stall to himself. They are so well trained that after spending the day out on pasture, each one knows his own stall and takes possession the moment the doors are thrown open. Having learned by experience that it costs no more to raise a good animal than a poor one, Mr. Rose has permitted no poor blood to come on his ranch. The result is that his horses, cattle and sheep are all exceptionally fine.

OLIVES.—*Democrat*, Jan. 15: We have proof satisfactory that the cultivation of olives in this county can be carried on with success and profit. We were shown a sample of pickled olives from the Grosse ranch, Monday, which for flavor are inferior to none. The size of the fruit, owing to the youth of the trees, is somewhat smaller than the imported goods. The olives put up by Captain Grosse are fine, as stated, but for size and beauty they cannot compare with those put up by Mr. McClelland, of the Vine Hill View ranch, near Forestville. The difference in the size of the fruit is easily accounted for, however, as the latter are from trees much older, planted over nine years ago by an Italian named David Giovaninni, of S. F., who bought the land for charcoal purposes, and after the wood had been cleared from it set out olive trees and vines. The olives put up from these trees are what are termed "queen," and are as large and perfect as those from the famous groves bordering the Mediterranean. During the past year the following named gentlemen have set out young olive orchards: William Hill, Vine Hill View; Captain Watson, Glen Ellen; I. De Turk, near Glen Ellen; Korbell Brothers' land, near Guerneville; A. Peterson, on Mark West divide; William Klopfenburg, Occidental, Water-Works Company's property, near Santa Rosa. Captain Grosse now has 4000 trees of the Mission variety growing on his ranch, and will set out this coming season 500 of the Richelieu variety.

Stanislaus.

TEXAS COTTON.—Modesto *News*, Jan. 14: Mr. V. E. Bangs is in receipt of a package of cotton seed from Texas, with which he intends to experiment on his ranch. There are three varieties, two of which are the Sea Island and Storm Proof. It is the intention of Mr. Bangs to cultivate it, both with and without irrigation, and we shall await with interest the result of the proposed experiments.

Yolo.

RAISIN SHIPMENTS. — *Democrat*, Jan. 13: On Friday Jackson Bros. shipped four carloads of raisins, or nearly 40 tons in all, to Coleman & Co., S. F. Mrs. Briggs would have shipped five carloads at the same time had the cars been obtainable. From time to time during the season there have been a great number of such shipments, and still there is a demand for more. Yolo raisins have established an enviable reputation for size and quality. The tule fire was again raging Friday and Saturday evenings. It appears to smolder for several weeks at a time, and only awaits a north wind to be fanned into a blaze and go racing over the tules, destroying all within its reach. A few weeks ago it communicated to the brush and fences along Cache creek, and before it was stopped had burned over a mile of fence, besides much valuable pasturage. Hunters and others should exercise greater care in future.

NEVADA.

ALARMING REPORT.—Genoa *Courier*, Jan. 14: Several cases of pleuro-pneumonia have recently been discovered among cattle in the vicinity of Antelope valley.

Sonoma County Notes.

EDITORS PRESS:—Although many sections of California have been severely punished, because there has been no rain during the past 60 days, "Old Sonoma" is not in that condition. Grain and grass are doing finely. For the past fortnight there have been heavy, wet fogs, which have done much good to the cereals. A larger acreage has been sown to small grains than for many years before, and the outlook for a good crop was never better at this season of the year.

At various points in the county many fruit trees are being planted, while everywhere fine varieties of grapevines are being set out.

Already the spring clip is finding its way into market. The wool is of fine quality, but the price paid is disastrously low for the producer.

Report, apparently well authenticated, says that the S. F. & North Pacific R. R., familiarly known as the Donahue road, is soon to be extended to Ukiah, the county seat of Mendocino. The new road, when built, will reach a fertile portion of the State and give it speedy communication with San Francisco.

There is little doubt of the construction of the Santa Rosa & Benicia railroad. Work will be commenced within a few days, and pushed along with more than ordinary diligence. Sonoma is honestly winning a good deal of honor for her citrus productions. It ought to he known to every one, for it is true, that the county is well adapted to and actually produces figs, almonds, lemons, oranges, persimmons, olives, and all the finest varieties of raisin and wine grapes. Now if this is not a good record, we should like some one to tell us what constitutes such.

Pruning in the vineyards in the vicinity of Santa Rosa has just fairly begun. There are several thousand acres to prune in this part of the county, and it affords a big job for the lucky persons who get employment. But there are at least two men ready for each job of work.

The new year opens encouragingly for all classes of industrious people here. Judging from present indications, there will be a big fruit crop, a fair yield of grain, grapes without number, hops in abundance, and new buildings and railroad improvements to correspond. What more ought to be asked?

District schools will soon open for the spring term. All of the country schools run eight, and most of them 10 months. This is an inducement for men with families to find homes in Sonoma county.

The State Grange, Patrons of Husbandry, meets in Santa Rosa next October. The members of that body will be well entertained. The Grand Lodge, Knights of Pythias, also meets in Santa Rosa next April. Already arrangements are making for the pleasure and comfort of the members. Thus you see Santa Rosa, in Sonoma county, is booming.

Santa Rosa, Jan. 17. OCCASIONAL.

PORTRAIT OF GLADSTONE.—Jos. A. Hoffman, the book-seller and stationer of this city, sends us a fine life-size portrait of Hon. W. E. Gladstone, printed in oil colors, with calendar for 1887 appended.



Meadow Lark.

[Written for the RURAL PRESS by LILLIAN H. SHUEY.]

Bird of my soul, why dost thou blithely sing?
There are no promises of anything
Thy voice exalts and praises in the spring.
No kingly south wind speeding up the sky;
No swift assembling of his court on high;
No clouds like angels' wings in hallowed train,
Down speeding with their benefactions to the sun-dried plain.

Why dost thou sing? You mind me of old springs,
Rich with deep rainfalls and all growing things
That promise beauteous life and fruitful offerings.
There is no promise now; the dusty hills,
The drear lone pathways and the voiceless rills
Inspire no song. The long sad days complain
To hear once more the blessed music of the measured rain.

I cannot join thy song; and yet, bright bird,
The day is better for thy singing heard,
As if thou wert a prophet of good word.
And if thou yet hast hope of rain-spent hours,
Of deep rank grasses and bejeweled flowers,
Sing as thou wilt; my heart's in thy refrain.
Some time, please God, thou'lt sing triumphant in the low soft rain.

The Senator's Daughter.

CHAPTER III.

[Written for the RURAL PRESS by SARAH CAMPBELL SANFORD.]

The next thing I realized was father chafing my hands and calling my name. When I opened my eyes a wet, sorry looking group stood around me. Quite a number got a wetting, but I was the only one whose life was in danger. I was sinking for the third time when father's strong hand grasped my loosened hair and dragged me to shore. A delirium of fever followed; all my friends were very kind, but my blessed father was devotion itself. When consciousness returned I feared the old temptation might come back to him while I lay white and weak at home; but Alvar took every pains to guard him, and father himself proved to us he was stronger than we thought. I was very willing to lie there, day after day, accepting their petting as gratefully as a little child.

The catastrophe brought the merry-making to an end. A few days afterward the Stanhopes accompanied Earl to New York, whence he sailed to the Old World. After his departure, the family took a summer jaunt; but dear Jessie traveled all the way back to stay with me. How surprised I was, that golden summer morning, when she walked into my sick-room! How dainty and sweet she was in her gray suit—not a wrinkle or crease, though she came directly to me from the station. She sang and danced through the house like a sunbeam. There could be no low spirits where the fairy dwelt. The mornings were given up to reading and music—that is, I lounged in an easy-chair, my hands employed part of the time with bright, soft wools, while Jessie entertained me. In the afternoon we drove about town and the suburbs in her pony phaeton.

What a dreamy existence I led! Every want was anticipated. I began to wish to float on in a like manner forever. But I was recalled to this every-day world by a letter from Alvar, who, after I was able to be about, and during Jessie's visit, had taken an outing. Poor lad! he needed a rest, as the care and trouble with his approaching examinations were almost too much for him. It seemed that my father's family for generations had produced lawyers. The family were plain, unpretending farmer folk, but deeply ingrained in their tradition was the idea that every branch must turn out at least one lawyer—a sort of figure-head for the humdrum members who were very willing to plod along on their farms themselves, to reverence and refer to; the one aristocratic element in an old, honest race. And my father was no exception to the rule. When this letter, which I give entire, came, it dealt him a hard blow:

Aug. —, 18—.

DEAR MADGE: I know you will think me a coward, and so I am. [It is something to own it, is it not?] But I find it much easier to write unpleasant things than to speak them and witness the wounds they inflict.

The time is fast approaching when I must choose my calling in life. I know as well as you the profession father wishes me to enter, but, dear sister, I am writing this letter to ask you to beg off for me. You must know how much influence you have over him. Somehow I don't seem to get very near him since mother died. You know I was always *her* boy, and I am unable to break down something, I don't know what, between father and me. I know I am not bright and sparkling like you; I have mother's timid, shrinking nature; and I could no more succeed in the legal profession than I could fly. I don't see the merit for speech-making, and as for taking advantage of other people's quarrels to make money, I won't do it. I admit I haven't ambition and energy, but I do like to work in wood, and I want to learn to build houses. You see I am drawing it as mildly as possible; but to come right down to plain English, I wish to be a carpenter.

I suppose I might draw a bright picture and call it architecture, and talk about rising in my profession—which I hope I may, some time; but first I wish to learn all about the manual labor. I want to do the actual work with my own hands before attempting to direct others. After I master the actual work, perhaps I am artist enough to become a good architect—I sincerely hope so, for your own and father's sake. For myself I care little; to live a good, hard-working life, and feel that I have done something, no matter how little, to build up and make useful my little corner of the world, is enough for me, even though my name never appears in the paper but once, and then in the death column.

Now, dear Madge, perhaps your pride will be hurt as well as father's; but bear in mind all the temptations in a lawyer's life. Mother advised me to seek some other field of labor. I have never told you of the many, many times she has clasped me in her arms, and while the scalding tears rained down my face as well as hers, implored me always to remember her agony caused by the hydra-headed monster that is devouring the flower of the land. Ay, curse it! say I; it will devour the nation itself. You, Madge, are making a heroic effort; you are a brave girl to strive as you are doing against fate itself; but it is like trying to dip the ocean dry with a spoon. A republican form of government cannot stand long with this traffic rearing its head in every place as it is doing now. Monarchies can hold out much longer—*their* rulers are born to their position; but here, where our chief men are raised from the ranks, nothing will avail to hold the government together but the good, homely virtues of the people. As long as the national government receives a revenue from this awful business, I want to know what one can expect from the individual. I haven't a word to say against the saloon-keeper; he is making a living in an easy way, and our government has set him the example. "The grandest government the sun ever shone upon," I believe is the language our spread-eagle orators use in their Fourth-of-July orations. Well, all I have to say is, this great American people would do well to take a few lessons from the Chinese. The Chinese government endeavors to be paternal. It has refused to lay a tax on opium, because that would countenance the sale of it, though it might derive a large income from such a tax. I tell you, Madge, when the law-makers so far forget the welfare of the common people that they legislate to put money in the public purse, regardless of the degradation of the citizen, a government of the people and for the people is tottering and will lie in ruins very soon. I would prefer to stand from under.

Bear in mind what our father would have been had he escaped this evil. Think! we might have our darling mother with us to-day, for she was as surely murdered as though some assassin had struck her down. Because these men were licensed, every one of those places where father spent his nights while mother waited at home, stabbed to the heart, was most "respectable" and fashionable. Every keeper of those gilded gates leading to the infernal regions had in his possession a license from the general and municipal governments for which he paid round sums of money, making his business not only lawful but respectable.

Should the government say "No! the welfare and happiness and prosperity of this people is more to us than all the gold in our mines; we will license no business that degrades our citizens," not one in a hundred of these saloon-keepers would remain in the business. They are law-abiding citizens; they are patriotic, and intend to do nothing unlawful.

The legal profession is closely allied to governmental affairs, and I dare not handle pitch for fear of being defiled.

Forgive me for thus writing to you. Make my peace with father, as I want to be at home. Good-by.

ALVAR.

I received this letter just at dusk and did not open it until after I had gone to my room for the night. Ah, how I sobbed and shook at the mention of mother! At the opening of the letter I steeled my heart against the boy, for I sympathized with father, and felt the sting of wounded pride, and the hot blood mounted to my face in anger; but when he alluded to our poor mother the floodgates were opened and Jessie was alarmed at the passion of tears. She soothed me as well as she could, and after the storm had subsided I handed her the letter to read, while I lay on the bed trying to reconcile myself to this state of affairs.

Jessie at last laid her face on the pillow beside me, and mingled her tears with mine. After a little she said:

"Who would ever think pale, quiet Alvar could write such a letter? It stirs my blood and makes me want to do something in this great fight, too."

"But, Jessie, just think of his being a mechanic—our delicate, refined boy! Oh dear, what *will* father say?"

"Is that what ails you? What does it matter what he *does?* It is what he *is*. You should be proud of such a brother." And Jessie's eyes glowed in her enthusiasm.

"You wouldn't like your brother to be a mechanic—a dirty, greasy mechanic. Faugh! how they smell!" Down came the tears again.

"Aren't you ashamed of yourself, Madge Wilton? Wouldn't you rather smell grease and dust than beer and whisky? I tell you I want *my* brother to be just what nature intended him to be, if it is a blacksmith."

"Oh, that is very well for you to say," said I, as I sat up on the bed. "You know such a disgrace will never come to you. You belong to a privileged class. Why, your father never had to earn a dollar in his life. He and his father before him inherited their property, and so will his sons. What do you know about such things? You have never known a wish ungratified." And I turned away from her, angry with my best friend.

She knelt by my side, grasped both my hands in hers, and said: "You don't mean to taunt me with my people's inactivity. You think we are to be envied; you perhaps imagine we pride ourselves on this manner of living; but I have heard my father say, many times, he would prefer a larger field. He once said, to own mills of some kind, where he could give employment to large numbers of men, and at the same time add to the usefulness of the world, would please him better than any other business. But his property is in real estate, where it was invested before it came to him, and he has no knowledge nor talent for anything else; so he contents himself with his life as it seemed mapped out for him. Oh dear, Madge! think—the Christ who left us such an example was a carpenter. Think of Peter the Great, while Emperor of all the Russias, serving his time at the carpenter's bench! How can you sneer at any honest work? I tell you no trade, however lowly, can ever degrade any one; only our inner life, our real selves, can do that. If we maintain uprightness of character, nothing can lower us. I have heard it said that dishonesty is rewarded, that a premium is paid to vice, and that virtue and honor have no reward in these degenerate days. Now I cannot believe these times are worse than the past. No, I would rather think them better; and just my little observation has taught me better than to believe such sophistry, as father would say, though I hardly know what the word means."

Her bewitching smile was so infectious that I found myself smiling back, and thus our first unpleasantness was swept aside, and I felt better prepared to break the news to father. In the morning, however, he seemed so hurried that I put it off until noon; and when noon came I thought it would be better to wait for the quiet evening.

Jessie was unusually attentive all day. About 4 o'clock, as we were driving on a country road, we met father in his buggy. "Come, girls," he said, "I have just passed a fine piece of woods, back here, and I have time to show it to you."

He turned around and we soon found ourselves in a sweet-scented, aromatic grove. Father leaned against one of the old monarchs of the forest and said:

"I remember wondering what Emerson meant, but I can now understand him when he says: 'In the woods we return to reason and faith. There I feel that nothing can befall me in life, no disgrace, no calamity (leaving me my eyes), which Nature cannot repair. Standing on the bare ground, my head bathed by the blithe air and uplifted into infinite space, I am nothing. I see all the currents of the Universal Being circulate through me.... How does Nature deify us with a few cheap elements? Give me health and a day, and I will make the pomp of emperors ridiculous.'"

My heart was heavy with wounded pride, but glad little thrills shot through my being at father's words and mood. We brought home with us modest wild flowers and the scarlet wintergreen berries.

It required all the courage I could summon to turn the knob and enter father's study. I did not mean to show him the letter, and how to plead Alvar's cause with my pride and sympathy all with father was more than I could plan. My tongue cleaved to the roof of my mouth, but I managed to say:

"I had a letter from Alvar last evening."

"Yes?" said father. "When is he coming home?" without taking his eyes off his paper.

"Very soon; but he wished me to communicate some news to you which I fear will prove to be unpleasant."

"What's up? Has he ruined a horse and wants some money to pay for him; or has he committed some other folly and extravagance? It's about time he began to sow a few wild oats, or he won't be through in time to settle down a staid, professional man."

The good-natured twinkle in father's gray eyes proved to me he had no notion of what was coming. A great lump came up in my throat, but I swallowed hard and said:

"Nothing of the sort; it concerns his profession. He objects to a legal life."

"Oh, that's it, is it?" He spread his paper across his knee and continued: "Now I'll wager something I can guess the first time trying what the little prig wants. He imagines he is called to the ministry. Isn't it so?" And he laughed a good-natured, congratulatory laugh.

Oh, how I dreaded to undeceive him! I sat quiet so long that he resumed his reading after remarking: "It is very natural for 'Preps,'" as he called the students in the preparatory department, "to put on spectacles and converse learnedly on theology; but by the time their college course is completed they generally change their minds."

At last I ventured to say: "But you have made a mistake, father. He says he has no talent for speech-making, and wishes to step out of the professional path altogether."

Father laughed as he repeated my words. "No talent for speech-making? That reminds me of one of Alvar's speeches when he was a little fellow. He took a fancy to ride over the country with me while making a political canvass. One night our drive home was a cold one, and Alvar was cross; he kept very quiet for several miles, and when I rallied him, he roused up and said: 'That may be a very fine speech of yours, father, but I am awfully tired of it.'"

Father's laugh elicited no response. It was serious business to me, and I needed all the fortitude possible to say the next word; but finally I blurted it right out:

"O father! he wants to be a carpenter." And I dropped my head on my hands.

"Why didn't you say a chimney-sweep?"

But the tone was bitter; the merry laugh had died away, and a hard, metallic tone was in its place—a tone I had never heard in my father's voice before.

"Give me his letter; let me see what the 'cad' means."

"I haven't it with me; I would rather not, please," I answered.

"Go get it, then."

An ominous flash of his eye cut short all other words. I brought the letter as meekly as a little child, and stood trembling as he read it.

[TO BE CONTINUED.]

"Man and Wife."

[Written for the RURAL PRESS by MACK.]

The history of the sorrows and struggles of that helpmeet said to have been given to man in the Garden of Eden has not yet been fully written. All ancient history is masculine—a mere record of the thoughts and acts of men. Woman filled a place so low and degraded as to be thought unworthy of mention in the chronicles of those olden times. It is only at wide intervals we find a bright spot in which her deeds and services receive honorable mention; as, for instance, the story of Penelope, Lucretia and Aspasia. The Spartan mothers and the mother of the Gracchi, who repressed every sign of grief when their children were slain in battle, and the courage of Porcia or Arria, are only noticed because they broke away from the thrall of their sex and displayed the heroic daring and fortitude of brave, strong, warlike men. The Bible is a masculine book. Not one of the 60 books that compose it was written by a woman. In the Old Testament times men bought and sold their wives as they did their cattle. Jacob purchased Leah and Rachel, and, according to Homer, the custom was common among the Greeks. Religion had but little use for her, only as a scapegoat, to bear the sins of the race. It was the woman Eve who ate the forbidden fruit. It was the idle curiosity of the woman Pandora who opened the box and let out all the woes and diseases of humanity. Many of the gravest philosophers of antiquity seriously doubted whether she had an immortal soul. It is still a cardinal doctrine of Mohammedanism.

One would think that the ideal of glory the church wove into an aureole around the head of the Virgin Mary for so many centuries would have tended largely to the elevation of woman. But all through the Middle Ages, the chief excellence it wrought out for her was that of a meek, demure devotee of religion, who believed in wearing the veil of solitude as the only means of beatification. Under the old common law she had but few rights above that of a slave. The widow was called the relict of the dead husband, and was provided for as part of the inventoried estate. The law of descent favored the male issue. It is the chief glory of our era that it has slowly but surely made vast progress in the advancement of woman to her proper place in the social and political world.

But after all that has been said and done, some traces of the exclusively masculine element may still be found in the usual marriage formula. The man is asked to love, honor and cherish his wife; the woman is asked to obey her husband. Obedience is her prime duty, and love and honor are expected as secondary qualities. Of course every bride smiles inwardly at this archaic language and interprets it in a Pickwickian sense, but the formal acceptance of this offensive clause in the marriage service places her in a wrong position, and it should be expunged. Still more objectionable is this clause of the marriage service, "Who giveth this woman to be married to this man?" What, is she a chattel to be deeded away, a thing to be handed over from one to another or delivered by a sort of bill of sale, a mere helpless dependent transferred from one protector to another?

What else can be made of it, and what is this but a relic of what in the ancient Roman law was known as the perpetual tutelage of woman? The phrase, "I pronounce you man and wife," is equally offensive. It is all right as to the woman, because it does not pronounce her merely a "woman," but a wife. But what is there in merely calling a man a man that transforms him into a husband? Suppose the officiating clergyman should say, "I pronounce you man and woman, male and female, Mr. and Mrs., or lord and lady," strictly speaking, it is not apparent that he has placed them under any new contract. To make the contract reciprocal he should have said, "I pronounce you husband and wife." This marriage formula came in vogue when woman was not regarded as an equal in the family partnership, but as a meek, silent, passive subordinate.

There is still a grave objection in a minister or magistrate pronouncing two persons man and wife or even husband and wife. The law vests no such power in the officiating person, but only to draw out from the parties an expression of mutual consent which is the essence of the contract, and having done so, to authoritatively attest or witness it, either in the name of the church or the State, as may seem best. The act is the act of the parties, and the parson or magistrate has nothing to do in making the contract, but only to attest that one has been made. The usual marriage services substitute the attestation for the contract. For the sake of correctness and perspicuity, this distinction should be recognized and remedied, though it is not so objectionable as the clauses that relegate woman to a secondary place in the family.

YOUNG FOLKS' COLUMN.

Sweet Cream.

[Written for the RURAL PRESS by M. B. D.]

Trees and flowers grew around Gertie's new home. She liked it much better than the old one, although as yet it was not so nice inside. Trunks full of things were still in corners unpacked, and waiting for her mother to find time to arrange them.

Before her father had brought them to Petaluma, they had lived on the wide, grassy plains of Kansas. How many days they had spent traveling, Gertie could not tell, but it had taken a long time to come, and she had grown tired, wishing many a time that they would stop on the way. The world seemed so big that she was afraid they would never find the place they were looking for. When at last her father took them to a little house in a garden, and said that they would live there, she was delighted. About this neat little cottage there were so many new and pretty things that she never seemed able to find them all out. Every day brought some new wonder that filled her mind for hours thinking about it. Though Gertie was a little girl, her mother always called her a good, helpful child, and often praised her, which made her very happy, and anxious always to deserve it. She did all she could every morning about the house, and was ever ready to take care of the baby when her mother was busy.

In the afternoon she often took the little one out under the trees to play. While standing beneath the branches she could look up among the leaves, where the fruit was growing sweet and ripe. Little wild birds flew about and pecked the cherries that were turning red in the sunshine. Gertie wished that she could get some of them, but they were so far up, and she could not climb the trees like a boy. There was something that she liked even better than ripe cherries, and that was sweet cream.

Just over the hedge that surrounded the garden the cows stood in the meadow lazily dreaming and chewing their cuds. In the evening sometimes she followed her father to the barnyard, and watched him milk them. His strong hands made the white streams tinkle against the tin milkpail at first, and then as the milk grew deep, a beautiful foam bubbled up and covered all the top. When the pails were full he took them to the kitchen, and, after filling the pitcher for dinner, strained the milk into shining pans which her mother set away in the pantry. Every morning she skimmed the sweet thick cream off and put it into a jar. Gertie loved to see her do this. She would stand leaning against the table, watching with her bright eyes every motion of her mother's hands. As the last pan was skimmed, she would sometimes ask, "Mamma, please give me some," and her mother would dip the little islands of cream, that floated about on the pearl white seas, into a saucer, and give it to her, and the skimmer beside. Gertie would run off with them gleefully, and sit down on the kitchen steps to enjoy her feast, where her kitten usually came purring to her, and seemed to ask, by the look in his yellow eyes, for a share. Puss would lick the cream from her finger with his pink tongue, that felt so rough and warm; then he would hump his back and purr as loud as he could to show how glad he was.

Gertie's mother set the cream jar away in the pantry to wait until it was full, when she would churn the cream and mold it into rolls of hard golden butter, which Gertie liked very well, and especially on hot cakes with honey; but she liked the cream so much better that she wondered why her mother should ever make butter at all. Indeed, it seemed foolish to stir that soft snowy cream into butter—all salted, too. Why did not everybody like cream best?

On seeing the pans in a row along the shelf, she had dipped her fingers into them to get some of the cream. One little taste had followed another, until the pans were covered with white dots where her fingers had been, and her mother had decided to put them up out of her reach. Now when she was in the pantry, she could only see the rims of the pans as they projected beyond the edge of the shelf.

One day a lady, Mrs. Morse, came to visit her mother, and Gertie was asked to take the baby out for a little while. "Come, take the babe and play with her under the trees until I call you," her mother had said; then, turning to her visitor, she added: "You can have no idea what a help my little girl is to me. She is a perfect little woman in many of her ways."

By this time Gertie had tied her hat ribbons, arranged the baby's shawl and was ready; so she led her toddling sister by the hand out into the garden. How very proud she felt because her mother had praised her before company, and she wondered what nice things the visitor would say and think about her.

"Now you stay here, baby," she said, spreading a shawl on the grass, "and keep quite still while I get some flowers for you. See, Gertie will bring nice rosebuds if you are good."

She culled the glowing buds and some cowslips, which would not harm baby if she should put them in her mouth, and played with her until she fell asleep. After awhile she grew tired of holding the baby's head in her lap, so she rolled up one corner of the shawl for a pillow, and, making the small sleeper comfortable, tried to amuse herself.

The shadows grew long and narrow, and the birds became quiet. Even the butterflies lingered upon the flowers and seemed waiting for night. Gertie wished that dinner-time would come, for she was hungry. "I'll get a cookie," she thought. "It will only take a minute," and with a glance at her sister she hurried to the house. Her mother was still busily talking with Mrs. Morse, and when Gertie slipped in she took no notice. "I guess I can get it myself," thought she, as she went to the kitchen.

The pantry had been without shelves and her father had arranged fruitboxes to take their place for the present. Gertie looked everywhere she could think of for the cookies, but could not find them. At length she decided to take bread and honey. Picking out the smallest loaf, she climbed on a chair to reach the honey jar. On the shelf with it were some preserves, some cans and spiceboxes, and on the shelf above were the pans of milk.

"Oh! how I would like just one little taste of cream," sighed Gertie, as she stood on her tiptoes, trying to touch a pan with the ends of her fingers. "I'll dip the bread in," she continued.

Climbing upon the lower boxes, and reaching her bread over the edge of a pan which was still above her head, she soon had it dripping with cream, and began to eat it with delight.

After she had finished she said to herself: "That is the sweetest cream I ever tasted. I'll just take one more dip."

This time the bread came out wet only with milk. Straining her little arms and climbing still higher, she was about to reach the cream again, when crash—and the pan of milk was dashed over her head and face, the boxes on which she stood, the preserves, honey, cans, and all tumbled with her to the floor, making a loud noise that brought her mother and Mrs. Morse running into the kitchen with white, scared faces. The milk almost smothered Gertie at first, and she was frightened, as well as hurt a little by the fall.

"Is the child killed!" exclaimed her mother, picking her out of the mass of broken glass, milk and preserves that were all over the boxes and the pantry floor. Seeing that she was not injured, she continued: "You naughty girl! how came you here?" And though she said nothing more, her hands trembled and her face was pale for a long time. She put Gertie into a bath, which was the worst one she ever had. A box of coarse, black axle-grease had been smashed into her thick hair, and her mother was obliged to wash her head until she could hardly hold it up before the fair locks began to look glossy again.

"Please cut off all my nice hair, mamma," Gertie pleaded, while the soap trickled down her face and neck. Mrs. Morse held the baby until her mother was almost done; then her father came home. He was told what had happened, and he looked so surprised that Gertie fairly cried from shame; besides, she expected to be severely punished for her naughtiness. No one said anything about it until bedtime; then her father talked to her for a little while, telling her how foolish and wicked it was to do what she knew was wrong. This had been a severe lesson to her, and he thought she had been sufficiently punished. Little Gertie profited by it, too, and now the cream is on the lower pantry shelves.



IN HER SWING.

In Her Swing.

How life-like is this picture of a little girl in her swing. It will no doubt please our young readers. They may say that their mammas do not let them put on their best clothes to swing in, and we rather think this little girl would feel more comfortable if she had her play dress on. The fact is that she is swinging in a photograph gallery and the artist put her in the swing to take her picture. The reason the picture is so life-like is because the engraving is made directly from the photograph by our process of "photo-engraving"—that is, *light* engraving, or allowing the sunshine to do the work usually done by the engraver with his tools. When this is done the picture must look just exactly like the original. This little girl's name is Belle Ogier, and she lives in Eureka, Humboldt county, California.

GOOD HEALTH.

How to Resist Cold Weather.

A physician gives the following sensible directions for avoiding colds. Now that the winter is upon us, they will be worth bearing in mind: "To be able to stand cold, one must eat such kinds of food as will give plenty of heat, and must also accustom the system as much as possible to cold. Heat-forming foods are rice, sago, tapioca, potatoes, the grains of wheat, oats, barley, and especially maize. I do not recommend fat, because it is difficult of digestion, but in moderation it is useful. Oatmeal porridge eaten with butter and sugar forms a good cold-resisting breakfast. Then rice, with peas, barley and a little oil or fat, makes a good dinner; while for tea some brown bread, with butter and preserves, will not do. To accustom the body to cold, one must not wrap up too much, but make the body adapt itself as much as possible to the cold. The human system possesses in the brain a center for the government of the heat of the body, by which it is always kept at one uniform hight. If we heat our bodies by hot drinks, heaps of clothes, hot rooms, etc., we give this center little to do. But if we expose the body to cold air, take our food nearly cold, and do not clothe too heavily, we keep this in good condition, and it will keep the body warm if we give it the necessary food, and is ready for sudden exposures. The body can be used to cold by means of air baths, or exposing the nude body to the air. This can be done by taking exercise at the same time, and so no cold will be felt. In connection with heaps of clothes, I may say that I have cured two or three weak chests by making the persons throw aside the chest protectors (which are a snare) and sponge the chest daily. When cold do not rush to the fire, but take a sharp run, stamp the feet, and throw the arms across the chest, making the fingers hit the back, like cabmen do. Avoid hot fluids, of tea and soups, which give a fleeting feeling of warmth. They are very good if you want to restore a numb person. But if you are not much in the open air, take your food nearly cold, and the system will then supply the required heat, and you will find you can stand the cold much better than if you took hot drinks."—*Ex.*

CONSUMPTION FROM COWS' MILK.—Dr. Hopkins, of this city, a microscopic specialist, by appointment of the Board of Health, claims to have found in the milk of consumptive cows the germs of the disease. He says that the bacillus is long and tube like, and made up of infinitesimal spores, only visible under the most powerful microscope. By his experiments the doctor believes he has shown that, in the case of a cow suffering from consumption, the germs of the disease are to be found in the milk. He believes that the injury done by these germs when taken into the human body depends on the health and delicacy of the organs of the person who drinks the milk. This discovery having been reported at the late meeting of the San Francisco Microscopical Society, that body appointed a committee consisting of Drs. J. H. Stallard, H. Ferrar and the president, Dr. S. M. Mouser, to visit Dr. Hopkins and examine the slides which he has prepared exhibiting these bacilli. The discovery opens a new and important field for investigation, and presents the question whether consumption may not be contracted from the use in diet of milk from cows suffering from pulmonary complaints. The committee will report the result of their visit and inspection at the next meeting of the society.

CURE FOR A FELON.—An exchange gives the following: That woolen smoke is a cure for a felon, is certainly one of the medical discoveries of the age. Could we give the name of the correspondent who sends us the following, it would be at once recognized as of authority sufficient to guarantee the truthfulness of any assertion to which it might be appended: "If you ever endured the agony of a felon, you will appreciate the fact that it can be cured by woolen smoke. Place the woolen rags under an inverted flower-pot, and put coals upon them, or set them on fire in some other way; then hold the felon over the smoke and it will extract all the pain. This has been done by a friend of mine within a week. I assure you that in my circle we consider it as great a discovery as that ether will temporarily deaden pain."

DOMESTIC ECONOMY.

BEEF SCALLOP.—Two cups of cold underdone roast beef, one cup of raw potatoes, cut into dice, two beaten eggs, mustard, pepper, salt and a teaspoonful of finely minced onion, one cupful of gravy or stock. Peel and cut the potatoes, lay them in cold water for half an hour, drain, cover them with boiling salted water and stew gently ten minutes; drain off the water, add the gravy and the beef chopped fine; cook slowly for ten minutes, turn into a bowl, beat in the eggs, the onion, salt, pepper and mustard, put into a greased bakedish, strew crumbs on top, bake covered half an hour, then brown.

FLANNEL CAKES.—One quart of milk, one cup of cornmeal and nearly three of flour, half cake of yeast, stirred in a half-cup of warm water, one large cup of boiling water, one teaspoonful of salt, one teaspoonful of molasses, bit of soda the size of a pea in the milk. Scald the meal with the boiling water, stir in the milk and strain through a colander, add flour and yeast and let it rise until morning; beat in salt and molasses, and when the batter is smooth and light, bake on a griddle. They are very nice.

SCALLOPED POTATOES.—Cut up cold boiled potatoes until you have about a quart. Put in a pan a generous cup of milk, one teaspoonful of flour and one tablespoonful of butter. Set on the stove and let it thicken; then put a layer of potatoes in a pudding dish, season with salt and pepper, and pour on a little of the gravy. Continue until all is used. Cover the top with rolled cracker crumbs and bits of butter. Bake 20 minutes.

CRACKER PUDDING.—One egg, three tablespoonfuls of sugar, one pint of milk, two or three milk crackers rolled, nutmeg and a pinch of salt. Bake about three-quarters of an hour. Run the handle of a spoon down the center of the pudding; if it does not look milky it is done.

FRIED PARSNIPS.—Scrape and leave in cold water for an hour, then cook half an hour in hot, salted water; wipe, slice lengthwise, dip in melted butter, then in flour seasoned with salt and pepper, and fry in boiling dripping. Drain free of fat and dish.

JOHNNYCAKE.—Two-thirds of a teaspoonful of soda, three tablespoonfuls of sugar, one teaspoonful of cream of tartar, one egg, one teacup of sweet milk, six tablespoonfuls of Indian meal, three tablespoonfuls of flour and a little salt.

COOKIES.—One cup of butter, two cups of sugar, three eggs, two teaspoonfuls each of baking powder and boiling water, and flour enough to knead as soft as can be rolled out.

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Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber please show the paper to others.

The Week.

We enter another storm area just in time to write a hopeful word. For several weeks the clouds have gathered and some rain fallen just as the RURAL went to press—just in time, as it were, for us to get in a good puff for the elements and the following day the skies have cleared, having done but little. We are becoming rather shy of giving the weather clerk a "real good notice," but we must acknowledge that the wind and rainfall of Tuesday night were the most business-like of the season, and that the upper half of the State has received something of a contribution to its moisture. Before saying anything more flattering of the present storm we shall wait to see the end of it.

To-day, Wednesday, George Hearst was formally chosen to the U. S. Senate, receiving every one of the 65 Democratic votes in the two Houses combined. Henry Vrooman received 52 Republican votes, Chancellor Hartson one, and two Republicans did not vote. In this city, on Wednesday, the new Railroad Commissioners organized and resolved to proceed to Watsonville to hear complaints of the people about matters which work hardship to them. The meeting of the Fruit Union opens well and promises good results. An outline of the early acts of the meeting appears in another column.

King Caucus.

The word caucus is of American origin. It is supposed to be a corruption of the word calkers. In the early history of Boston a number of persons engaged in the ship business used to meet together to talk over matters that concerned their interests. It was known as the Calkers' Club. People curious in tracing genealogies believe that was the cradle of King Caucus. If so he seems to have been a harmless brat, but has grown into an ugly monster.

The earliest use of the word in connection with our political system is found in an entry made by John Adams in his diary, dated Boston, 1763. He speaks of having attended a meeting of the Caucus Club. This was composed of leading citizens who met to smoke, drink flip and talk politics. Here they gradually came to talk over and agree upon the men best fitted for selectmen, overseers, and representatives. There was nothing authoritative in what they did, merely a few leading citizens talking over the situation before election, and suggesting a good ticket. In the change of the Government after the Revolution there was a great increase in elective offices, and politics gradually became a trade. The idea prevailing that it was very improper and undignified for a man to nominate himself for office and enter on a personal canvass, it became necessary to form some sort of a nominating agency. Meetings held for this purpose were called caucuses. Notice of time and place was given and every member of the party was at liberty to attend. This mode of selecting candidates was soon found to be inapplicable, where a constituency was large or scattered over an extensive district. Hence the substitution of a representative caucus, composed of delegates appointed at some primary meeting. The original caucus became merged into a nominating convention and disappeared.

But it was too useful a machine to throw into a fence corner. It soon emerged in another shape. It assumed the power to call the conventions, organize them, judge of the qualification of delegates, dictate who should be nominated, draw the creed and party platforms, and determine what position the party shall take on some important measure. Fidelity to the caucus decision has ever been zealously inculcated by politicians as a political virtue.

To refuse to go into a caucus and abide by its decisions makes one liable to invidious suspicion and the reprobation of the party leaders. To go into caucus and bolt its decrees is the unpardonable sin of politics. Hence the caucus has grown into a machine for the dictation of the laws and distribution of offices, and that, too, often by men more distinguished for intrigue than talent, more audacity than conscience.

Instead of being an organ through which the will of the party may be ascertained and expressed, it has become an arbitrary and irresponsible board of dictation often used to defeat the will of the people. And this by a despicable minority. Take an illustration of the possible evils of caucus jugglery. The present Legislature of California is composed of 120 members, elected for the purpose of enacting laws for the weal of the people and selecting a United States Senator when one is needed. As matters now stand, all this may be despotically done by 14 men and all the other 106 relegated to the vassalage of registering their decrees. The Senate is composed of 40 members, 26 Democrats and 14 Republicans. It is right here lies the black magic of the caucus. Fourteen is a majority of the Democrats, and these 14 may dictate the policy of the Senate, and, as the Assembly is Republican, their brethren in that body must come to their terms or be left to the mercy of the Philistines. Such is one of the infirmities of the caucus system, and the method finds favor in all the States and in all parties.

It is obvious that the whole system is fraught with immense peril. In bad hands, as it is very liable to be, it is a vast and potent engine of political jobs and debauchery. The caucus compels the election to the United States Senate of a man who is not the choice of the people nor his own party. The caucus packs the committees and shapes legislation. The caucus seats or unseats members. It has become the great boodle mill where the sacks are taken and around which the seedy and hungry wait to be fed. Talk as we may of the "machine," "bosses," "strikers," "track-greasers" and the like, we shall never get rid of this gang of political tricksters and brokers as long as we maintain the caucus system. It never was anything but a device by which the minority might rule, and a minority whose ways were dark and suspicious. By its operation, men whose first duty is to the people are bound hand and foot, and their votes delivered by bill of sale. The whole thing is degrading in practice and contrary to the spirit of our political institutions in design. It is rotten from top to bottom and has not one redeeming feature. As all reforms must begin with the people, the only apparent way to crush the head of this serpent that lies coiled in halls of legislation, committee-rooms, and often behind the speaker's desk, is to establish the rule and make it imperative in all parties to elect no man to office who will not give a solemn pledge not to go into caucus.

The Fruit Union.

Annual Meeting of Stockholders.

The meeting of stockholders in the California Fruit Union began, according to announcement, in Irving hall, in this city, on Wednesday, Jan. 19th, at 1 P. M. There was a good attendance of fruit-growers. President Hatch occupied the chair, and in his opening address described the difficulties which beset the efforts of the organization during the last year, and claimed that, notwithstanding the mistakes and unfavorable conditions, the Union, directly and indirectly, rendered a very important service to the fruit interests of the State.

H. A. Fairbank, secretary, read the annual report of the directors, of which we can only give a sketch this week. At first the situation of fruit-growers in Florida and other States was described, and in matters of distribution and transportation it was shown that a striking similarity existed between the California problem and that of other States. The main troubles arose from lack of united action among growers in their own interests. The things to be gained are cheaper and quicker transportation, better distribution and better union of action among growers.

It was shown that there had been a considerable falling off in the interest in the Fruit Union from various causes. It was stated that there are now paid up 9957 shares less than first taken and 6000 less than on the second assessment. The total receipts from all sources during the year were a little over $8000, and expenditures had left but about $130 in the treasury and about $1700 bills unpaid, the greater part being unpaid salaries to the officers.

One thousand and thirty-seven cars of deciduous fruits were sent East last season, of which the Fruit Union sent two-fifths. Mr. Fairbanks' report gave the following condensed summary of the season's business of the Fruit Union:

Total number of packages shipped, 258,149, consisting of 111,933 boxes and 147,216 crates.
Total number of *net* pounds of fruit, 5,897,412; gross receipts, $355,416.98.

EXPENDITURES.

	Amount.	Per Ct.
Freight paid.....	$175,315 53	49.30
Commission.....$35,402 24		
Cartage..... 2,890 57		
Cost of packages. 32,094 53—	70,387 34	19.80
Net receipts of shippers.....	109,714 11	30.90
Total.....	$355,416 98	100.00

The fruit sold for 6.02 cents per pound.

After the reading of the secretary's report, Mr. Buck called for report of committee appointed by the State Fruit-Growers' Convention. Capt. Weinstock, the chairman of the committee, reported that the committee had waited upon the railway authorities and enforced the request of the Sacramento Convention for the following rates: For 10-car trains to Chicago, passenger time, $400 per car by passenger trains, $200 per car by slow freight, and $400 per car to Atlantic points. Some few weeks later a letter was received from Mr. Towne, offering rates of $400 per car of 10 cars, Sacramento to Chicago, time to be within 12 hours of passenger time, but not guaranteed; $500 per car for cars on passenger trains, and $200 per car by freight trains.

In reply to this a letter was sent citing the report of Mr. Lubin, the agent of the committee at the East, that Mr. Huntington had consented to grant the rates asked for by the Fruit-Growers' Convention, and in response a letter was received from J. C. Stubbs, stating that Mr. Huntington must have understood that the rates would have to be fixed in San Francisco and stating that the rates offered in the former letter were the best that could be done.

A letter was then written to Mr. Stubbs stating that the fruit-growers desired to know where the opposition was which prevented granting reasonable rates on fruit shipment, and a strong plea was made for the granting of the rates to which Mr. Huntington had seemingly consented. Reference was also made to the resolutions adopted by the Boards of Trade of San Francisco and Sacramento and telegraphed to Messrs. Huntington, Stanford and Crocker, and to which favorable telegraphic answers had been received. Thus the matter stands, the Eastern authorities of the road seeming to be at discord with the managers in Sacramento.

We have room in this issue for this mere skeleton of Capt. Weinstock's report. It was well received and many complimentary allusions made to the tact and energy with which the negotiations had been thus far conducted. It was decided to appoint a new committee on the part of the Fruit Union to wait upon Mr. Towne and see if rates could not be arranged as asked for by the growers, and apparently approved by Mr. Huntington and Mr. Crocker. The following is the new committee: Drury Melone, Wm. Johnston, H. Weinstock, H. K. Platte, J. H. Flickinger, L. W. Buck, William Barter, A. T. Hatch, A. Block, A. Abbot, H. R. Dodge, W. L. Merry.

The Fruit Union is still in session as we go to press on Wednesday evening, and will probably be employed for another day or two in arranging amendments to by-laws of which we will give an account in our next issue.

DEATH OF THE CHIEF SIGNAL OFFICER.—Gen. Wm. B. Hazen died at Washington, of diabetes, on the 16th. He was born in Vermont, 1830, graduated at West Point with credit in 1855, and served for the next four years against Indians on the frontier. Severely wounded in the Comanche war of '59, he was forced to retire awhile from active service, but soon after the outbreak of the rebellion was able to take command of the 41st Ohio. Having gone through the war in the West with high honors, he was commissioned as Colonel in the regular army. On the death of General Myer, in 1880, he was appointed Chief Signal Officer, with the rank of Brigadier-General, and held the position at the time of his death.

"THE SENATOR'S DAUGHTER."—We are not in the habit of using continued stories, but the one now running in our Home Circle, written by MRS. S. C. SANFORD, is so pleasing in style and so good in its moral lesson that we make an exception in its favor, partially as an experiment, and we would like to hear from our readers as to their preferences for such stories or for the shorter sketches, essays, etc., which we have generally relied upon to fill our Home Circle. "The Senator's Daughter" will be completed in about three more numbers.

GRAPE-GROWERS.—The Viticultural Commission has postponed action upon Mr. Wetmore's resignation for a month. It is hoped by those who desire the continuation of the Commission's work that he may reconsider his action, and that greater harmony and better mutual understanding may prevail among all those laboring for the promotion of the grape industry. Preparations are in progress for the Grape-Growers' Convention in this city next month.

SILK.—A reader at Norwalk, Los Angeles county, asks for information on silk culture. There is a pamphlet on silk culture by Mr. W. B. Ewer, published at this office, and sent postpaid for 10 cents. Other documents can be had by addressing Mrs. Rienzi, secretary State Board of Silk Culture, 21 Montgomery avenue, S. F.

The Supreme Court.

One of our recently elected judges to the Supreme bench, in speaking of the crowded calendar of this court to a newspaper man, said that it was owing to the fact that "our system is too tolerant of vexatious appeals." An appeal may be taken in nearly every civil case over which the Superior Court has jurisdiction, and in all criminal cases of the grade of felony. The result is, that nearly every case is appealed. Man is naturally a quarrelsome animal, and when his dander is up will fight as fiercely and persistently over a lame pig or mangy cur as for a piece of land. There surely ought to be some way to protect the time and labor of the Supreme Court from the petty disputes and spiteful tempers of petulant neighbors. It would certainly be some restraint upon the litigious spirit and a mercy to the court if the limit of appeal was fixed at $500 or even $1000, for no winning party ever went to the Supreme Court for a less amount and had much left after paying the lawyers and deducting expenses not allowed in the cost bill.

But is not the Supreme Court partly to blame for its engorged calendar? A statement on appeal we will suppose assigns 10 errors. The Supreme Court in its hurry to dispatch business looks over the record, finds one error, reverses the case, and sends it back without any expression of opinion as to the other nine. Another trial is had and another appeal is taken with like result. And thus the case is kept in oscillation between the courts till the last error is reached. This sort of practice is certainly vicious. If the Supreme Court would make it a rule to pass on every point of law raised at the first trial, it is clear that all the law involved in that particular case would be settled on one appeal, and it would rarely happen that a case would go to the appellate court a second time.

The Bar Association of San Francisco at its recent annual meeting discussed the causes of delay and the uncertainty of justice in our criminal courts. It is no exaggeration to say that crime flourishes under our evasive and procrastinating system. Witnesses are often badgered out of their wits, technical evasions are allowed, and a fit of frenzy or anger is alchemized into exculpatory insanity. As Judge Wilson said before the association, there was a reform needed in criminal practice; and now that the Bar Association has given an impulse to this subject and voiced the public feeling, it may be well to ask whether the costly delays and impediments to prompt adjudication exist wholly in the Superior Courts. It may be that the Supreme Court has fallen into habits of practice that do not facilitate litigation.

Improved Saxony Sheep.

We give on this page representatives of a breed of sheep which will be new to many of our readers, and yet is one upon which the American idea in the way of improvement has been stamped by many years of breeding, as with the other improved breeds which have been developed in this country. The animals are of the improved Saxony breed and represent the result of a continued effort begun in 1820 by Joseph Clark, of Washington county, Pennsylvania, and continued by his son, John G. Clark, of Lagonda, in the same county, the present owner of the flock. The ram is Prize Winner No. 1, the name being justified by the fact that he has captured six first and one second prizes at fairs since his first entry in 1880 as a ram lamb. His fleece has also taken premiums; it was at the head of the display at West Virginia State Fair, and took silver medal in 1884 and diploma in 1885, as sweepstakes, in competition with all classes.

The ewe in the engraving, No. 17, is registered in the first volume of the National Improved Saxony Sheep-Breeders' Association, and has been one of three ewes taking first prize several times at Washington county and West Virginia State Fairs.

Since this flock was established in 1820, the animals have all been bred in line, with a special regard to the highest class of wool, due attention, however, being given to form, size and vigor of animals. They will compare in size with any of the Merino classes. They are good breeders and healthful. The wool is white, crimpy and beautiful, and commands a ready sale at the highest prices, as it is claimed Mr. Clark's sales for the last 25 years have averaged over 62 cents.

Crystallization of Fruit.

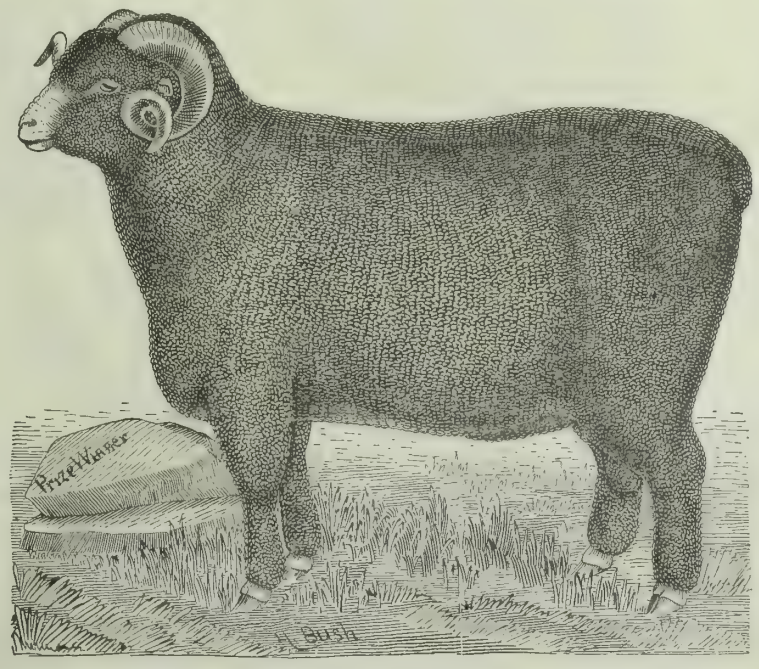
NUMBER I.

Reports by Our Consuls Abroad.

We are led to give considerable space just at this time to information concerning the manufacture of crystallized or *glace* fruits, for several reasons: First, the information is asked for by our readers; second, the efforts thus far made in this State, which have been described in previous issues of the RURAL, have been apparently quite successful; third, owing to the considerable importation of these products from abroad, it is plain there is a demand which should be supplied by California; fourth, our fruit crop is constantly increasing, and it is time every effort was made to secure every avenue for the profitable disposition of the product.

As evidence of the truth of the second point





RAM AND EWE OF IMPROVED SAXONY BREED.

advanced, we have the reports from San Jose and Los Angeles, where the largest establishments are now located, that their product of 1886 was far too small to supply their orders. Of the Los Angeles establishment, one of the daily papers says:

The fruit-crystallizing works at Los Angeles have received more orders from the East than can be handled. They used 80 tons of fruit this year, and will need more than three times that amount next year. They will want large quantities of apricots, figs, blackberries, strawberries, oranges, grapes and cherries. They advertised last season for a large quantity of blackberries, but did not get a berry.

Of the results of the first season's run of the establishment at San Jose, the *Herald* says:

The demand for San Jose *glace* fruits during the holidays was so great as to far exceed the supply, even right here where it is made. A. Damonte and the agents of Barbour & McMurtry could have sold 10 times more than they did if they had had it. And from the other cities and towns of California the same cry for more constantly came, while the Eastern States would have taken a hundred times as much as they did if they could have got it. It is to be hoped that the productive capacity of both factories will be increased before next season so that the local demand at least will be fully met. And, judging from present indications, there need to be no fear of making too much *glace* fruit.

Of the other reasons which we have advanced for more attention being paid to the manufacture of *glace* fruits, there will appear approving data hereafter.

Sources of Information.

The sources of information concerning crystallizing fruits are naturally the countries which have already made the greatest advance in this direction. We shall learn much by local experience, and shall, no doubt, invent methods and processes which will be of advantage under our local conditions. First, however, we look abroad, and fortunately several of the United States Consuls studied up the industry and contributed to the State Department at Washington letters on the subject during the last year. We shall give first the report of

Consul Mason, of Marseilles.

The business of preserving fruits by the crystallizing process is peculiar to Southeastern France, and is practiced on a large scale at Apt, in the department of Vaucluse, at Clermont, in Auvergne, as well as at Marseilles, Grasse, Avignon, and other places of less importance.

The product is exported largely to England, the United States and various other countries, including Algiers, the East and West Indies, and even South America, where the profusion of fresh fruits would seem, at first thought, to render such an expensive import almost superfluous.

The kinds of fruit preserved by this process are mainly pears, cherries, apricots, pineapples, plums, figs, citrons, oranges, melons, and a kind of dwarf orange called "chinois," which grows to some extent in the district of Nice, but is imported here, mainly from Italy and Corsica. Peaches are used for this purpose only to a limited extent in the region of Marseilles, the "free-stone" varieties being too costly and the supply too small for profitable use on a large scale.

The crystallizing process is in principle simple and nearly uniform for all the above kinds of fruit, but it requires a certain skill and delicacy of manipulation, which can only be obtained by experience, and which it is difficult to precisely define.

The essential thing to be done is to extract the juice of the fruit and replace it in the pulp with liquid sugar, which, upon hardening, not only preserves the fruit from fermentation and decay, but retains it in its original form and consistency. For this purpose it is necessary that the fruit should be fresh, clear of all decay or other blemish, and of precisely the correct degree of ripeness. This last is an important and difficult requirement, as the proper degree of ripeness for crystallizing varies with the different varieties, and is so precise as to exclude from use for this purpose much of the fruit sold during the season in open market, and which has not been gathered, assorted, and transported with sufficient care.

Supply of Fruit.

In the neighborhood of Apt and Avignon, where this method of preserving forms a leading industry, fruit-growers are carefully instructed in this respect, and deliver their crop to the confectioners in the best condition. Contrary to what is popularly believed, native fruits are rarely or never really cheap in Southern France, except sometimes for a brief period, when, by reason of some exigency of weather or sanitary trouble, the supply of apricots, figs or melons may temporarily exceed the demand.

Oranges which come from Spain and Italy, and citrons from Corsica and Algiers, are, in favorable seasons, plentiful and reasonably cheap; but apples, pears, cherries, peaches, plums and berries are always costly in the market of Marseilles. At this time (the end of October) ordinary apples command at retail from 4 to 8 cents per pound, and the average price paid by confectioners for the various fresh fruits used in crystallizing varies from 8 to 10 cents per pound.

At Apt and Clermont, which are small towns in the midst of fruit growing districts, prices are somewhat less than this. Refined sugar, the other principal material, costs $9.65 per 100 pounds. If moist or inferior sugars are used, this item of expense may be slightly reduced; but the saving thus effected is more than lost by the inferior quality of the product. This is exemplified by the Corsican citron preserved at Leghorn.

Thus prepared, the fruit is immersed in boiling water, which quickly penetrates the pulp, dissolving and diluting the juice, which is thereby nearly eliminated, when the fruit is subsequently taken from the water and drained, leaving only the solid portion of the pulp intact.

This process of "blanching" must also be done with exact nicety, the period of immersion in the hot water being determined by the size and ripeness of the fruit. If immersed too long, the pulp is either overcooked or is left too dry and woody. If taken out too soon, the juices left in the pulp prevent perfect absorption of the sugar afterward, and, by eventually causing fermentation, destroy the value of the product. In this, as in other stages of the process, the only guide is experience. A skillful workman can tell by the color and appearance of the pulp when it is properly "blanched," and this knowledge invariably commands employment and liberal compensation.

It will be borne in mind that the preserved fruits under consideration are of two kinds—"fruits glaces," glazed, and "fruits crystallises"—but this difference relates simply to the exterior coating of sugar, which results from the final stage of the process. Until that finishing process is reached, the method of preparing glazed and crystallized fruits is identical, and the value of the product is the same.

The Process of Crystallizing.

The fruit is first carefully assorted in respect to size and uniform degrees of ripeness.

Pears, pineapples and quinces are pared, citrons are cut into quarters and soaked a month in sea-water, and the "pits" of apricots, cherries and peaches are carefully removed.

Even this preparatory process requires a certain degree of skill, since the stone must be removed with as little injury as possible to the form and solidity of the fruit. This work is done mainly by women, who earn thereby 50 cents per day.

After being thus scalded, some fruits—apricots, for example—are again assorted into two or three classes, according to the degree of softness that has been produced, for the reason that if kept together they would take up the sugar differently, some losing their form entirely, while others would remain sufficiently impregnated. For these different grades, sugar syrups of different degrees of density are required, the softer the fruit the stronger the syrup required for its preservation.

For the same reason, each of the different varieties of fruit requires a syrup of corresponding strength.

Pears, citrons and pineapples, which remain hard and firm, take best a syrup having a density of from 18° to 25°; while apricots, plums and figs are treated with syrups which gauge from 30° to 42° by the aerometer.

The requisite syrup having been prepared by dissolving the sugar in pure water, the fruit is immersed in it and left at rest for a certain period in large earthenware pans, glazed inside, and having a capacity of about 8 gallons.

The syrup penetrates the pulp, and gradually withdraws and replaces the remaining fruity juice, which, as it exudes and mingles with the transparent liquid, produces a certain filmy or clouded appearance, which marks the commencement of fermentation. When this has reached a certain stage, the vessel containing the syrup and fruit is placed over

the fire and heated to 212° F. This corrects the fermentation and raises all impurities to the surface, whence, if necessary, they can be removed by skimming. If the syrup is of proper density, this process of impregnating the fruit with sugar will be complete in about six weeks, during which time it is usually necessary to perform this heating process, as above described, three times.

The impregnation of the fruit with sugar being thus complete, it is taken out, washed in pure water to remove the flaky particles that adhere, and is then submitted to one of two finishing processes, as follows:

If the fruit is to be "glaced"—that is, covered with an ice or transparent coating—it is dipped in a thick, viscid syrup of sugar and left to dry and harden rapidly in the open air. If it is to be crystallized, it is dipped into the same syrup, but is then cooled and dried slowly in a kiln or chamber warmed to a temperature of 90° Fahrenheit.

This slow cooling causes the thick syrup, with which the fruit is covered, to crystallize and assume the usual granulated appearance. The work is now finished. If properly done, the fruit thus preserved will bear transportation to any climate, and will keep firm and unchanged for years. It is packed in light wooden or cardboard boxes, and may be shipped in cases containing several hundred pounds each.

Uses of the Spent Syrup.

During the process of impregnating the fruit with sugar, the syrup in which it is immersed is gradually deteriorated by losing its sugar and absorbing the juices of the fruit. It is finally utilized in the preparation of "confiture d'Apt," which is made of the soft, overcooked and irregular pieces of fruits of all kinds mixed in irregular proportion and preserved in the spent syrup, which is boiled down to the required consistency. This branch of manufacture, like many others, gives opportunities for sharp practice, particularly in the use of glucose in place of pure sugar, and of certain chemicals, notably salicylic acid, which there is reason to believe is employed to some extent by certain confectioners to shorten and thereby cheapen the process of preservation.

Salicine, the basis of this acid, is a flaky substance derived from the bark of certain species of willow. It is used in medicine as a febrifuge, two grains per day being regarded a safe allowance for adults. Salicylic acid is made by the action of sulphuric acid, bichromate of potash and water upon salicine. In just what degree salicylic acid is deleterious to health I am not informed, but it is the opinion of good judges that its use in the preservation of fruits and wines should be prohibited by law. It is a powerful antiseptic, and is for this reason used in the mixing of wines, and, as already indicated, in the fruit-crystallizing process to arrest and prevent the acetous fermentation of the juice, which would otherwise spoil fruits which have been imperfectly prepared.

As has been shown above, the process of eliminating the natural juices of fruit and replacing them with sugar by immersion in syrup requires about six weeks. By the use of salicylic acid, which penetrates the pulp and exerts upon the juices an antiseptic influence which prevents fermentation, this process can be reduced to a few days only. Time, labor and sugar are thereby saved, but, naturally, at the expense of quality in the finished product.

Cost and Market Values.

The net cost of preserving fruit by this process varies, of course, with the price of sugar, labor, interest on investment, etc., and this is, moreover, a point upon which confectioners are not disposed to be communicative.

But with the facts at our disposal the question of costs can be closely approximated. Sugar costs here this season, as already stated, 9.65 cents per pound, and fruit in condition for crystallizing on an average 8 cents per pound. The labor of women to pare, stone, and otherwise prepare the fruit costs 50 cents per day; that of men sufficiently skilled in the processes of scalding and preserving to work under the direction of a foreman, commands from 80 cents to $1 per day. In most establishments the proprietor or a member of the firm is the superintendent, who personally directs the work.

Most leading confectioners and caterers of Marseilles manufacture their own crystallized and "glace" fruits, which they sell at retail from 50 to 75 cents per pound.

The wholesale trade prices of quantities for export are much less, as will be shown by the following exhibit of the average values, as declared for export to the United States and other countries, of the several fruits during the season of 1884, which was a year of abundant fruit harvest, and the present summer and autumn, when all fresh fruits, except cherries and figs, have been more expensive by reason of a short and inferior supply:

Articles.	1884. Cts. per lb.	1885. Cts. per lb.
Apricots	27½	29
Chinois—Green	24½	23
Ripe	24	25½
Cherries	23	23
Figs (Marseilles)	21	20
Pears—Red	24	25½
White	24	24
Plums—Green Gage	24½	29
Yellow Mirabelles	25	26
Pineapples (from West Indies)	33	35
Citron	13	22
Melons	24½	25½
Strawberries	29	29
Mixed fruits	25½	30

This would give an average of about 24 cents per pound for 1884 and 26 cents for 1885.

Deduct from these values, say 20 per cent. for manufacturer's profit, and we reach from 19 to 20 cents per pound as the average cost of production.

Add to these values the cost of importation and a duty of 35 per cent ad valorem, and the crystallized fruits of Provence become a rather expensive sweetmeat to American consumers.

The Industry in the United States.

But there would seem to be no good reason why this dainty and profitable industry could not be established with immediate and complete success in the United States, where most ordinary fruits grow in profuse abundance and with finer flavor than is developed by the same varieties in any part of Europe. Sugar is equally cheap, and fuel far less expensive in our country than it is here. From the foregoing account it will be seen that the process of crystallizing fruits, as well as the requisite apparatus, are exceedingly plain and simple. But the most profusely furnished kitchen, abundant raw material, and a library of books on cookery, will not enable a novice to prepare a well-cooked dinner.

There is so much in the art of crystallizing fruit, which can only be learned by experience, that in order to begin the experiment with certainty of success, American pioneers in this manufacture should employ competent French workmen to superintend the construction of their plant, instruct the operatives, and superintend the whole process of preserving and packing during the infancy of the business.

The extent to which the crystallized fruits of this country are imported by the United States would seem to indicate that here is an opportunity for a new and profitable enterprise.

FRANK H. MASON, Consul.
U. S. Consulate, Marseilles, Oct. 31, 1885.

Citrus Fair at San Jose.

EDITORS PRESS:—At a regular meeting of the Horticultural Hall Association, it was decided to invite exhibits from San Benito, Santa Cruz, San Mateo, Alameda, Monterey, Contra Costa, Stanislaus, Merced, Fresno and San Joaquin as county or individual exhibits in the coming citrus fair, called the Central California Citrus Fruit Fair, to be held in the New Horticultural hall, San Jose, commencing February 7, 1887, and continuing one week. Nuts, berries or other winter fruits of any kind will be thankfully received. The association pays no premiums, but may give diplomas to counties. Fruit will be at the disposal of the exhibitor after the close of the fair, and all exhibitors will be admitted free. All exhibits consigned to Cyrus Jones, San Jose, will be properly attended to.

CYRUS JONES, President.
FRANK DUNN, Sec'y.
San Jose, Jan. 15th.

Some of the Latest Fashions.

Misses' Dress.

FIG. 1.—A noticeable simplicity of style characterizes this dress, and its full skirt renders suitable the use of all kinds of fancy materials. In this instance the mode is brought out in *mordore* silk and fancy plaid wool goods. The skirt is of the plaid goods, and is gathered all round at the top to fall in graceful, loose folds about the figure. It is hemmed at the bottom and joined to the lower edge of the body, which is in plain, round basque style, with jaunty jacket fronts of the silk opening over a vest of the plaid goods. The vest closes down the center with buttonholes and small metal buttons, and is fitted closely to the figure by bust darts. Under-arm gores, side-back gores and a curving center seam fit the body superbly, and over the seam joining the skirt and body is arranged a pretty girdle-like section of silk that is pointed and seamed at the center of the front and has its ends concealed under a large sash bow of *mordore* satin ribbon that is fastened at the center of the back. A fancy clasp is fastened at the throat, and the fashionable high finish is achieved by the standing collar. The coat sleeves are of the plaid goods and are trimmed with bands of silk that almost encircle the wrists, the ends on the upper side being decorated with two buttons. Very picturesque and *distingue* effects may be achieved in a dress of this kind by the choice of colors and materials. For festal wear delicate or bright colors are in good taste, but for street uses more subdued effects are liked, unless a long coat or wrap is worn, when the bright hue will scarcely be perceived. All varieties of dress goods may be made up in this way, and one material may be used throughout if preferred. The skirt may be of lace flouncing, if an airy effect be desired; or it may be of wool or silk, and striped with velvet or fancy ribbons or braids. On China silks and tissues insertions of ribbon with loop finished edges are exceedingly effective and novel.



FIG. 1.—MISSES' DRESS.



FIG. 2.—LADIES' FELT TURBAN.



FIG. 2.—LADIES' BONNET.

Ladies' Felt Turban.

FIG. 2.—A gray felt turban is here shown. It has the high crown and somewhat stiff, rather high brim that is just now fancied. The brim is faced quite smoothly with fancy piece fabric showing silver and green velvet in its pattern. Green velvet with tiny silver dots upon it is drawn up in drapery fashion from each side to form high loops and give a full, soft, puffed effect just in front. Gray wings are placed about this and emphasize its artistic arrangement. In black and gray this decoration is very effective, especially for those who find the stiff felt outline rather trying to the face.

Ladies' Bonnet.

FIG. 3.—The keynote to the style of this bonnet is simplicity. It is of dark-green felt, its rolling brim being faced with velvet of the same shade. Extending well over on one side, and yet apparently quite in front, are long, draped loops of green velvet that form a fine background for the many-shaded brown bird that is placed against them. The ties are of warm-brown gros-grain ribbon, with the usual picot edge; they are folded to form a finish in the back, and after being securely fastened at each side flare into the proper length ties and are looped under the chin.

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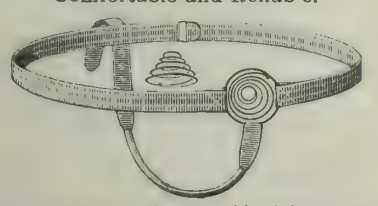
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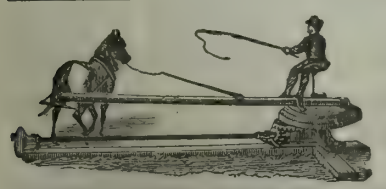
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Recently purchased by the West Coast Land Company, are now offered for sale in subdivisions.

This immense body of land, including 12,000 acres unsold of the Huer Huero ranch, belonging to C. H. Phillips, comprises 64,000 acres of rich, virgin soil. It lies in a compact body, in the center of San Luis Obispo county, and is within from 9 to 20 miles of the sea coast. It is covered with white and live oak timber, is one of the most picturesque bodies of land in the State, and requires

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This ranch, containing 20,400 acres, has been subdivided into 230 lots. It is 12 miles from the sea coast, and is 20 miles north and west from San Luis Obispo city.

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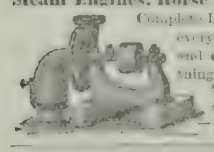
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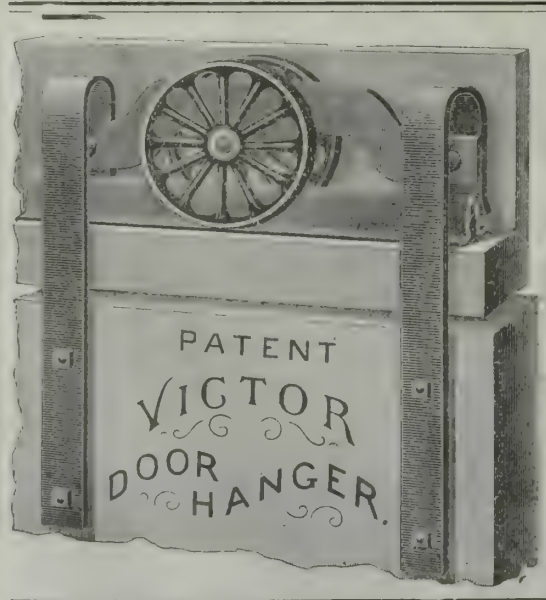
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E. C. CLOWES, Proprietor, Successor to W. B. WEST.
STOCKTON, CAL., October 27, 1886.
This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.
WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

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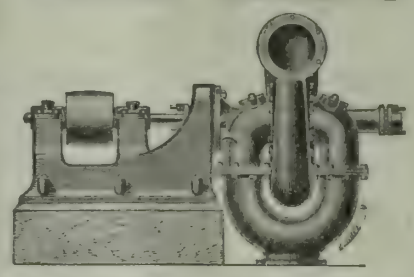


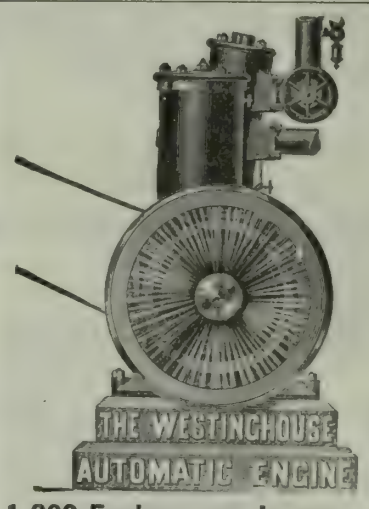
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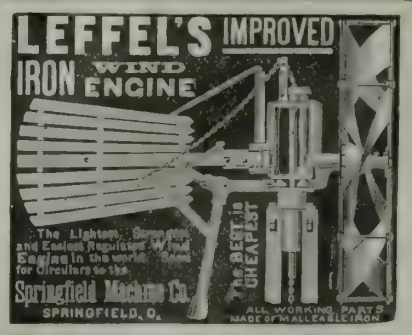
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Correspondence invited. Apply soon. Address, Ranch Owner, Box 2361, S. F.



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All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.
CHAS. J. HOLMES, Manager.

A Stupendous Blast.

On Wednesday of last week the schooner Parallel, Miller master, cleared from S. F. for Astoria. Her cargo consisted mainly of dynamite—1635 50-pound cases—amounting to something over 40 tons, shipped by the manufacturers, Bandmann & Nielsen, and intended for blasting on lines of railroad construction in Oregon. Beside this, she carried in her hold a quantity of hay, coal, kerosene oil and pig iron, and a large case of detonating caps, and on deck lumber and a salmon boat.

By Saturday night her owner, S. B. Peterson, of this city, supposed her 200 or 300 miles on the way to her destined port; but owing, as the captain states, to light winds, she had barely got outside the heads, and the breeze dying out altogether, was found to be drifting toward the Seal Rocks.

Seeing that the vessel was bound to go ashore, and fearing an explosion as soon as she struck, the captain and seven men abandoned her, taking to the boat and pulling across to the shores of Marin county. The schooner soon went upon the rocks north of the Cliff House, just around and beyond the rugged point shown in the engraving, and was bumped upon them by the waves for three or four hours before the final crash.

Meanwhile, a number of persons in the vicinity had become aware that a vessel was ashore, but knew nothing of the perilous load she carried, and were watching her from the bluff above or endeavoring to save something from the wreck. Before long it was discovered that no soul was left aboard; and happily most of the watchers had betaken themselves to rest when, a little past midnight, came the frightful concussion that blew the craft to splinters, shattered buildings on the adjacent hights, and showered the neighborhood with fragments of rock, broken timbers, and scraps of rigging. Had the explosion occurred an hour or two earlier, many lives must have been lost; as it was, three of the crew from the Life-Saving Station received serious injuries.

Those who were on the spot give thrilling accounts of their terrible experiences, which are narrated in detail by the city press. The shock was felt as far away as Vacaville, Stockton and San Jose. The scene of the disaster was visited on Sunday by curious crowds—the largest, probably, that ever gathered at the Cliff—the Ocean railroad proved unequal to convey the myriads back from the beach, and while greedy hackmen charged almost any price they pleased, many pilgrims were compelled to plod their weary way homeward on foot to the outer termini of the cable-roads.

The principal damage was done to the further side of the Cliff House, and to structures beyond and above it, which do not appear in the picture.

Cornering Turkish Prunes.

NEW YORK, Jan. 17.—The *Commercial Bulletin* says: The market for Turkish prunes continues to excite the interest of the entire trade. The six-cent point prices they were expected to attain has been arrived at, and the advancing tendency of the market has not been checked. The situation to-day is regarded stronger than at any time past. It is generally conceded that speculators have matters pretty well their own way. At Trieste the market has been excited by the operations of the syndicate here and it is difficult to obtain free offers of stock. The syndicate now claims to possess control of the world's stock of Turkish prunes, and they announce the action they propose to take in governing the future market. They intend working in the interest of all dealers, and will arrange matters so that all will be protected. They will lead off immediately with an offering of 1000 casks, in lots of not less than 100, at six cents, and will enter into an agreement with the buyer that no sale in quantity or at a less price will be made, the seller to forfeit $50 per cask upon proof of any such transaction. Following the placing of the first thousand a second thousand casks will be offered at six and a half cents, and so on in lots of 1000 by half-cent advances until the price of 10 cents is reached, after which time it is believed the stock will be small and further governing will be unnecessary.

DEATH OF A VALUABLE HOLSTEIN-FRIESIAN COW.—A telegram from San Luis Obispo reports the death, on the 16th inst., of E. W. Steele's famous Holstein-Friesian cow, Anna Dulytra, a portrait and account of whom appeared in the RURAL PRESS last September. Many interested in the improvement of stock and friendly to Mr. Steele will be with us in regretting the loss of this noble creature and sympathizing with the disappointment of her owner. It is reported that Mr. Steele paid over $1000 for her last year.

PHŒNIX, ARIZONA.—We have received from G. W. Ingalls & Co., mining and real estate agents at Phœnix, a large and singularly handsome chromo-lithograph, giving a birds-eye view of that city, set about with 10 or 12 lesser pictures of noteworthy buildings and other interesting objects in the neighborhood. A concise account of the town—its location, climate, industries, institutions and prospects—completes a publication at once pleasing and valuable.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING JANUARY 4, 1887.

355,371.—PATTERN FOR HORSESHOES—J. E. Bingham, Walla Walla, W. T.

355,586.—VENTILATING CARS—Buckley & Koefoed, S. F.

355,587.—VENTILATING CARS—Buckley & Koefoed, S. F.

355,436.—WIRE CLOTH STRETCHER—P. A. Buell, Stockton, Cal.

355,602.—GOPHER GUN—F. L. Emerson, Brentwood, Cal.

355,463.—CAR AXLE—W. J. Murray, Jolon, Cal.

355,412.—ELECTROLYTE—W. Y. Quinby, S. F.

355,655.—STEAM BOILER—G. H. Sutherland, Walla Walla, W. T.

355,656.—SELF-OILING PULLEY—E. S. Sutton, Snohomish, W. T.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

California Canned Fruit.

EDITORS PRESS:—I have thought for some time that a word from here in regard to California canned fruit might be of interest to you. I think the goods of only two canning companies are on the market here this winter, A. Lusk & Co. and the Cutting Packing Co., though a year ago the California Packing Co.'s goods were on the market. In my family we have been using peaches, Muscat grapes, German prunes and egg plums, put up by A. Lusk & Co., apricots by Cutting Packing Co., and green gage plums by the California Packing Co., alternating these with fruit put up by Baltimore firms. The superiority of the California fruits over those put up by the Eastern firms is too marked to be for a moment doubted by any one who tries them. Indeed the wonder is how those delicate flavors so peculiar to such fruits as Muscat grapes, apricots, and in fact all the fruits mentioned, can be so completely retained.

G. H. FRENCH.

Southern Illinois Industrial University, Carbondale.

A PRESENT TO A PRESIDENT.—The students of the Pacific Business College, in this city, surprised Prof. T. A. Robinson two days before New Year's, by giving him a handsome black cane, with an elaborate gold handle, suitably inscribed. Felicitous presentation speeches were made by Messrs. A. D. Ewing and W. A. McNamara; and Pres. Robinson, though taken off his guard by this manifestation of his pupils' kind regard, responded in a strain playful yet feeling.

"THE WINNERS" is the title of a brilliant X-mas card, 24x18 inches, from D. M. Osborne & Co., Auburn, N. Y. It bears life-like portraits of Jay Eye See, Maud S., and other famous flyers, as well as delineations of the Osborne Mower and Steel-frame Binder.

New Subscription Terms.

Our recent new terms for inducing payment of subscriptions in advance are meeting with favor in all quarters. New subscribers are coming in and old patrons are again entering their names.

We are confident of greatly increasing our large list of subscribers within the next few months.

A few subscribers have complained of paying at the rate of $3.50 when fully one year in arrears. To induce all such to settle up, we will, *during the next 30 days,* give all such the privilege of paying all back dues at the rate of $3.25 per annum.

Jan. 22, 1887.

The Chamber of Commerce on Fruit and Silk.

At the annual meeting of this body in this city, Jan. 18th, an address was made by the retiring president, H. L. Dodge, in which the following allusions were made to agricultural subjects:

Freight Rates on Fruit.

A special meeting of the trustees was held Jan. 14th, at which resolutions were adopted requesting the railroad company to take green fruit to Chicago in ten-car lots at $300 per car.

The substance of these resolutions was telegraphed to Messrs. Stanford, Huntington and Crocker, with the gratifying result that on the following day a telegram was received from Mr. Huntington, saying:

"We wish to move fruit product at lowest price possible and still pay any net money to carriers. Have telegraphed Mr. Towne, General Manager, to do the best he can, with the request that he take fruit to Chicago at $300, and to New York at $400, per car, unless he has good and substantial reasons why it should not be done."

Silk Culture.

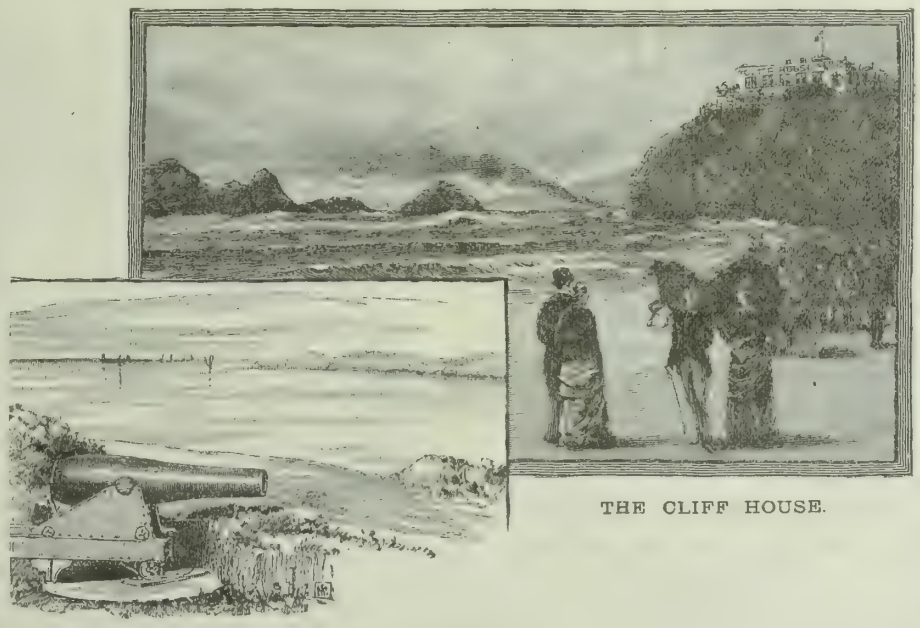
This industry has become of sufficient importance to merit notice here. The soil and climate of California are admirably adapted to the culture of the mulberry tree, 20,000 of which already dot our foothills.

The enterprise can be entered into at a minimum of expense. The wives and children of our farmers can do the work and the cocoons find ready sale to the manufacturers.

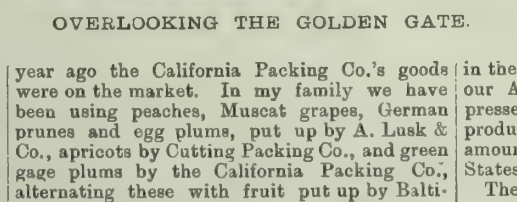
Improved machinery of American invention has placed our country in the lead of all others in the manufacture of spun or waste silk, and our American consul at Lyons recently expressed the opinion that in a few years the product of silk and silk goods could be made to amount to $50,000,000 a year in the United States.

The value of the manufactures of a single town—Paterson, N. J.—increased from $5,000,000 in 1874 to over $18,000,000 in 1880. The production of the raw silk in the United States last year is estimated at 40,000 pounds.

Very large importations of raw silk are made at great expense which could and should be produced in this country. The enterprise has received considerable encouragement from Congress and from the State of California, and it is to be hoped that more material aid will be rendered.



THE CLIFF HOUSE.



OVERLOOKING THE GOLDEN GATE.

A Blessing.

Nothing adds more to the security of life, of happiness, and of health, than a safe and reliable family medicine. S. L. R. has won for itself the appellation of "the family blessing." If a child has the Colic, it is sure, safe and pleasant. If the father is exhausted, overworked, debilitated, it will restore his failing strength. If the wife suffers from Dyspepsia, Low Spirits, Headache, it will give relief. If any member of the family has eaten anything hard to digest, a dose of the Regulator will soon establish good digestion. It gives refreshing sleep even in cases where narcotics have failed. It is a preventive, perfectly harmless, to begin with, no matter what the attack, it will afford relief. No error to be feared in administering; no injury from exposure after taking; no change of diet required; no neglect of duties or loss of time. Simmons Liver Regulator is entirely vegetable and is the purest and best family medicine compounded. J. H. Zeilin & Co., Philadelphia, Pa., sole proprietors.

ORANGE CULTURE A practical treatise by T. A. GAREY, giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F.

Rural Seed Offering—1886.

Great Inducements for New Subscriptions.

To encourage gardening and further extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers the following seeds on the favorable terms named below:

VEGETABLE SEEDS.

83 Varieties.

In Papers, postpaid. Cts

BEET.
1 Early Blood Turnip... 10
2 Early Extra Bassano.. 10
3 White Sugar..... 10
4 Yellow Sugar..... 10
5 Early Long Dark Blo'd 10

CABBAGE.
6 Early York..... 5
7 Early Dutch..... 10
8 Early Wakefield..... 10
9 Ex'a Fine Large Dutch 10
10 Early French Oxheart. 10
11 Large Late Drumhead 10
12 Red Dutch (pickling).. 10

CELERY.
13 White Solid..... 10

CAULIFLOWER.
14 Early Paris..... 10

CARROT.
15 Extra Early Forcing.. 10
16 Long Orange..... 10
17 Early Horn..... 5
18 White Belgian..... 5

CUCUMBER.
19 White Spine..... 10
20 Early Cluster..... 10
21 Early Frame..... 5
22 Long Green..... 5
23 Eng. Gherkin, Pickles. 10

LETTUCE.
24 Early Curled Silesia... 10
25 Ice Drumhead 5
26 Simpson's Early Curl'd 10
27 Prize Head..... 10
28 White Paris Cas..... 10
29 Hanson..... 10
30 Boston Market..... 10

MELONS.
31 Large Yel. Canteloupe 10
32 Extra Fine Nutmeg... 10
33 Casaba (new)..... 10
34 Cuban Queen W'melon 10
35 Mt. Sweet Watermelon 10
36 Iron Clad Watermelon 10
37 Scaly Bark do..... 10
8 Black Spanish do..... 10
39 White Imp. or Lodi do 10

ONION.
40 Early Red..... 10
41 Red Wethersfield..... 10
42 Yellow Danvers..... 10
44 W. Por'gal or Sil. Skin 10

PARSNIP.
45 White Dutch..... 5
46 New Early Round..... 10

RADISH.
47 Mammoth California.. 10
48 Olive Shaped Radish.. 10
49 Ea'ly Scarlet Turnip.. 5
50 Bl'k Spanish or Wint'r 10

SQUASH.
51 Early Scollop Bush.... 5
52 Early Sum. cr'k Neck. 5
53 California Field..... 10
54 Marblehead..... 10
55 Boston Marrow Wint'r 10
56 New Hubbard Winter. 10

TOMATO.
57 Large Yellow..... 10
58 The Conqueror..... 10
59 Early Red Smooth.... 10
60 Trophy..... 10
61 Canada Victor (earli'st) 10
62 Acme..... 10

TURNIP.
63 Cow Horn..... 10
64 Yel. Rutab'a or Sw'd'h 10
65 Early Wh'e Flat Dutch 5
66 Long White French.... 10
67 Imp. Late Rutabaga.. 5

SPINACH.
68 Round Leaf..... 10
69 Large Flanders..... 10

PEAS.
70 Extra Early..... 10
71 Champion of England 10
72 Yorkshire Hero..... 10
73 Queen of Dwarfs..... 10

BEANS.
82 Black German Wax... 10
83 Refugee..... 10
84 Red Valentine..... 10

MISCELLANEOUS.
74 Kohlrabi..... 10
75 Scotch Kale..... 10
76 Curled Parsley 5
77 Sage..... 10
78 Thyme..... 10
79 Tobacco..... 25
80 Blue Gum 25
81 Monterey Cypress..... 25

FLOWER SEEDS.

107 Varieties.

85 Acroclinium..... 5
86 Alonsoa, Grandiflora.. 5
87 Alyssum, Sweet..... 10
88 Amaranthus Abyssin's 15
89 Ageratum Lasseauxii. 10
90 Adlumia Cirrhosa. ... 10
91 Ambronia Umbollata.. 10
92 Amaranthus Caudatus (Love-lies-bleeding).. 5
93 Antirrhinum Majus, finest mixed..... 5
94 Cacalia Coccinea (Tassel flower)..... 10
95 Campanula Speculum, (Venus' L'king Glass) 5
96 Candytuft, white frag't 5
97 CentaureaCynus(Bachelor's Button)..... 5
98 Clarkia, fine mixed.... 5
99 Convolvulus (Morning Glory) mixed..... 5
100 Foxglove, mixed..... 5
101 Gilia, mixed..... 5
102 Globe Amaranthus.... 5
103 Gypsophila Elegans... 5
104 Ice Plant..... 5
105 Larkspur, finest mixed 5
106 Linum Grandiff'a(Flax) 5
107 Love-in-a-mist..... 5
108 Marigold, db l French. 5
109 Marigold, African, dbl. 5
110 Mignonette, Sweet.... 5
111 Nasturtium..... 5
112 Nolana..... 5
113 Portulaca, mixed..... 5
114 Poppy, Double, mixed. 5
115 Rocket, Sweet..... 5
116 Scabiosa, Dw'f, mixed. 5
117 Sensitive Plant..... 5
118 Sweet Pea, White..... 5
119 Sweet Pea, Crimson, Everlasting..... 10
120 Sweet Peas, mixed.... 5
121 Sweet William, mixed 5
122 Sunflower, Cal., Dbl'e. 5
123 Adlumia Cirrhosa (Mountain Fringe).. 10
124 Althea (Hollyhock) fine mixed..... 10
125 Aster, China, mixed... 10
126 Australian Vine..... 10
127 Balsam (Lady Slipper) fine mixed..... 10
128 Bals'm, Fine Paris, dbl 15
129 Balsam, Splendid, dbl. 10
130 Balsam, Dwarf, double 25
131 Balsam, Rose Fl'd, dbl 15
132 Balloon Vine..... 10
133 Browallia Grandiflora. 10
134 Canna (Indian Shot).. 10
135 Canna, fine mixed var. 10
136 Celosia Cristata Varie'a 10
137 Celosia Cristata Purpurea..... 10
138 Clematis Flammula... 15
139 Dahlia Superflua, mxd 25
140 Dianthus Chinensis (Indian Pink)..... 10
141 Dianthus Chinensis Double White..... 10
142 Celosia Cristata, fine mixed (Coxcomb).... 10
143 Chrysanth'um Album. 10
144 Datura, fine mixed.... 10
145 Evening Primrose..... 10
146 Four O'Clock, mixed.. 10
147 Forget-me-not..... 10
148 Geranium Zonale..... 10
149 Geranium, fancy colored leaves..... 25
150 Godetia (The Bride)... 10
151 Gourds (Hercules' lub) 10
152 Ipomœa (Cypress Vine) 10
153 Indian Pink, dbl., mxd 10
154 Lobelia, Crystal Palace Compacta..... 25
155 Lobelia, Blue..... 10
156 Musk Plant..... 10
157 Nierembergia Gracilis. 10
158 Pansy, fine mixed..... 10
159 Petunia, mixed..... 10
160 Phlox Drummondii, fine mixed..... 10
161 Pyrethrum Aureum (Golden Feather).... 10
162 Salpiglosis mixed..... 10
163 Stock (Ten Week)..... 10
164 Wallflower, fine mixed 10
165 Wallflower, purple..... 10
166 Zinnia, mixed fine..... 10
167 Zinnia, Scarlet, dbl.... 10
168 Belles Perennis (Daisy) single..... 15
169 Campanula Medium (Canterbury Belle).. 15
170 Canary Bird Flower... 15
171 Thunbergia, mixed.... 15
172 Aquilegia Alpina (Columbine)..... 20
173 Heliotropium, fine mxd 20
174 Heliotrop'm, dark, mxd 20
175 Verbena, choice, mx'd. 20
176 Violet, Blue..... 20
177 Balsam Camelia, flow'd 20
178 Carnation, fine mixed. 25
179 Digitalis..... 5
180 Dolichos (Hyac'th Bean) 10
181 Gaillardia Grandiflora Hybridia..... 10
182 Nemophila, fine mixed 10
183 Perillia Nankineusis.. 5
184 Saponaria Multiflora.. 5
185 Scabiosa Atropurpuria 10
186 ScarletRunners(Climbers)..... 5
187 Schizanthus (Hardy Annuals)..... 5
188 Schizanthus, finest mixed colors..... 5
189 Myrsiphylium Asparagoides (Smilax)..... 25

☞ *Refer to Nos. in latest issue when ordering.*

For $1.00 we will furnish new subscribers the PACIFIC RURAL PRESS for three months, and $1.00 worth of the above seeds. For $1.75 the RURAL six months and $1.00 worth of seeds. For $3.25 the RURAL one year, and $1 worth of seeds. For $4.50 the RURAL for eighteen months and $1 in seeds. The seeds will be carefully forwarded, post paid, from some one or more of our leading and reliable seedsmen, whose name will accompany the package. In ordering, write on a separate sheet the *number only* of each article wanted as numbered, together with your address.

Old subscribers can advance payment so that their subscriptions will be paid the same length of time in advance and receive the same terms as above. Those who have remitted since this offer was made can send the additional amount which would have entitled them to a premium, and receive the same by stating which numbers they prefer.

For other kinds of seeds, or for seeds in larger packages, patrons are referred to reliable seedsmen advertising in this paper. We wish to aid in increasing the planting and cultivation of gardens.

We are not going to embark in the regular seed business, and have not time to investigate or answer many questions of private interest only, nor respond to orders received without remittances.

Subscribers will please notify neighbors who do not take this paper of this offer, and the merits of the RURAL.

In writing correspondence, items of information, or on other business, please use a separate sheet.

FLAX-GROWING IN CALIFORNIA.—The Ventura *Free Press* says: "About 2000 acres of flax have been sown in this county this year, and we hear the most favorable accounts of it. As this is a cash crop, and worth four times as much as barley, and takes no more work, is hardier, without risk from insect, rust or disease of any kind, it is a most desirable industry for our county."

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas and Plymouth Rocks. No fowls for sale. Eggs from first-class stock, after Nov. 1st.

O. J. ALBEE, Santa Clara, has the finest fowls this season he has ever raised. Parties needing new blood will do well to write him before buying. Prices to suit the times.

H. J. GODFREY, San Leandro, Cal., first-class P. Rocks and Wyandotte eggs, $2 per setting; no circulars

PABLO POULTRY YARDS, San Diego, Cal. Large establishment. Send for catalogue.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

T. D. MORRIS, Sonoma, Cal. Toulouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

J. N. LUND, Box 116, Oakland, Cal. Wyandottes, Langshans, L. Brahmas, P. Rocks, B. Leghorns, B. B. R. Game Bantams, T. Guineas, Hom'g Antwerp Pigeons.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

HORSES AND CATTLE.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

Estate of M. E. BRADLEY, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

E. J. TURNER, Hollister, Breeder of Percheron-Norman registered Horses and Roadsters.

E W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

THE BEST HERD OF JERSEYS, all A. J. C. C. registered, is owned by Henry Pierce, San Francisco.

P. H. MURPHY, Brighton, Perkins P. O., breeder of Shorthorn Durhams, and Poland-China Hogs.

ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

STINSON & MARSH, Dayton, Nevada. Registered Shorthorns of choice breeding strains.

T. P. A. WILLIAMS, Columbia, Boone Co., Mo., breeder and importer of Thoroughbred Herefords.

LEONARD BROS., Mt. Leonard, Mo., importers and breeders of Galloway, Aberdeen-Angus and Shorthorn cattle.

HYDE & MOORE, Visalia, importers and breeders of Shorthorn cattle. Young stock for sale.

SHEEP AND GOATS.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine; high graded rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

E. W. WOOLSEY & SON, Fulton, Sonoma Co., imp'rs & b'ders Thoroughbred Merino, & Jersey Cattle.

E. TON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

T. H. HARLAN, Williams, Colusa Co., breeder pure blooded Angora goats, & Merinos; young stock for sale.

SWINE.

L. L. DICKINSON, Lone Oak Farm, Sonora, Tuolumne Co., Cal., breeder of thoroughbred Essex Hogs. Pigs now ready for sale. Prices reasonable.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

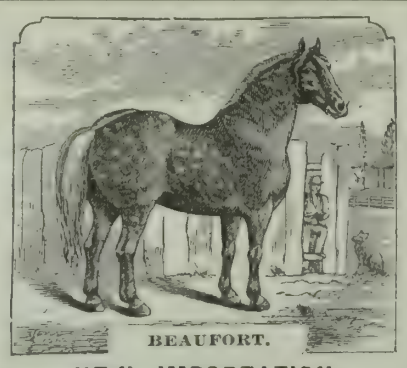
REGISTERED BERKSHIRES, BLACK JACK, BESS and REDWOOD; imported strains; pairs and trios, not akin, at farmers' prices. Young boars, low. F. H. Burke, 401 Montgomery St. S.F.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free

JOHN RIDER, Sacramento, Cal. Breeder of Thoroughbred Berkshire Swine. My stock of Hogs are all recorded in the American Berkshire Record.

W. D. RUCKER, Santa Clara, breeder of registered improved Poland-China Swine. Pigs for sale.

HORSES AND CATTLE.



BEAUFORT.

NEW IMPORTATION

—OF—

NORMAN STALLIONS.

Theodore Skillman has just arrived from France with the choicest importation of Norman Stallions that has ever reached the Pacific Coast. Mr. Skillman has selected these horses from the best in France, with a view to the improvement of draft horses on this Coast. They are young and sure to suit the tastes of intending purchasers as regards color, etc, a number being coal-black. He has also on hand some Imported French Coach Stallions. These horses are now very popular in the East and have long been the favorite carriage horses of France. Their merits speak for themselves. Come and inspect this rare collection of horses and be convinced that they are the best ever seen on this Coast.

☞Catalogue for 1887 sent free on application.

FRENCH DRAFT STALLIONS,

Kentucky Jacks and Jennets, Work Horses and Mules

FOR SALE.

Some of the Stallions were imported from Europe, others from Illinois, and some young ones were bred in California from imported stock. The prices will be less than animals of **equal value** can be purchased elsewhere.

Call at or address Patterson's Ranch, Hueneme, Ventura County, or Patterson's Ranch, Grayson, Stanislaus County, or for further information call on or address JAMES M. PATTERSON, No. 8 Davis St., San Francisco.

JOHN D. PATTERSON.

HOLSTEIN BULLS FOR SALE.

Four registered pure-bred Holstein Bulls. Sired by the well-known bull, Nero, 2209, H. H. B. Will sell cheap. For further particulars apply to

H. P. MOHR,
Mt. Eden, Alameda Co., Cal,

RED POLLED CATTLE.

For Milk, Butter and Beef; of a beautiful red color; no horns for mischief; just the Cattle for the Farm, the Dairy and the Family.

Imported, bred and for sale by

L. F. ROSS,
Send for Catalogue. Iowa City, Iowa.

BADEN FARM HERD

Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to

ROBERT ASHBURNER,
Baden Station, - San Mateo Co., Cal.



HENLEY'S IMPROVED MONARCH FENCE MACHINE.

Patented July 21, 1885, May 18, 1886, August 3, 1886. The only practical machine in use that makes the fence in the field wherever wanted; makes the best, strongest, and most durable fence for general use and farm and stock purposes; weaves any size picket and any size wire. The fence will turn all stock without injury to same. For catalogue and full particulars, address

M. C. HENLEY, Sole Manufacturer.

Factory, 523 to 533 North 16th St., Richmond, Ind.

IMPORTANT!

That the public should know that for the past **Sixteen Years** our **Sole Business** has been, and now is, importing **(Over 100 Carloads)** and breeding improved Live Stock—Horses, Jacks, Short Horns, Ayrshires, and Jerseys (or Alderneys) and their grades; also, **all the varieties** of breeding Sheep and Hogs. We can supply any and all good animals that may be wanted, and at **very reasonable prices** and on **convenient terms.** Write or call on us. PETER SAXE and HOMER P. SAXE.

San Francisco, Cal., Oct. 22, 1886. **PETER SAXE & SON, Lick House, S. F.**

HEADQUARTERS FOR THOROUGHBRED POULTRY and EGGS.



CALIFORNIA POULTRY FARM,

STOCKTON, CAL.

L. H. CUTTING, - - - Sole Proprietor,

IMPORTER, BREEDER, AND SHIPPER OF THE

FINEST STRAINS OF STANDARD FOWLS.



EGGS AND FOWLS FOR SALE. Eggs packed to ship any distance, **and a fair hatch guaranteed.** Proprietor and manufacturer of the **Oriental Egg Producing Food, and dealer in Poultry Supplies.** Send for my Illustrated and Descriptive Catalogue, free. Send for one Address,

Farm located at French Camp, San Joaquin Co **L. H. CUTTING, P. O Box 7, Stockton, Cal.**

☞I exhibited 13 varieties at the last Poultry Show at San Francisco, winning 8 first premiums, 3 seconds, 4 thirds and 3 specials, which is the best record of any exhibitor showing as many varieties.



Headquarters for all Varieties of FANCY CHICKENS,

DUCKS, TURKEYS, GEESE, PEACOCKS, Etc.

EGGS FOR HATCHING



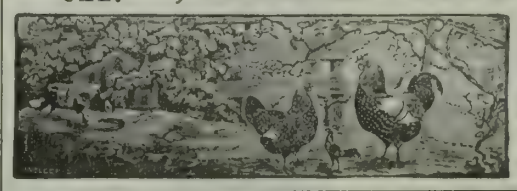
Publisher of **"Niles' Pacific Coast Poultry and Stock Book,"** a new book on subjects connected with successful poultry and stock raising on the Pacific Coast. Price, 50 cents, post-paid. Inclose stamp for information.

ALSO BREEDER OF

Jersey & Holstein Cattle, and Hogs.

Address, WILLIAM NILES, Los Angeles, Cal.

MARTINEZ, CAL. } **ALHAMBRA POULTRY YARDS** { JASPER J. JONES Proprietor.



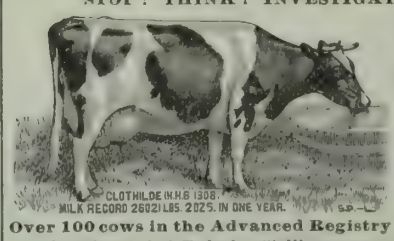
—BREEDER OF—

HIGH-CLASS POULTRY.

Clean sweep on Plymouth Rock Chicks at Great California Poultry Show at San Francisco, Jan. 11th to 16th, 1886. The Best is the Cheapest. Illustrated Catalogue sent free on application; worth $1 to any breeder of poultry. Send me your name on a Postal Card; 5000 copies of fine Illustrated Catalogue for free distribution.

HOLSTEIN-FRIESIANS.

STOP! THINK! INVESTIGATE! LAKESIDE STOCK FARM HAS



The only Cow that has given 26,021 lbs. 2 ozs. of milk in a year.
The only four-year-old that has given 23,602 lbs. 10 ozs. in a year.
The only two-year-old that has given 18,484 lbs. 13 ozs. in a year
The only herd of mature cows that has averaged 17,166 lbs. 1 oz. in a year.
The only herd of two-year-olds that has averaged 12,465 lbs. 7 ozs. in a year.
The only two-year-old Holstein-Friesian that has made 21 lbs. 10¾ ozs. of butter in a week.
Thirty-one cows in this herd have averaged 20 lbs. 1 oz. of butter in a week
Fourteen cows in this herd have averaged 22 lbs. 1 oz. of butter in a week.

Over 100 cows in the Advanced Registry

Also a fine stud of Clydesdale Stallions, mares and fillies, and choice standard-bred Hambletonian stallions. Send for Catalogue giving full records and pedigrees. In writing, always mention RURAL PRESS.

SMITHS, POWELL & LAMB, Syracuse, New York.

AN INCUBATOR FRAUD!

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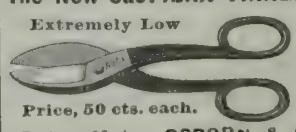
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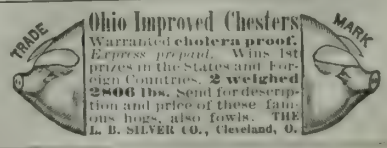


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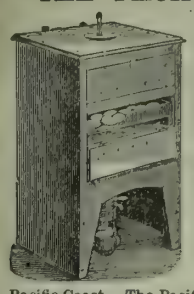
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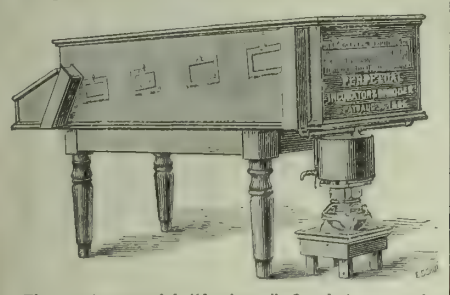


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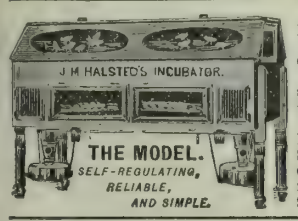
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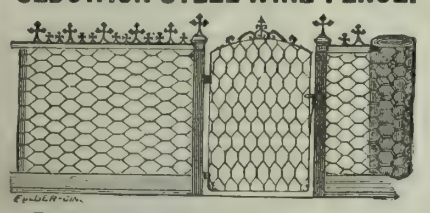
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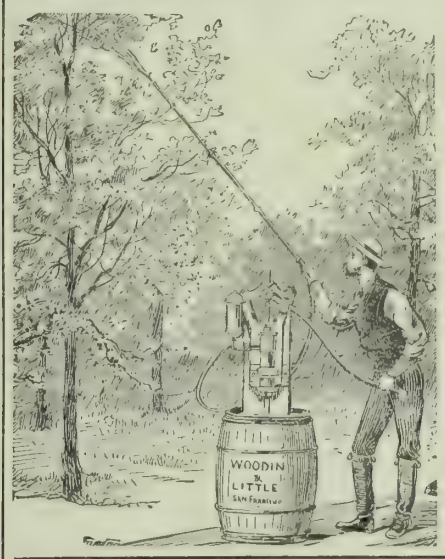
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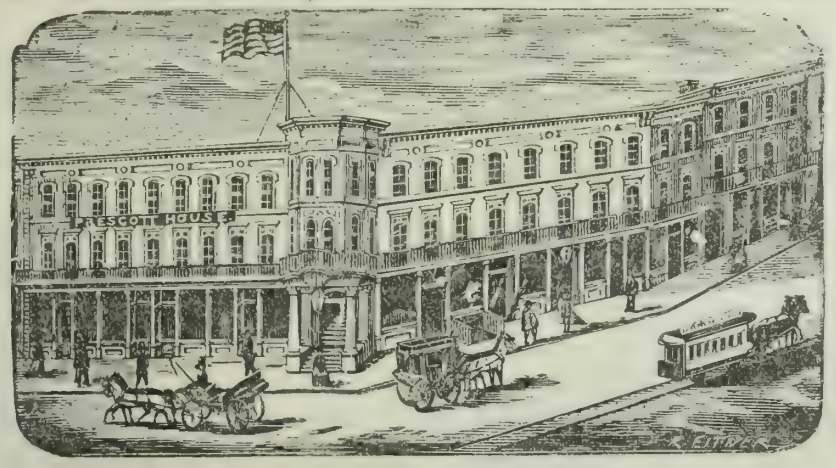
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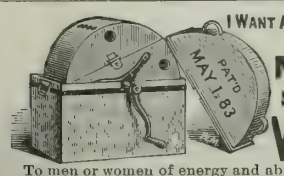
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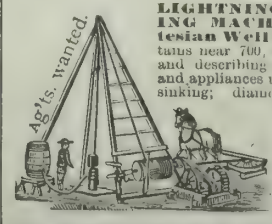
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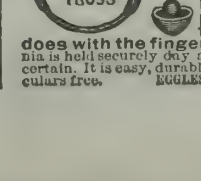


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S. F. MARKET REPORT

NOTE. Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 19, 1887.

The past week was characterized by quite a move in cereals, owing to the dry weather up to Tuesday, when rains were reported in the interior, followed by a heavy rainfall here, but clearing skies to-day create a stronger feeling in futures. The European wheat market has shown few changes the past week. To-day's market is as follows:

SAN FRANCISCO, Jan. 19.—Cargoes off coast, slow; cargoes on passage and for shipment, weaker; Mark Lane, steady; Cal. wheat off coast, 37s 6d; Cal. wheat just shipped, 38s 6d; Cal. wheat nearly due, 37s 6d; English country market, quiet; French country market, stiff; Liverpool wheat, spot, downward tendency. Liverpool wheat, Cal. 7s 5½d to 7s 8½d; weather in England, mild.

Foreign Review.

LONDON, Jan. 17.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: The demand for English wheat has slackened, and the deliveries in London have been small. Values are, however, supported, as sellers are holding firmly to their prices. The weather deteriorates the condition of grain deliveries in the provincial markets and causes a decline of from 6d to 1s. The sales of English wheat during the week were 45 832 quarters at 36s 3d, against 57,659 quarters at 29s 1d during the corresponding period last year. Flour is steady. It is expected that there will be an immediate and material increase in the demand for flour, owing to the bad state of the potato crop in store and the immense destruction of vegetables by frosts. Oats are in steady demand, though values are lower. Barley is firm. The trade in foreign wheat is slow, and prices are in favor of the buyers. American brands of flour are selling at 6d lower in London and 8d lower in Liverpool.

New York Wheat Market.

NEW YORK, Jan. 16.—Wheat—Spot has been fairly active during the week, and there has been a fair inquiry from both millers and shippers, but at lower prices, and since Wednesday the market has been dull and weak. Options have been irregular, with moderate trading. The market ended firm at the best figures of the week; January, 92⅛c; February, 92⅞c; March, 94c; April, 95¾c; May, 96⅝c; June, 97⅜c; July, 97⅞c; and August, 98c.

London Wool Market.

LONDON, Jan. 18.—Since the last sales, a good demand for wool has been maintained, which is chiefly attributed to an improved French trade. Four thousand bales have been sold at an advance of from 5 to 10 per cent over the lowest prices of December last. This, with the light stocks in most of the markets, brightens the prospect for the sales which will commence on January 25. The following are the arrivals: New South Wales, 34,245 bales; Queensland, 106,493; Victoria, 58,226; Tasmania, 61; South Australia, 18,249; Swan river, 787; New Zealand, 11,507; Cape of Good Hope and Natal, 39,142 bales. The wool sales at Antwerp opened last evening. There was a large attendance and the bidding was brisk. The prices there recovered 15 per cent on those of last December.

Eastern Wool Markets.

NEW YORK, Jan. 16.—The market remains about the same of late. Possibly fine wools are under neglect, but low and medium grades are in favor, and there has been a particularly good demand for combing, pulled, with business restricted by the paucity of supply. Among sales were 11,000 pounds scoured California at 54@65c; 50,000 pounds Eastern Oregon at 23c; 35,000 pounds fine Montana at 23c; 3000 Territory at 23@25c; 10,000 pounds of fine delaine at 38½c; 35,000 pounds medium, unwashed fleeces, at 29@30c. The Philadelphia market retains an improved tone, but no decided activity in demand, except for quarter and medium wools. Among sales were 10,000 lbs scoured California at 62c; 1000 pounds scoured New Mexican at 32c; 3000 pounds Territory fine at 23c, and 5000 pounds Territory fine at 22c. The Boston market has taken a start, the demand last week being quite active, and dealers are firm for full values on all desirable grades. Among sales were 531,000 pounds Territory at 18@26½c; 90,000 pounds Oregon at 16@24c.

New York Hop Market.

NEW YORK, Jan. 16.—For fine quality goods, the foreign and domestic market is fairly steady. Good, useful hops seem to be as cheap as at any time within the past six weeks. Arrivals, while falling off somewhat, are still sufficient to keep competition rather keen. The top figures on best qualities are 23@25c for new Pacifics, 25@27c for Germans, and 12@13c for 1885 States. The bulk of the business is in grades that may be had 1@2c under the inside figures named.

Dried and Canned Fruit at the East.

CHICAGO, Jan. 15.—The dry fruit market is rather quiet. The stormy weather has a tendency to restrict communication with the country and made orders a little light. Jobbers also took in moderate stocks at the close of last year. This, and being busy the first of the year taking inventories and closing up business, has kept them off the market to some extent. Sales of fruit can, however, be made by going on the market and offering goods for sale. This is not being done, for the supply is generally small and the present quietness is regarded as only temporary. Although the market rules quiet, a steady feeling continues and prices hold their own. California dried fruits—prunes, French, per lb, 8½@11¼c; plums, pitted, per lb, 11@13c; peaches, halves, per lb, 12@14c; peaches, halves, pared, per lb, 20@21c; nectarines, per lb, 9c; pears, per lb, 8@12c; raisins, London layers, 20-lb boxes, per box, $1.55@1.60; loose Muscatels, per box, $1.35@1.40.

NEW YORK, Jan. 16.—The prices of California fruits are rather high. California winter Nelis are $1 a dozen. Selected Duchess run as high as $2. Raisins—Malagas are quiet, and Californias are selling somewhat better. Valencia, steady and in demand; two-crown loose Muscatel, $1,40@1.45; London layers, $1.90@1.95; California, loose, $1.55@1.90; do Londons, $1.70@2. Prunes—Liberal purchases of Turkish have been made on speculative account and with the supply of spot closely bought up, prices have rapidly advanced, the last sale being reported at 5¾c, and the market closed with 6c bid, with no sellers; French, firmer—sales, 1000 boxes 60's and 90's at 8. Currants are in fair jobbing request, and firm at 4⅞@5c. Citron is quoted at 17c. Figs sell slowly at 6½@12c. The canned goods trade is beginning to show some improvement, the small dealers offering more attention, and jobbers are in the market for large quantities. Tomatoes are wanted, but supplies are under good control, and are held at $1.02½@1.05 for three-pound cans.

California Products in New York.

NEW YORK, Jan. 16.—Seeds—California yellow mustard, 3¼@4½c.

California Raisins in Philadelphia.

EDITORS PRESS:—January is a dull month in such staples as raisins, because dealers are reluctant to commence new operations until the old year's business is squared up, and therefore there will be little natural movement and no regular resumption of business before February. The few holders here have been making no effort to urge the business; but some Western operators, principally in Chicago, have set to working their stock here, and this only has created an unsettled feeling for the time. They offer Fresno brands delivered here at $1.40 for two-crown, $1.50 for three-crown, and $1.80 for Londons; such goods as would under usual conditions find quick buyers at higher prices. If Chicago holders press sales here at such remarkable concessions we cannot regulate prices on the fair basis of supply and demand, and the suffering California shipper should know the reason.

Phila., Jan. 11. PANCOAST & GRIFFITHS.

Local Markets.

WHEAT—Exporters are continuous in their efforts to break prices, but so far without avail, owing to stocks being well held. The dry weather up to Tuesday aided the market, and admitted of higher prices, but cloudy and rainy weather on Tuesday caused the bear element to short the market only to create a higher range under strong buying, with clearer skies to-day. On Call, transactions were very heavy throughout the week. To-day's sales were as follows:

Morning Session: Buyer season—200 tons, $1.66⅜; 200, $1.66¼; 100, $1.66¾; 500, $1.67; 500, $1.67¼; 100, $1.67⅜; 3600, $1.67½; 2700, $1.67⅝; 1200, $1.67¾; 1200, $1.67⅞ ₩ ctl. Afternoon session: Buyer season—8100 tons, $1.67¾; 1100, $1.67⅝; 200, $1.67½; 2100, $1.67⅞ ₩ ctl.

BARLEY—The market held strong up to Tuesday, when, under a strong bear selling, prices dropped off, only to recover to-day under heavy buying orders. On Call, transactions were unusually heavy throughout the week, with some sharp fluctuations. To-day's sales were as follows:

Morning Session: Buyer season—100 tons, $1.17¾; 300, $1.18; 1000, $1.18⅛; 2000, $1.18¼; 300, $1.18⅜; 1700, $1.18½; 100, $1.18⅝; 1300, $1.18¾; 200, $1.18⅞. Seller season—200 tons, $1.09 ₩ ctl. Afternoon session: Buyer season—100 tons, $1.17½; 1200, $1.17¾; 1100, $1.17⅞; 100, $1.18. Seller season—200, $1.09; 500, $1.08½; 500, $1.08¾; 100, $1.08; 100, $1.07⅞; 500, $1.07¾; 200, $1.07⅝; 600, $1.07½; 200, $1.07⅜. No. 1 Brewing, buyer season—200 tons, $1.27½; 100, $1.27¼ ₩ ctl.

BUTTER—Owing to a continued selling pressure from holders of pickled butter, prices are low, with the market weak and easy for all kinds. The demand is good, but the supply is too heavy.

EGGS—Lessening receipts of Eastern create a steadier, firmer tone, but it is difficult to get 30 cts per pound for gilt-edged, even by the single box.

CHEESE—The market continues strong, under light supplies and a steady demand. Choice is very hard to find, consequently the market is being cleaned up on all kinds.

BAGS—Continued dry, cold weather creates an inactive market, with a weak feeling for futures, notwithstanding our market is below the parity of the Calcutta market for standard.

FLOUR—The market gains strength in sympathy with the high cost of wheat. Millers claim that the higher cost of wheat shuts off much of their export trade. The home demand is fully up to former seasons at this date.

[COMMUNICATED.]

Market Information.

Cereals.

The barley market ruled very strong and excited at sharp advances up to Monday, when an easier tone set in, resulting in lower prices yesterday by reason of rainy weather. Although the market is lower and easy, yet it is claimed that the pool which has been running the corner is well organized, and if they succeed in getting a large line of shorts a much higher range of prices will be witnessed before April next. The consumption is very large, while the warehouse stocks do not show any increase, but on the contrary are growing lighter quite rapidly.

Oats continue scarce, causing full prices to be paid. Nebraska oats are coming to hand, but the quality not being up to Pacific Coast oats they sell at a lower range.

California corn appears to have a steadier tone, owing to a lessened selling pressure and an improved demand. Western corn to arrive is firmly held, with much difficulty met in buying even at $1 per ctl for the carload to arrive.

Rye is more or less neglected, but buckwheat moves off fairly well.

Fruits.

Choice apples continue to hold to strong prices, but common favor buyers.

Under lighter receipts and a good demand, oranges were advanced, and at the close are steady. Limes and lemons are slow and weak.

Dried fruits hold strong, with the more choice wanted for shipping East.

Raisins are dull for home trade, but the better grades are in good request for shipping to the East.

The local wheat market can, with safety, be affirmed to be cornered, if the high prices ruling on Call are to be taken as a criterion. Many operators who were long on the market last week sold for a turn, but have, up to this writing, been unable to buy back, except at higher prices. Many shorts were filled at a heavy loss. The cold, dry weather aided bulls not a little in putting up prices, for large holders in the interior are slow to let go until better assurance of a large crop this year is had than now manifests itself. Take the State as a whole and our advices are favorable for early sown grain, which has rooted well, and promises, with well-distributed rains in February, March, and April, to turn out a large yield. Land seeded to grain during the dry spell requires more rain, as the plant, so far as we are advised, has not shown itself above ground. Oregon, Washington Territory, and Idaho Territory advices report the outlook for a crop above an average, as of the best. The acreage seeded is above an average, while the rains have been well distributed. Eastern advices report that the outlook for winter-sown wheat in the Northwest, West, and Southwest is good, and without some unforeseen event will give a yield to the acre fully up to the average of seasons. The European markets, as usually obtains in January, are more or less lifeless, but cables state that holders of wheat who are not financially pressed are not offering on the market, believing that higher prices will rule later on. This view they base on the statistical situation of wheat, and also to the general outlook of crops the world over, not warranting the belief that returns usually made in March and April will be favorable for over average crops. The crop returns made in the months of March and April control, to a very great extent, the values for the next incoming harvest.

Feedstuffs.

Hay ruled exceedingly strong and in good demand up to Tuesday, when light rains caused dealers to bid down, but up to this writing no concessions were made. Choice to extra choice hay is in light supply.

Ground barley is strong at the advance, as are middlings. Bran and oilcake meal are unchanged, as are feed carrots.

Live-Stock.

The past week did not bring any change in the situation for beef cattle, although at the close a steadier feeling manifests itself. The offerings have been in excess of the consumption, causing slaughterers to virtually dictate prices. In mutton sheep there is less offering, which produces a firmer tone. In hogs there is a better tone at higher prices. Horses are essentially unchanged. The prevailing opinion is that all kinds of horses will be in better request the coming spring and summer.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 3¼ to 3¾c for heavy and medium; hard dressed, 5¾ to 7c per lb; light, 3 to 3¾c; dressed, 5 to 6c; soft hogs, live, 2 to 2¾c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Potatoes are very strong for the better varieties. Early Rose are in more liberal supply, with some shading in prices. Sweet potatoes have a wide range, owing to the difference in the quality.

Tomatoes, from Los Angeles, are offering in the market at from $1.50 to $2 per box, according to quality.

Sweet peas, from Los Angeles, are in the market, and, as usual, command fancy prices; the range being from 8 to 10 cts per pound.

The shipping demand for cabbages is reported to be quite active, but is met without creating a higher range of values.

Onions are in fair supply, with the more choice wanted at full prices. Cut onions are slow.

Dried peppers and dried okra are steady.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	208,807	147,796
In port, disengaged	83,776	108,912
In port, engaged	35 728	54.756
Totals	328,311	311,464

The above gives a carrying capacity, as follows: 1887, 525,297 short tons; 1886, 498,342 short tons; increase over last year, 26,955.

Hops, as usual at this season of the year, are dull and inactive. It is claimed that quite an active demand will set in after next month.

In wool, trading continues light, owing to poor grades constituting the bulk of the stock on hand, but holders even of defective wools express confidence.

In seeds there is very little doing.

Choice beans, both colored and white, rule strong. Poorer grades are slow, yet holders only make concessions to either close out a consignment or to save cost.

San Francisco, Jan. 19, 1887.

A Great Offer.

No matter in what part you live, you had better write to Hallett & Co., Portland, Maine, without delay; they will send you free information about work that you can do and live at home, at a profit of from $5 to $25 and upward daily. A number have earned over $50 in a day. Both sexes. All ages. You are started in business free. Capital not needed. Every worker who takes hold at once is absolutely sure of a snug little fortune. Now is the time.

A WORD ABOUT CALENDARS.—There are calendars and calendars, big and little, good, bad and indifferent, useful and ornamental, high-priced, low-priced, and no price at all. But for a substantial, practical calendar, especially suitable for business offices, etc., with figures that can be read across a large room, and that will hang on the wall in good shape from January to December, few will mind paying 25 cents. This just about covers cost and postage for the one issued by N. W. Ayer & Son, Newspaper Advertising Agents, Times Building, Philadelphia.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Jan. 19, 1887.

BEANS AND PEAS.				Peanuts		4½@ —
Bayo, ctl	1 40	@ 1 55		Filberts		10 @ 11
Butter	1 25	@ 1 85		**POTATOES.**		
Pea	1 60	@ 1 70		Burbank	1 20	@ 1 70
Red	1 25	@ 1 40		Early Rose	90	@ 1 10
Pink	1 25	@ 1 40		Cuffey Cove	1 10	@ 1 45
Large White	1 60	@ —		Jersey Blues	1 10	@ 1 50
Small White	1 60	@ 1 70		Petaluma	—	@ —
Lima	2 00	@ 2 45		Tomales	1 00	@ 1 40
Eld Peas, blk eye	1 00	@ 1 05		River reds	1 00	@ 1 15
do green	1 00	@ 1 12½		Humboldt	—	@ —
do Niles	1 25	@ —		do Kidney	—	@ —
BROOM CORN.				Chile	—	@ —
Southern per ton	50	@ 75		do Oregon	1 20	@ 1 50
Northern per ton	50	@ 75		Peerless	1 25	@ 1 75
CHICORY.				Salt Lake	—	@ —
California	4	@ 4½		Sweet	1½	@ 2
German	6½	@ 7		**POULTRY AND GAME**		
DAIRY PRODUCE, ETC.				Hens, doz	6 00	@ 7 50
BUTTER.				Roosters	6 00	@ 7 50
Cal. fresh roll, lb	20	@ 25		Broilers	4 00	@ 6 00
do Fancy brands	26	@ —		Ducks, tame	6 00	@ 9 00
Pickle roll	15	@ 17½		do Mallard	2 00	@ 3 50
Firkin, new	15	@ 18		do Sprig	1 00	@ 1 50
Eastern		@ —		Geese, pair	1 00	@ 2 00
CHEESE				do Goslings		@ —
Cheese, Cal., lb	13	@ 16		Wild Gray, doz	3 00	@ —
Eastern style	15	@ 17		Turkeys, lb	13	@ 15
EGGS.				do Dressed	14	@ 16
Cal., ranch, doz	25	@ 27		Turkey Feathers, tail and wing	10	@ 20
do, store	22½	@ 25		Snipe, Eng., doz	—	@ —
Ducks	—	@ —		do Common	—	@ —
Oregon	—	@ —		Doves	75	@ 85
Eastern	—	@ —		Quail	90	@ 1 00
Utah	—	@ —		Rabbits	1 00	@ 1 25
FEED.				Hare	1 50	@ 2 00
Bran, ton	15 50	@16 50		Venison	8	@ 10
Cornmeal	26 00	@27 00		**PROVISIONS.**		
Grd Barley ton	25 00	@26 00		Cal. Bacon, Heavy, lb	8½	@ 9
Hay	9 00	@14 50		Medium	8½	@ 9
Middlings	22 00	@23 00		Light	10½	@ 11½
Oil Cake Meal	26 50	@28 50		Extra Light	12	@ 12½
Straw, bale	35	@ 50		Lard	7	@ 9½
FLOUR				Cal. Smoked Beef	11½	@ 12½
Extra, City Mills	4 52½	@ 4 90		Hams, Cal	10	@ 12½
do Co'ntry Mills	4 35	@ 4 77½		do Eastern	13	@ 14
Superfine	3 35	@ 3 90		**SEEDS.**		
GRAIN, ETC.				Alfalfa	9	@ 10
Barley, feed, ctl	1 10	@ 1 20		Canary	3½	@ 4
do Brewing	1 15	@ 1 30		Clover red	12	@ 13
Chevalier	1 45	@ 1 60		White	17	@ 18
do Coast	90	@ 1 45		Cotton	20	@ —
Buckwheat	1 00	@ 1 20		Flaxseed	2½	@ 2½
Corn, White	1 05	@ 1 10		Hemp	4	@ 4½
Yellow	1 02½	@ 1 10		Italian Rye Grass	2½	@ —
Small Round	1 05	@ 1 15		Perennial	7	@ 9
Nebraska	1 00	@ 1 05		Millet, German	4½	@ 5
Oats, new	—	@ —		do Common	7	@ 10
Choice feed	1 55	@ 1 65		Mustard, white	3	@ 3½
do good	1 40	@ 1 50		Brown	2 25	@ 2 75
do fair	1 30	@ 1 37½		Rape	1	@ 1½
do black	1 40	@ 1 50		Rye Blue Grass	11	@ 13
do Oregon	1 30	@ 1 60		3d quality	11	@ 12
Rye	1 10	@ 1 25		Sweet V. Grass	75	@ —
Wheat milling, Gilt edged	1 65	@ 1 67½		Orchard	20	@ 25
do choice	1 60	@ —		Red Top	15	@ —
do fair to good	1 55	@ —		Hungarian	8	@ 10
Shipping choice	1 61½	@ —		Lawn	30	@ 40
do good	1 57½	@ 1 60		Mesquit	10	@ 12
do fair	1 50	@ 1 55		Timothy	5½	@ —
HIDES.				**TALLOW.**		
Dry	—	@ 16		Crude, lb	1½	@ 4
Wet salted	8	@ 9½		Refined	6½	@ 6½
HONEY, ETC.				**WOOL, ETC** SPRING—1886		
Beeswax, lb	20	@ 22		Humboldt and Mendocino	22	@ 25
Honey in comb, fancy	12	@ 13		Sacto valley	17	@ 20
Honey in comb, Extracted, light	4	@ 4½		Free Mountain	17	@ 20
do dark	3½	@ 4½		N'hern defective	—	@ —
HOPS				S. Joaquin short	14	@ 18
Oregon	20	@ 27½		do long	—	@ —
California	20	@ 27½		Carson & Truckee	—	@ —
ONIONS.				Oregon Eastern	17	@ 22
Pickling	—	@ —		do valley	23	@ 25
Silverskin	1 00	@ 1 90		Southern Coast	13	@ 17
NUTS—JOBBING.				FALL 1886		
Walnuts, Cal., lb	12½	@ 13½		Southern, free	17	@ 20
do Chile	—	@ —		do defective	12½	@ 19
Almonds, hd shl	6	@ 9		Northern, free	20	@ 23
Soft shell	15	@ 19		do defective	15	@ 20
Brazil	10	@ 11		Middle free	18	@ 21
Pecans	9	@ 11		do defective	15	@ 18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Jan. 19, 1887.

Apples, bx com	50	@ 1 10		Raspberries ch	—	@ —
do choice	1 25	@ 1 75		Strawberries ch	5 00	@ 6 00
Bananas, bunch	1 50	@ 3 00		Watermelons 100	—	@ —
Blackberries, ch	—	@ —		**DRIED FRUIT**		
Cantelloupes, cr	—	@ —		Apples, sliced, lb	5	@ 6½
Cherries blk	—	@ —		do evaporated	11	@ 12½
do Royal Ann	—	@ —		lo quartered	4	@ 5
Cherry plums	—	@ —		Apricots	13	@ 15
Crabapples	—	@ —		do evaporated	20	@ 22
Cranberries	10 00	@12 50		Blackberries	9	@ 11
Currants chest	—	@ —		Citron	28	@ 30
Figs, bx	—	@ —		Dates	9	@ 10
Grapes	1 00	@ 3 25		Figs, pressed	5	@ 6
do Rose Peru	—	@ —		Figs, loose	3	@ 4
do Muscat	—	@ —		Nectarines	8	@ 10
do Tokays	—	@ —		do evaporated	16	@ 18
Isabel	—	@ —		Peaches	8	@ 10
Wine, Zinfandel	—	@ —		do pared	18	@ 22
do Mission	—	@ —		Pears, sliced	5	@ 6
Limes, Mex	4 50	@ 6 —		do qrtd	4	@ 5
do Cal. box	50	@ 1 00		do evaporated	10	@ 13
Lemons, Cal., bx	1 00	@ 1 50		Plums, pitted	9	@ 10
do Sicily, box	2 00	@ 2 50		do unpitted	3	@ 4
do Australian	—	@ —		Prunes	6	@ 8
Nectarines box	—	@ —		do French	8	@ 10
Oranges, Com bx	1 50	@ 2 00		Zante Currants	8	@ —
do Choice	2 25	@ 3 50		**RAISINS.**		
do Navels	3 00	@ 5 50		Dehesa Clus, fcy	2 65	@ —
do Panama	—	@ —		Imperial Cabinet, fancy	1 90	@ —
Peaches, bx	—	@ —		Crown London Layers, fcy	1 70	@ —
do bask	—	@ —		do Loose Muscatels, fancy	1 60	@ —
Crawfords, bx	—	@ —		do Loose Muscatels	1 50	@ —
do bskt	—	@ —		Cal. Valencias	1 50	@ —
do choice	—	@ —		do Layers	1 50	@ —
Pears bx	—	@ —		do Sultanas	1 50	@ —
do choice	—	@ —		Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths		
do Bartlett, bx	—	@ —		**VEGETABLES.**		
Persimmons, Jap, bx	1 00	@ 1 50		Artichokes, doz	—	@ —
Pineapples, doz	4 00	@ 5 00		Asparagus box	—	@ —
Pomegranates, b	—	@ —		do cultivated	—	@ —
Plums lb	—	@ —		Okra, dry, lb	10	@ 12½
Prunes bx	—	@ —		do green box	—	@ —
do Egg	—	@ —		Parsnips, ctl	1 50	@ —
Quinces bx	—	@ —		Peppers, dry lb	10	@ —
Beets, sk	1 00	@ —		do green, bx	40	@ 60
Cabbage, 100 lbs	50	@ 75		Pumpkins per ton	12 00	@15 00
Carrots, sk	25	@ 35		Squash, Marrow fat, 100	7 00	@12 00
Cauliflower, doz	—	@ —		do Summer bx	25	@ 40
Eggplant, bx	—	@ —		String beans lb	—	@ —
Garlic, lb new	—	@ —		Tomatoes box	—	@ —
Green Corn, small box	—	@ —		Turnips ctl	75	@ 1 00
do large box	—	@ —				
Green Peas, lb	—	@ —				
Lettuce, doz	10	@ —				
Lima Beans lb	—	@ —				
Mushrooms, bx	—	@ —				

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to anyone who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations.....05
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12.—$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application .25
14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.) .25
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25.—Ropp's Easy Calculator, cloth, 80 pp.....25
26.—How to Tell the Age of a Horse.....05
27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, $3).....1.00
Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present)..25

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Send for free circular describing most of these premiums, and any further information desired.

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Catalogues, Etc., Lately Received.

Select Roses, for 1886. Ellwanger & Barry, Mt. Hope Nurseries, Rochester, N. Y.

Trees, Plants, Shrubs, Roses, Bulbs, etc., of the Bloomington Nursery, Bloomington, Ill.

Autumn Catalogue of Bulbs and Small Fruits. W. W. Rawson & Co., 34 South Market St., Boston, Mass.

Trees, Shrubs, Plants and Bulbs for Autumn of 1886. Fred. W. Kelsey, 208 Broadway, N. Y.

Seed Catalogue, Rural Register and Almanac for 1887 (pp. 65, illus.). D. Landreth & Sons, Phila. Penn.

Farmer's Pocket Companion, 1887 (wallet form). Deere & Co., Moline, Ill.

Seed Annual (pp. 124, illus.); also Bulbs and Seeds for Fall Planting. D. M. Ferry & Co., Detroit, Mich.

Illustrated Catalogue of Trees and Plants (pp. 34). J. T. Lovett, Little Silver, N. J.

Catalogue of Palmyra Nurseries and Fruit Farm for Spring of 1887 (pp. 32). A. M. Purdy, Palmyra, N. Y.

The Storrs & Harrison Co.'s Catalogue, 1887 (pp. 142, illus.), Painesville, Ohio.

Annual Catalogue of Seeds (pp. 96, illus.). Jas. M. Thorburn & Co., 15 John St., N. Y.

Annual for 1887. Sibley's Tested Seeds (pp. 90, illus.). Hiram Sibley & Co., Rochester, N. Y., and Chicago.

Easy Binder.

Dewey's patent elastic binder, for periodicals, musi and other printed sheets, is the handiest, best and cheapest of all economical and practical file binders. Newspapers are quickly placed in it and held neatly, as in a cloth-bound book. It is durable and so simple a child can use it. Price, size of Mining and Scientific Press, Rural Press, Watchman, Fraternal Record, Masonic Record, Harper's Weekly, and Scientific American, 75 cents; postage, 10 cents. Postpaid to subscribers of this paper, 50 cents. Send for illustrated circular. Agents wanted.

SEMI-ANNUAL STATEMENT

OF THE

GRANGERS' BANK of CALIFORNIA

Which is a banking corporation under the laws of the State of California.

Amount of Capital actually paid into said corporation....	$600,000 00
Surplus paid up and Reserve Fund.....	52,229 89

STATE OF CALIFORNIA, CITY AND COUNTY OF SAN FRANCISCO. }

A. D. Logan and A. Montpellier, being each duly sworn, severally depose and say that they are respectively the President and Cashier of the Grangers' Bank of California, above mentioned, and that the foregoing statement is true.

(Signed) A. D. LOGAN.
(Signed) A. MONTPELLIER.

Subscribed and sworn to before me this 12th day of January, 1887.

(Signed) JAMES L. KING, Notary Public.

SEMI-ANNUAL STATEMENT

Showing the Actual Condition

OF THE

GRANGERS' BANK of CALIFORNIA

And the value of its Assets and Liabilities and where said are situated, at the close of business, Dec. 31, 1886.

ASSETS.

Loans on wheat, real estate and other securities.....	$1,270,307 41
Due from banks and bankers.....	5,597 27
Real estate.....	125,738 95
Office furniture, fixtures and safe.....	4,500 00
Expenses, taxes, etc.....	.....
Cash on hand.....	148,623 87
Total.....	$1,554,767 50

And said assets are situated in the following counties, to wit: Alameda, Butte, Contra Costa, Colusa, Fresno, Merced, Monterey, Placer, Stanislaus, Sutter, Solano, San Francisco, Tehama, Tulare, Yuba and Yolo.

LIABILITIES.

Capital stock paid in U. S. gold coin.....	$ 600,000 00
Surplus paid up and reserve fund.....	52,229 89
Due depositors, banks and bankers.....	858 458 04
Dividends due and payable.....	44,079 57
Total.....	$1,554,767 50

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H. M. NEWHALL & CO.,

SHIPPING AND COMMISSION MERCHANTS,

309 and 311 Sansome Street, San Francisco, Cal.

Agents for Growers and Manufacturers. Charterers of Vessels for all Trades. Agents for the Mexican Phosphate and Sulphur Company's Products. General Insurance Agents.

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PERCHERON HORSES.

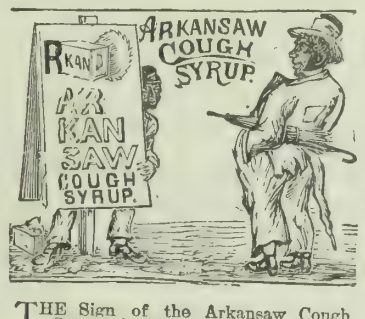
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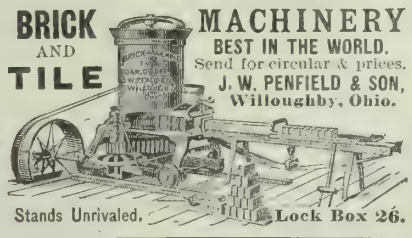
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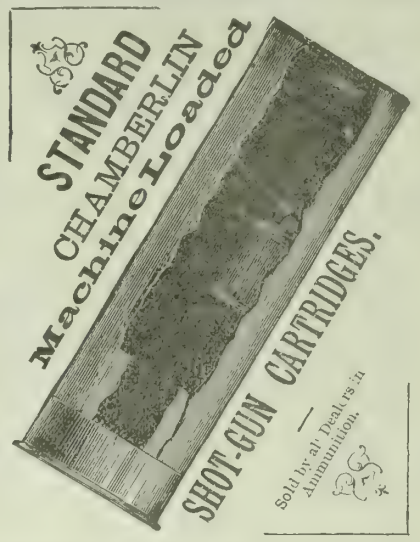
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SEEDS

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Awarded First Premium

At the State Fairs of 1884, 1885, and 1886; also numerous County Fairs.

For further particulars inquire of

N. McLEAN, Watsonville, Santa Cruz Co., California.

THE FAVORITE.



PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Jan. 13-19.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.21	51	S	LR.	.01	50	Cm	LR.	.00	57	SE	Cy.	.05	56	SW	Cy.	.00	60	SE	Fr.	.00	60	SE	Cl.
Friday	.67	47	S	LR.	.01	50	Cm	LR.	.00	52	SE	Cy.	.00	54	S	Cy.	.00	65	W	Cl.	.00	59	Nw	Cl.
Saturday	.50	40	S	Cy.	.21	52	Nw	Fr.	*.—	55	W	LR	.05	55	Nw	Cy.	.00	60	W	Cl.	.00	57	Nw	Fr.
Sunday	.01	43	S	Cy.	.00	49	N	Cl.	.05	50	Nw	Cl.	.00	51	NE	Cl.	.00	61	S	Fr.	.00	59	W	Cl.
Monday	.00	41	E	Cy.	.00	48	N	Fr.	.00	47	N	Cl.	.00	54	N	Cl.	.00	70	E	Cl.	.00	59	E	Cl.
Tuesday	.84	40	Cm	LR.	.03	45	E	LR.	*.—	47	SW	LR.	*.—	53	N	Th.	.00	70	E	Cl.	.00	64	W	Cl.
Wednesday	.60	39	S	Cy.	.29	56	W	Fr.	.90	52	S	Fr.	.76	51	Nw	Cy.	.00	59	SW	Cy.	.00	60	W	Cy.
Total	2.83	....	....	....	M	....	....	....	.95	....	....	....	.86	....	....	....	.00	....	....	....	.00	....	....	....

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

Seeds, Plants, Etc.

BARREN HILL NURSERY

NEVADA CITY, CAL.

SPECIALTIES:

NUTS, PRUNES, AND GRAPES.

The Finest Collection of Nut-Bearing Trees to be found in the United States.

19 Varieties of Walnuts,

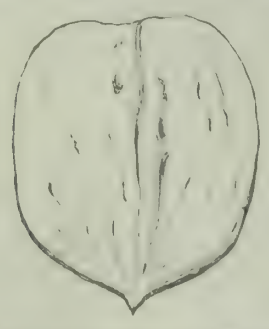
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The newest, most prolific and valuable variety ever introduced into this country.

PRŒPARTURIENS,

Or Early-Bearing, or Fertile Walnut, introduced into California in 1871 by Felix Gillet. "Second Generation" Trees, grown from nuts borne on the ORIGINAL tree; 90 % guaranteed to be "genuine Præparturiens," or having retained the surprising characteristics of **precocity, fertility** and **hardiness** of the **original** Præparturiens. "Third Generation" Trees, grown from nuts borne on **second generation** Præparturiens, entirely California-grown; vigorous, hardy and fertile variety.



"Second Generation" Præparturiens.

Serotina, Franquette, Mayette, Chaberte, Gant, Parisienne, Mesange Walnuts.

The leading varieties of Europe, highly recommended for beauty and quality of the nuts, fertility and hardiness of the kinds.

9 Varieties of French Chestnuts or Marrons (Propagated solely by grafting).

7 Varieties of Filberts.

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81 Varieties of English Gooseberries, all sizes, shapes and colors, and "true to name."

PRUNES! PRUNES!

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We have ourselves given this name of "Lot D'Ente" to this type, so extensively propagated in the valley of the Lot (France). **True from the root** and not grafted, and which we have introduced into this country. This type of the D'Ente Prune is not at all propagated by grafting, which would do away with its chief qualities of being more vigorous, more **long-lived** than grafted trees, and a **gum-resistant** stock.

ST. CATHERINE, "True from the root."

This kind is altogether propagated **true from the root** in its home, valley of the Loire (France), and offers greater advantages than grafted trees, as being also more vigorous, more long-lived, and a **gum-resistant** stock.

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Ever-bearing Black Mulberry of Spain—Medlar, Sorbus (all those kinds should have a place in all gardens)

Mulberry Trees for Silkworm Feeding. Silkworm Eggs. Sericulture Chart, 50 cts.

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Leading Specialties for Season of **1886-87:**

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MUIR PEACH,
LOVE-ALL PEACH.

LEONARD COATES
(Successor to COATES & TOOL),

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Fine assortment of the leading varieties at the following reduced prices, to the trade:

2000 Apples	5 to 10c.	9500 Pears	5 to 10c.
6700 Apricots	4 to 8c.	7800 Cherries	5 to 10c.
7700 Prunes	4 to 8c.	2050 Peaches	4 to 8c.
4600 Plums	4 to 8c.	1000 Japan Plums	6 to 12c.

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On Myrobolan Stocks.

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Our Apple, Pear, Plum, Prune, Apricot, and Cherry are grown on imported stock, on new land, isolated from any old orchards and are free from all insects and defects. An inspection is solicited by all those intending planting the coming season.

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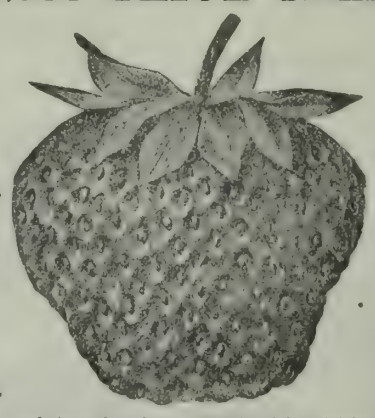
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Apples,
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Plums,
Prunes.
Cherries,
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Apricots,
Nectarines,
Figs.



Quinces,
Loquats,
Guavas,
Medlars,
Persimmons,
Pomegranates,
Mulberries,
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For 1886 and 1887.

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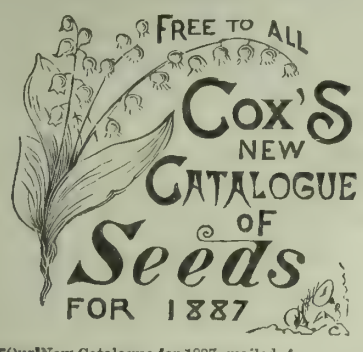
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☞The above Seedlings are imported from France, and are all in prime order. Also choice Bartlett Pear and Apple Trees.

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Vitas Californica Cuttings, $8 per 1000.

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STRONGEST MADE ON PACIFIC COAST.
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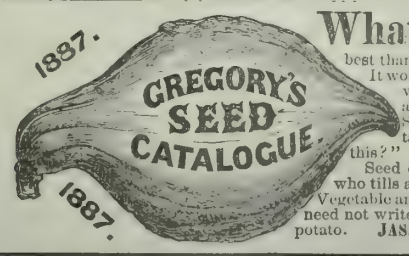
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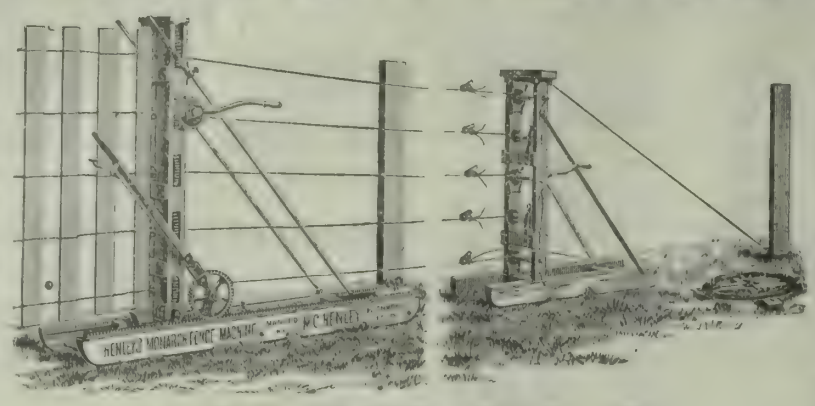
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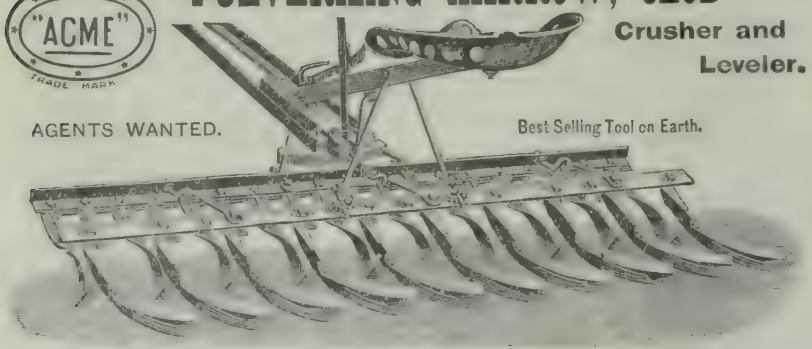
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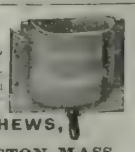
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TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 5.] SAN FRANCISCO, SATURDAY, JANUARY 29, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

Irrigation in the Legislature.

The Legislature seems disposed to make haste slowly on the enactment of irrigation laws, and such seems to us a wise policy on the whole. The State would certainly suffer more from unseemly haste and from unwise legislation than t possibly can from delay. One of the best escapes the State ever had in the matter of laws affecting industrial interests was the failure of law-making at lightning speed, as was contemplated by the extra session of last September. As we have remarked before, that session may be counted profitable for what it refused to do.

Now although there are several propositions before the Legislature, and possibly some of them could be passed with advantage, there seems, according to reports, a disposition to remand the subject to fuller inquiry in the hope that with more discussion among the people and a careful examination by scientific investigators the members of the next Legislature may be better prepared to enact irrigation laws than the one now in session. A good point is also made to the effect that the campaign of 1888 will have no Governor to elect, nor is it likely that another senatorial issue will arise, so that the attention of the people can be directed to the water question as a leading local issue in the canvass.

As we have said, it might secure good results to pass other laws, but it is reported that the disposition at Sacramento seems to be otherwise. The bill which receives most favor from legislators is that introduced by Brierly of Los Angeles, and has been framed substantially in accordance with the recommendations of State Engineer Hall. It provides for the creation of an Irrigation, Drainage and Water-rights Legislative Commission to exist for two years, whose duty it shall be to inquire generally into the subject of irrigation and water-rights, and report a code of laws to the Legislature of 1889. The members of the commission are to consist of five persons not interested in water-rights, to be appointed by the Governor, and to draw a salary of $4000 each. They may appoint a secretary at a salary not to exceed $2000 a year, and the State Engineer is required to act as Engineer of the Board. It is made the duty of the commission to formulate all the data now in the State Engineer's office, examine the laws of other States and countries, hold meetings throughout the State, and obtain the views of all interested in any way in the subject. In October, 1888, they are required to print and distribute an outline of their report so as to elicit discussion before the meeting of the Legislature, upon which they are required to attend and explain the laws codified. To carry out the Act, $50,000 is appropriated.

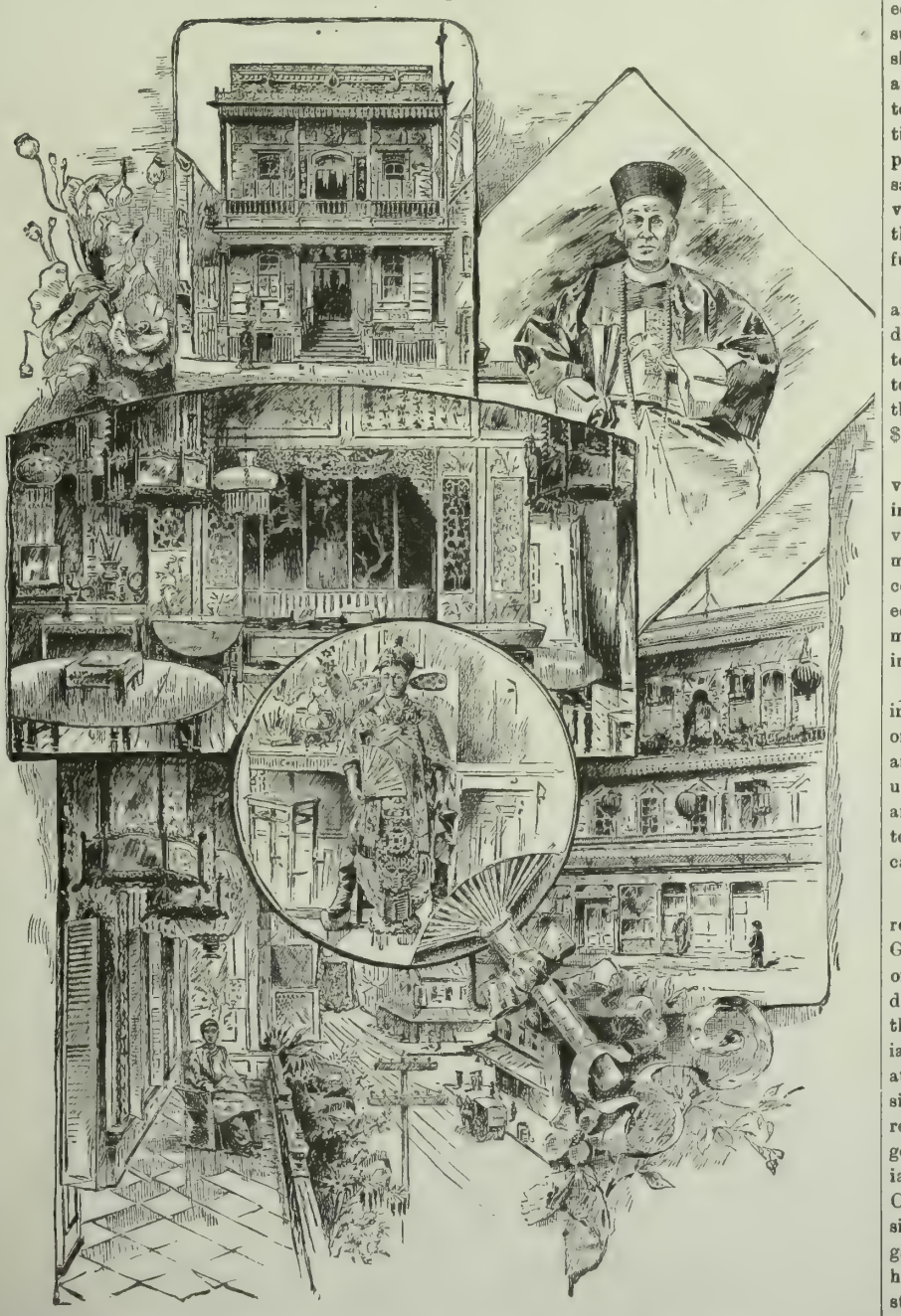
Of course everything depends upon the appointment of the commission. Governor Bartlett has qualities of insight and appreciation which lead us to expect that he will give us a commission composed not of place-seekers, but of thoroughly competent men, viewed from the two points of science and practice, men who will make for themselves a life reputation if they do good work, and will render a service to the State which will be the key to her fullest progress and development.

Interstate Commerce.—The Interstate Commerce bill only awaits the President's signature to become a law. A full abstract of its provisions may be found upon another page of this issue.

The Chinese New Year.

Reporters who are giving due attention to the festivities in Chinatown assure us that the New Year's celebration the present year is more grand, gloomy, and peculiar than usual. The Chinamen seem to be prosperous and are expending more money in honor of their heathen deities, and more in the gratification of their own gustatory and esthetic tastes, than is common. It seems likely that the restriction act which makes the race a less important factor in our public affairs, at the same time benefits those who have secured admission by securing for them better wages and less competition in their efforts at trade and manufacturing. However this may be, the general processions, and feastings, and the special adornment of individuals and their habitations bespeak an unusual amount of ready money in their hands.

Chinatown remains the Mecca of the visiting tourists in San Francisco, and this year the white faces in the Chinese quarter are many. Many of our readers have never seen the celestial sights of the city, and for their benefit we introduce a sketch which has rather more artistic features than those usually engraved to show this branch of San Francisco's contents. The artist has selected those places which are most prominent in Chinese estimation, and where they are most lavish in their New Year's expenditures. Such places are the josshouses and the restaurants. The upper building in the engraving is the exterior of a josshouse, and the drawing upon the fan is an interior of such a building with the priest in full toggery, and the little joss in the background surrounded by joss-sticks and viands. At the upper right-hand corner is one of the aristocracy of Chinatown—a rich merchant. The large central interior is that of a restaurant, of which an exterior balcony view is given below. On the right is the exterior of another restaurant and high-toned gambling sheol.



SCENES IN THE CHINESE QUARTER OF SAN FRANCISCO.

To Root Out Glanders.

A bill, introduced by Assemblyman Henry, is before the Legislature to eradicate glanders and farcy. It requires any Board of Supervisors, on petition of 25 or more resident taxpayers, to appoint a County Veterinary Surgeon, who shall examine all animals reported to him as having glanders or farcy, and if such animals be found to be so diseased, he shall summons three disinterested residents and taxpayers of the county, who shall proceed to value said animal or animals, which valuation (not exceeding $75 for one animal) is to be paid for out of the general fund of the county; said appraisers to receive $3 per day, and said veterinary surgeon $6 for each day engaged in these duties, also payable out of the general fund of the county.

The owner or keeper of such animals may kill and dispose of them within 10 hours after condemnation and valuation; but should they fail to do so, the veterinary surgeon shall cause it to be done, and there shall be deducted from the valuation of the same a sum not to exceed $10 per head, to pay for the killing, etc.

Any person who obstructs the action of the veterinary surgeon, and so prevents the killing of any animal or animals so condemned and valued, is to be deemed guilty of a misdemeanor, and, upon conviction thereof by any court of competent jurisdiction, shall be punished by a fine not to exceed $75, or by imprisonment not to exceed 30 days, or by both fine and imprisonment, at the discretion of the court.

The proposed measure is criticised as relegating too far to local authorities a subject on which there should be general State action, and as offering to pay for animals already utterly worthless. On the other hand, it is argued that the provision for payment will tend to prevent attempts at concealing dangerous cases.

The Raisin Tariff.—The Secretary of State recently wrote to Congress that the Spanish Government was desirous of having the tariff on raisins and Zante currants equalized at the duty now levied on the latter. The plea is that they are alle same dried grapes, and the Spaniards seem to be real gentlemanly in calling the attention of the United States to the inconsistency in their tariff regulations. The Secretary of State seemed to think it would be a good thing to be consistent and please the Spaniards at the same time. The raisin-producers of California are not anxious for any such consistency, and by the time the California delegation gets through with Mr. Bayard he will have more knowledge on the subject than he started with.

Attacking the Oleomargarine Law.—When the oleomargarine law was secured, it was anticipated that efforts would be made to break it down by amendments. This ball has opened with the bill of Senator Beck, of Kentucky, introduced January 25th, which aims to reduce the annual tax on wholesale dealers in oleomargarine from $480 to $100, and the license tax on retail dealers from $48 to $12 per annum. The license tax on manufacturers of oleomargarine is left unchanged.

It is said that since large numbers of coyotes have been killed on the plains of Fresno, the colonists are greatly annoyed with jackrabbits that destroy vegetation and trees.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

How Puget Sound Struck a Californian.

EDITORS PRESS:—I come from the region of San Francisco, but am posted in the characteristics of California generally. Perhaps a brief setting forth, "How Puget Sound Struck Me," may not come amiss. I went by steamer to Seattle, and thence northward to Whatcom county, lying on the sound, next to the Canadian border and extending eastward to the Cascade mountains. This county is said to have more land adapted to farming than all the rest of the region bordering on the sound. The first and chief characteristic appearing is a broad plain stretching southward from the Canadian border some 20 miles, and eastward to the Cascade mountains a like distance. It is quite level, but, unlike California plains, is generally well covered with a goodly growth of trees—pleasant to a lumberman's eye, but wearing a rather forbidding aspect to that of a farmer.

The surface appears to alternate between bottom-lands, often more or less covered with peat, and ridges with a loamy or sandy soil. These ridges have a very slight elevation, frequently not discernible to the casual traveler. The bottom-lands are apt to be of a marshy character, sometimes covered with grass or bushes, but commonly with trees. Alder, vine maple and cedar are the chief growth on the bottom-lands. Passing to the ridges, we may have cedar on the soil of a more loamy character, and then firs as the soil is more sandy. These firs and cedars may be of a size to remind one of California redwoods, and, when left on the ground in the shape of well-rooted stumps, are very enduring. In years past great fires swept through these forests and destroyed untold amounts of timber. Much of the bottom-land requires draining, and water will be running in the ditches the year through.

How They Live.

The soil, except the more sandy ridges, appears very productive. The settlers upon it have an unbounded faith in its capabilities. Generally they have little land in condition for farming—the work of preparing it being so great. Each farmer is sure to have a goodly patch of potatoes and various vegetables, to which, with pork added, he looks for the chief support of his family. Then, if he can boast a yoke of oxen and a few cows, he feels himself in comfortable circumstances. He needs a hayfield large enough to give him a ton of hay for each head of stock in the winter. The forests around furnish an abundance of fine timber for buildings and fences. The house is probably of logs, more or less nicely hewed. It may be covered with clapboards split from the easily riven cedar, and perhaps planed to a fair surface. Split cedar "boards" may inclose his barn. Like boards, planed to surface, form his floors. As sawmills enter the country he may use sawed lumber. With enterprise he begins to add an orchard and enlarges his garden to include various kinds of small fruits.

Meantime the poultry have not been forgotten. They, with his cows, if he has them, help pay his grocery bills, which he is all careful to have as small as possible. Hogs fattened on peas may give him a little extra cash in the fall, with perhaps, in rare instances, a beef animal. If he goes to town with or for a load he takes his oxen, otherwise he goes afoot. A sled may serve all the purposes of a wagon. Possibly out of sawed or split planks he may have formed wheels and has a cart. Some do have wagons.

The above is written with a Whatcom county family in view. There is another object in very frequent view here, and it is called a "bachelor." I have never before seen them so abounding. Some of the settlers look upon them as not altogether a desirable addition to the country. A few would be well, but then there are so many of them. Like the men with families, they generally have little means and are apt to be away in summer at work and wander back to their claims in winter. This kind of management brings slow development to the country.

I like the looks of the people, as a class. They are generally American born. Foreigners that I have seen are German or Scandinavian—a good class of people. The nearness to Canada brings a good deal of wandering back and forth. I judge that at present Canada affords the better openings for workmen. The people are not so nervous, not so much given to driving ahead, as in California. They must have a wonderful amount of patient pluck. After being here years they seem to me to have only made a beginning. I brought my team from California and counted it the slowest in all my neighborhood there. It was weeks before I found anything that would go by me on the road here. The first was a man on horseback, the next was a man afoot. The latter was making the better time. People going afoot is a marked characteristic of this country.

The Roads.

Years ago I was hearing the expression of "Jordan is a hard road to travel." It isn't possible that the originator of it ever traveled over a Whatcom county road. He would have lost all thoughts of the way to Jordan. The climate is to be classed as wet, the surface of its wide plain as flat, and the roads lead through dense timber. Where it is found otherwise impossible to have a roadbed that will bear up a team, the way will be "corduroyed," and a goodly portion of the roads here are corduroyed. Over it the carriage goes at a foot pace, joltity-jolt and jouncety-jounce. With use I must confess it does not appear so bad, especially when one remembers that the corduroy keeps him out of a deep mudhole. A change from the corduroy is found sometimes in the "chuck-hole" road—little mudholes here and there of varying depth. My ponies, with the wit possibly peculiar to a California-born horse, have readily adapted themselves to the new order of things. If they see a crack in the corduroy too wide for the hoof, they step over it; if a corduroy rail turns and lets the foot through, they quickly pull it out; they hate a chuck-hole, but plunge in if I insist; if the peat lets them in so deep that they cannot handle themselves and the wagon too, they lie still till loosed from the wagon.

Crops.

While water is abounding, running in the draining ditches along the roads and around the fields throughout the year, there appears no malaria. I suppose it is on account of the coolness of the climate. Snow-covered mountains are ever in view, Mt. Baker standing chief among them. The nights are generally cool. Early ripening kinds of corn are raised. Peaches, tomatoes, watermelons grow, though not so freely as in some other sections. These facts, I suppose, give a sufficient indication of the warmth of the summer climate.

All kinds of vegetables grow freely and attain a goodly, and it may be said an enormous, size. Of grain crops, oats succeed better than others. The common fruits, large and small, grow finely. The bottom-lands are held to be first class for hop-growing. Cattle indulge in green grass the year through, except when the snow lies too deep, though I fear in the late fall and winter they find it very short or much mixed with old rain-washed stalks. I see indications that the grass is not so "strong," so hearty, as in sections where water is less abounding. The people do not seem to realize the fact, but I think they will find, on comparison, that cows do not produce so much butter, and steers do not take on flesh so readily, as in dryer climates. But it must become, when cleared, a grand stock country. So far the stock is a good deal lacking and is held at high rates. People have little money to buy, but try to hold fast to what few head of stock they have.

The country is new. A few settlers came 10 or 15 years ago, but the majority date a very few years back. Then there was a great "boom," and land prospectors crowded in so fast that sometimes at night the old settler found his floor pretty well occupied by them, and the land was nearly all covered by the filings. Some hastened to perfect a "pre-emption," and then followed it by a homestead—perhaps thus holding 320 acres with not 10 acres ever in crop—possibly not one acre. Not a few "proved up" and left the country. In some cases Government has annulled such claims for fraud or failure to comply with requisitions. Land uncleared is selling at from $5 to $10 an acre. By the time the buyer has cleared it he will conclude that he has paid more.

Requisites for Development.

It manifestly requires muscle and pluck to develop this country. The young will view the prospect with a more cheery eye than the old. It is not prairie land into which one needs only to plunge the plow. It will be difficult to find a spot naturally clear of trees that does not require ditching. The work of clearing away the trees, one may estimate for himself. Commonly the roots do not extend far below the surface, even of the cedar and fir. I suppose it is on account of the abundant moisture below.

It is a country for small farmers. All recognize this, yet as a rule each one tries to get hold of and hold fast to all the land he possibly can. In time the matter will probably remedy itself. If each old settler would dispose of one-half of his land to a new-comer and invest the receipts in stock, he would find he had made a long stride onward in the way of attaining a comfortable independence.

This land bordering on the sound is so generally hilly, as well as wooded, that roads are not made with facility. Many steamers ply between the towns, which are largely built within the reach of navigation. At the head of the sound railroads are already in operation. They are surveying for a railroad from Seattle to Whatcom city, thence to run in two branches north across the Nootsak plain to the border and on to the Canadian Pacific railroad line. The Nootsak river has been occupied by a small irregularly running steamer, but the navigation has been a good deal impeded by snags. These, a Government vessel is now engaged in pulling out. The current is swift. The bottom-lands on this stream have a character of their own and are very productive. Sometimes a jam in the river causes them to be widely overflowed.

Climate.

Potatoes, etc., are commonly heaped up on the ground in the fall and a foot or more of earth piled above them against the winter cold. A root cellar may be made above the ground, perhaps by setting short rails gable fashion and putting plenty of earth upon them. The winter may be "open," with little snow and freezing. But there may be snow for a month or more and the ground freeze to the depth of a foot. Generally there is a "spell" of the winds blowing from the snowy mountains, and then the cold appears to be searching for a body's marrow.

Progress in Schools

Is a good deal hindered by the fact that Congress will not yield to the long-expressed desire of the Territory to become a State. The present condition is far below that of schools in California. The law requires a three months' school in a year here; in California it will not tolerate less than six. The requisitions of teachers and wages paid them are perhaps one-half the California standard. I like the appearance of the young people here. I see evidences of good home-training delightful to a teacher's eye.

Farmers here are fond of setting forth how much they raise to the acre, but before the story is completed you may find that a quarter of an acre is the outside limit of the crop. I heard one man the other day boasting how much he got from a single hill of corn. I have seen but one field with a large growth of stalk to the grain, but I judge the heads fill out well. Timothy is chiefly grown for hay and is also used in seeding lands for pasturage. Red clover grows freely. I see a white clover native and also a kind of red-top and also of blue-joint.

Fish abound in the rivers in their season, but by the time the salmon have worked their way well up the small streams they are not fit to be eaten. A bear may pick up a pig now and then, and the settler in turn may pick the bear off. Lynx, or "wildcats," are as fond of chickens as in some parts of California. The deer, black-tail, is of a larger species than that in California. We have the cougar, or California lion. Bird life is not abounding, neither does animal life appear so to me, except in the case of mice.

Lands and Settlers.

There is said to be good unoccupied land back on the upper waters of the Nootsak, but very difficult of access. A man afoot can scarcely get to it. A number of settlers going in might be able to cut roads to it. Good roads are the great desideratum here. There are many projected, surveyed and perhaps "cut through," but when all is done, the new-comer is hardly willing to admit that a fair beginning has been made, so rude and rough are they. But when he considers, he sees that much work has been done, albeit his aching bones and impatient spirit will wish to add that very much more is needed. The state of the roads agrees with the development of farms. With patient labor the work has been begun, and with patient labor it must go on. Sometimes a settler for a long time packs his supplies upon his own back to his claim, because he lacks a team, or even a horse, or because the trail would not admit the passage of even a horse if he had one. Perhaps the first butter and eggs he produces may go to market in the same primitive fashion. It does seem to me that the people here should have the palm for patience and pluck.

They Love the Country.

I called at a house the other day, a half dozen miles from town by road and trail. The lady of the house said she came from a large city to her present abode, about a year ago, and had been afoot to town once. The father was working here and there, earning what he could. The children packed the provisions from town. She seemed contented and felt she would be blest if they could only have a cow. In brief, the people appear in love with the country—the reason not always appparent to a new-comer. The soil is productive, so far as they can get it in condition for farming; the climate is healthy and free from the extremes of heat and cold; no cyclones sweep through; no venomous reptiles abound. They try to have things as comfortable as they can in the present and they sweetly dream of the future—their prophetic vision piercing through tall forests, bounding over giant trunks of prostrate trees, across undrained plains of peat. Shall I ever be as strong in faith in the country, as enthusiastic as they? Perhaps so—perhaps when I too raise my 50-pound cabbage I shall make a horizontal cut across the head, reckon up the square feet and inches in it, and then estimate the amount to be produced to the acre.

Cities and Markets.

Whatcom "city" is the county seat. A few years ago it started ahead in the boom; now its appearance is not altogether one of life. It appears to me to lack in public spirit. It has not even a graveyard. A stranger dying there a short time ago was buried in the public highway. Owners of land may have a spot fenced in where lie the family dead. The roads near the "city" are much uncared for and marked by abounding chuckholes. Unless a change is inaugurated, I fear the people in the Nootsak valley will agitate the matter of having the county seat on that river. With united action they can do as they please.

The opening of the Northern Pacific railroad appears to have brought prices of goods down to the San Francisco standard. Eastern goods are now imported direct. Seattle is the chief point on the sound. Tacoma is pushing itself forward as a rival in the struggle for supremacy, but Seattle will doubtless retain the present advantage.

As far as I see there is a sale for produce. A good deal is now brought to Seattle from San Francisco. Our prime flour has the California brand. Cornmeal in the market is not a home product. Ground feed for stock may come from California as well as many kinds of manufactured goods. Potatoes sell here now at 30 cents a bushel; wheat is 1½ to 2 cents; oats 1½ to 1½ cents; apples ½ to 1 cent. I state prices as I have bought for my own use. Beef and pork are 7 cents, the producer selling to his neighbors. Lumber at the mills here is, rough, $10; dressed, $16 per M.

We do not have the strong storm winds of California. Usually the rain comes down very quietly. It appears to rain in the stormy half of the year with a very little effort, but rain-gauges do not show a greater fall than is recorded in New England—but we have less here than on the upper waters of the sound. So far I have seen little fog. Thunder and lightning are not abounding. Of course in a region so far north the days are short in winter—from 8 A. M. to 4 P. M.—and proportionately long in summer.

Woman here, in the exercise of the right of suffrage, has stood grandly for temperance. Outside of Whatcom city, I have not seen a liquor saloon in the Territory. The precincts were allowed to vote severally upon the question, and in my own the decision was 15 to 1 against liquor saloons. S. H.

HORTICULTURE.

Orchard Fruits in Fresno.

EDITORS PRESS:—While passing over the country southeast of Fresno city, in the neighborhood of Malaga and Fowler, we had an interview with D. W. Lewis, of Fresno city, residing near Malaga, and who has a pear orchard of 160 acres two miles west of Fowler—trees of ages three, two and one years. Mr. Lewis has paid much attention to the cultivation of the pear and the varieties most profitable for this central valley of California.

In making a list of the most valuable varieties for this section, the Bartlett would come first as the best of its season. There are other pears that would stand shipment better, but on arrival East would sell cheaper because of inferiority. Next are the Howell and Beurre Clairgeau. These are the two best fall pears, both large in size and abundant bearers. For late fall varieties he grows the Beurre Bosc, Winter Seckel or Dana's Hovey. This last variety is very good, of medium size, fine flavored and choice for market, a good shipper, and probably should be classed as a winter pear. Beurre Bosc is of excellent flavor, large size, great beauty, very russetty and peculiar in form, with a large neck. Winter Nelis, the standard of excellence among winter pears. P. Barry, originated by the late B. S. Fox, of San Jose, is an excellent pear and a good shipper. The tree is very hardy, productive and free from blight. The Eastern Beurre is considered hardly worthy of cultivation; it is an irregular bearer and does not hold its keeping qualities here like other pears.

All pears above named have been tested here in the valley region of Fresno county, and those which are approved of, Mr. L. has growing in his young orchard, as he considers these pears equals of the best in the State. It should be borne in mind that while many remarks made by Mr. L. may be taken as suggestive for other parts, yet that they are founded on experience here, and that the list here given is not intended for any other place. The locality where pears are grown has much influence on their character as shippers. A given variety raised here may prove to be a good shipper, but this fact should not be received as conclusive evidence of its good shipping qualities if raised in some other locality. In fact it might, upon experiment, turn out to the contrary.

Mr. Lewis gave us some points on the value of other fruits adapted to this region, as follows: For peaches we are unsurpassed. The most profitable are of the yellow and white cling varieties. This is because we can ship them out of the State better than others. Ringgold's Mammoth, a clear white cling, is considered among the very best of white clings. As among the very best yellow clings, he mentions the Lemon cling, the different kinds of Orange clings, and the Seller's cling. The last named is very thrifty and productive.

Nectarines also do admirably. The Early Newington is showy and a good shipper. The New White is preferred by canners. The nectarine makes a better dried fruit than does the peach, and perhaps there may be, to the producer, more profit in drying the nectarine for the market than in disposing of it in its green state.

Plums and prunes do not do so well. Kelsey's Japan plum commences very early, and is an abundant bearer. The yellow egg plum does fairly, and is used mostly by canners. The Hungarian prune does here as well as in any place ever seen growing by Mr. Lewis. It is a good shipper, and one of the principal varieties shipped East. It holds its own and keeps its color here better than in most places, even after it becomes soft. A good many plums and prunes do well in certain localities; but, as a rule, few varieties do well generally. For instance, the French prune does well in the lower or bottom-lands, but on the higher and dryer plains is not satisfactory.

As a rule, apples are not grown here with profit. The varieties should be very limited. The Red Astrachan, Gravenstein and Skinner's pippin are good cooking apples for summer and fall months, and such are about all that can usually be grown to advantage and with profit here.

Berries of all kinds, excepting currants and

gooseberries, succeed well. While strawberries only succeed in bearing one crop during the season, yet the life of the plants is well sustained during the hot months of summer. Mr. L. has been very successful with the Cuthbert raspberry, and black caps are known to do quite well; but most people, however, have not succeeded with any of the varieties. For raspberries here the ground should be sloping, so that water may be run over every few days, but at once run off again. This keeps the ground cool during hot weather. Most varieties have at best proved a failure, but Mr. L. thinks, from his success with the Cuthbert, that in localities with sloping surfaces, with the proper treatment, this variety may be made a success in this region.

Blackberries do well all over this country. Mr. L. had this season a fine crop of the Texas Everbearing (Crandall's Early). By cutting back the new shoots and trimming out the old wood in spring and summer, this variety may be made to bear all summer and fall. This would not be profitable, except in the matter of having blackberries late summer and fall, after the berry is out of the market. Texas Early bears profusely and early in point of ripening—ahead of all varieties tested here; it is nearly gone before others come in.

Mr. Myers' Experience.

C. Myers, orchardist and vineyardist, residing six miles north of Selma, in the spring of 1886, just as trees were budding, discovered that two of his four-year-old Bartlett pear trees were affected by scale bugs—one of them badly. It was after the rains had ceased and the weather had become dry. He first cut the limbs back to the extent of a full year's growth. He then applied to the trees a wash prepared as follows: Take from wood ashes 1½ gallons lye of medium strength, ⅛ pound plug tobacco, pound sulphur; put all in a pot and boil 15 or 20 minutes. Apply hot, or as warm as tree would bear without injury. With Mr. M. one application seemed thoroughly to kill the scale and clean the tree. He thinks cutting back important as, devoting attention to the tree thus shortened in, the bark may be more thoroughly moistened.

In the fall of 1883 Mr. Myers budded into stocks grown from seeds planted in the spring of 1882, apricots as follows: 200 into apricot stocks and 100 into peach stocks. Those budded into apricot stocks bore in 1885 only a few apricots, but in 1886, considering age, bore full and matured well. Those on the peach stocks have thus far never borne a single apricot. The buds have seemed to die without blooming.

The apricots on both kinds of stock are all of the same variety from a seedling supposed to be crossed between the Moorpark and Royal, and which bears as well as the Royal, but better fruit than that famous variety.

From observation in the orchard, Mr. M. thinks that apricot roots stand water better than peach roots. On this point especially we would like to hear from others having experience, as in some districts it is a matter of importance to know what roots, among orchard trees, stand water best. McD.

Fresno Co.

FORESTRY.

Report of the State Board of Forestry.

We have received a copy of the first biennial report of the California State Board of Forestry, which was organized upon April 1, 1885, under a legislative enactment approved March 9, 1885, and entitled "An Act to Create a State Board of Forestry and to Provide for the Expenses Thereof."

Prominent among those who interested themselves in procuring the passage of the act was Hon. James V. Coleman, of this city, and he was appointed by Governor Stoneman as one of its members, with Chas. M. Chase and Dr. A. Kellogg as his associates. The latter two gentlemen, upon the organization of the board, elected him chairman, which position he held until May, 1886, when, at his own request, he was permitted to resign the office. Abbot Kinney, of Los Angeles, who had been appointed by the board to fill the vacancy caused by the resignation of Mr. Chase, was then elected presiding officer. As now constituted, the board consists of Mr. Kinney, chairman, Mr. Coleman and Dr. Kellogg. The latter acts as treasurer, and Sands W. Forman is secretary.

The first report of the board, which has just been issued from the State printing office, has 238 pages of type and a number of maps and statistical tables. The report opens with a brief introduction prepared by the commissioners themselves. The commission says:

> The report, unless it has missed its mark, can hardly fail to create the impression that, as regards our forests, matters are in a bad way, and that injudicious legislation is responsible for much of the bad state of affairs. The evil is one which only time will correct—which better enactments, even, would now fail to reach. It is undeniable that something should be done to protect our forests, if only to guard against their exhaustion, danger of which threatens. Statutory legislation—however much it may aid—will not alone prove adequate; our forests need care. It is not without outlay that the evil consequences of a too extensive encroachment upon nature may be sought to be warded off; time, money and labor will be required. It is believed, however, that the burden of expense can be so distributed as to fall lightly upon the community, until a state of equilibrium is brought about, after which little more than a general supervision will be called for.
>
> The opinion is hazarded, that if remedial measures but keep pace with the destruction, the resources of our forests may be freely utilized without evil consequences ensuing. The efficiency of the forests at certain points should be maintained or stimulated, If this be but judiciously carried out we may hope to realize a compensation in the increased efficiency which may be imparted to lands now of little value.
>
> It is, however, essential as a basis for intelligent action to possess a thorough knowledge of the forests of the whole State—a subject which cannot be too carefully studied—and to the accomplishment of which worthy end this report—with all its shortcomings and defects—hopes to be a first step.

Our Supply of Redwood.

The commission has closely studied the subject of the supply and consumption of redwood, and the figures which they have obtained warrant one in assuming that the prospective consumption of sawed lumber will hardly fall short of that of the year 1885, say 215,000,000 feet, to which in estimating the total consumption must be added the production of the sundry items other than sawed lumber, and which may be stated to run, one year taken with the other, about as follows:

Railroad ties—equivalent in feet, board measure	15 000,000
Posts	12,000,000
Shingles and shakes	12,000,000
Making with the consumption in sawed lumber	215,000,000
A total of (feet, board measure)	254,000,000

And if these figures are a correct gauge of the future, the duration of the redwood might be set at about 120 years.

What its duration will eventually prove is a matter difficult to predict, the consumption being materially influenced by several modifying causes and the relation between supply and demand, not altogether a simple one, at least as regards the home market.

Everything considered, the commission thinks that the redwood is not liable to be exhausted in less than 75 or 80 years, and does not promise to last more than a century.

Report of the Secretary.

In the report of Secretary Forman is given a brief review of the circumstances under which the commission was organized, and of the work which has thus far been done. It includes also a statement in brief of the measures adopted by other States and Territories to insure the increase and preservation of their forests, together with a number of "county reports" received in response to inquiries from competent authorities in various sections of the State as to the present condition of their local timber interests. The counties represented are Alpine, El Dorado, Monterey, Napa, Placer, San Joaquin, Santa Cruz, Santa Barbara, Sonoma, San Diego and Ventura; and the replies indicate that in these the native woods have been destroyed in degrees varying from little or nothing in Monterey and Ventura counties to 40 or 50 per cent in Santa Cruz, Placer and Sonoma, or even 75 or 80 in Santa Barbara.

The secretary also says: The prevalence of forest fires during the latter part of the present year, and the immense loss to the Government and the State from these conflagrations, led the board to the printing on canvas for distribution throughout the State of Section No. 384 of the Penal Code, which is as follows: "Every person who willfully or negligently sets on fire, or causes or procures to be set on fire, any woods, prairies, grasses or grain on any lands in this State, is guilty of a misdemeanor, and is punishable by a fine not exceeding $1000, or imprisonment not exceeding one year, or by both such fine and imprisonment."

These canvas signs were posted quite extensively throughout the timbered districts, and although no convictions were procured, owing to the difficulties experienced and the lack of means to hunt up evidence, yet it is believed that the warning thus publicly given has had a salutary effect.

The expenses of the commission have been $4233.68, leaving a balance of $766.32 to the credit of the board.

Report by Abbot Kinney.

Chairman Abbot Kinney has collected considerable information relating to the disastrous effects of the destruction of trees, notably its influence in diminishing the water supply. He says:

James Craig, of the Hermitage ranch, informs me that for some years after the great Edwards fire on the watershed of the Precipica canyon, that stream diminished in its summer flow without regard to the rainfall, and is only now becoming itself again. This fact forced itself on Mr. Craig, as his entire water supply came from this stream. In one place this water-course was filled up 16½ feet, by actual measurement, with sand and bowlders. I am informed that the watershed of my canyon was burned over before my arrival—the traces are still plain in burnt trunks of trees—and that the summer flow of the spring on which I depend was thereby materially diminished, while during the rains great quantities of sand and bowlders were washed from the mountains, altering the appearance of the canyon.

After my purchase of the property from Robert Bayley, I ordered a sycamore to be cut down and the stump taken out. On going to see how the work progressed, I found the men digging out a chicken-coop frame 10 feet below the surface, which must have been buried by the torrent.

About six years ago I settled in the San Gabriel valley. The road to my ranch from Los Angeles passed through what is now the town of Pasadena, then consisting of one store, a schoolhouse and a number of orchards. The road passed on across the San Pasqual ranch, most of which was then used to pasture sheep. At that time between the Arroyo Seco and Precipica canyon there was not a single water-course—not one place where, through pebbles or cuts, a water channel could be recognized. During my residence, until two years ago, no water ever ran across the San Pasqual ranch between the points named. While these lands enjoyed an immunity from torrents, the foothills and mesas were covered with native growths of brush and chaparral, scrub oak, greasewood, sagebrush, etc. Every succeeding year has seen more of this covering removed from the land by clearing or fire, until now nearly all the mesas are bare of verdure.

The Influence of Trees and Shrubs.

Trees and bushes, and in fact nearly all vegetable growth, have a great power of holding rain-water and retarding its flow until it has time to sink into the earth. The leaves, twigs and branches intercept the raindrops and diminish their force. The roots and the fallen leaves and sticks hold back the water and divide its currents. Besides this, these impediments protect the soil so that it does not cut, thus the water does not get into well-defined channels where it can concentrate its force. The humus or soil of the forest and brush-land has remarkable powers of absorbing moisture. It is like a sponge in this respect, a quality of the greatest importance to perennial springs. Thus the destruction of the bushes has caused another change. The rains that were formerly absorbed on these lands are no longer taken in. Torrents have been born; orchards, vineyards, roads, fields and fences, formerly safe and which no one ever thought open to floods, have been damaged, partially destroyed, or altogether washed away.

Two years ago a torrent, now very plain, crossed for the first time the Mutual orange orchard, Mr. McCullum's orchard, and many other places, going down as far as Mr. Foord's. Last year, though the rains were so light, this torrent ran several times. I crossed it twice while water was coursing through it, but it did little additional damage. This year, however, the rains have already been heavy, causing much injury along the line named. Orange trees and hedges have been rooted up and carried off. In some places deep gullies have been cut; in others sand and gravel have been deposited, in one or two places to the extent of several feet in thickness.

Everywhere Mr. Kinney has found that whenever there has been a destruction of brush or trees through fire, clearing or otherwise, the streams have nearly disappeared, all of the water which falls flowing away as soon as fallen in the terrible and destructive form of torrents. Springs are diminished in volume, or dry up, and a general lack of water is found in places where there was formerly an abundance.

Springs Which Have Become Dry.

"Mr Arturo Bandini," says Mr. Kinney, "whose family has long resided in Southern California, tells me that his relatives and their vaqueros, or herders, say that in their experience the perennial character of many streams and springs has been destroyed and the pasture injured by the extensive cutting of oak and other trees and the burning of the brush on the mountains. He gives the following special instances: He says the waters of the Arroyo Seco are now less than they formerly were. The woods and brush have been extensively cut and grubbed up by the roots for fuel or destroyed by fire. He also cites the cienega and springs near the ranch-house of the 'Coyote' ranch, below Los Angeles. At this place formerly existed large springs and a sort of boggy place, or cienega. It was always the same until the monte or wood of willows around and above it was destroyed and the willows cut for fuel. Since the complete destruction of these willows the springs and cienega have disappeared, and now nothing but a white and desolate plain of alkali remains. Water and wood have disappeared together.

"When I first saw the watershed of Mission creek, at Santa Barbara, it was covered with a rich mantle of verdure. This growth protected the steep mountain-sides, and kept in place the soil and humus. By this means the heaviest rains were so detained as to either flow off slowly or to percolate into the deeper strata, to again appear as springs. Mr. Canfield's observations, as superintendent of the water-works of Santa Barbara, show that when the forest covering was destroyed three things happened. First—The green trees were replaced by bare, desolate rocks; thus the beauty and attractiveness of the country to strangers was diminished. Second—The stream took a torrential character, by landslides and washouts, carrying off soil, sand and rocks, to deposit them again on lower grades in its course. Thus every heavy rain filled up the water company's dam and reservoir with debris. Third—While the east fork, with its watershed forest intact, maintained its usual flow of water, the desolated Mission creek was so materially diminished in summer flow as now to contain no more water than its formerly smaller tributary."

Other Features of the Report.

Other important matters in the report which we must reserve for fuller mention hereafter are the following:

The report of Hubert Vischer, which is accompanied by a forest map of a group of counties, comprising the upper redwood district of the State, contains much important data.

A brief report upon the counties of Amador, Calaveras, Tuolumne and Mariposa is presented by Engineer Luther Wagoner, and is also accompanied by a finely executed map showing the original and present lines of saw timber in the counties named, which appears to indicate that between one-quarter and one-third of the lumber-producing trees of the section in question have already been destroyed.

Milton Thomas, of Los Angeles, contributes a short paper on "Forest Trees for Profit."

C. R. Orcutt has an important catalogue of the trees and shrubs of San Diego county.

Dr. A. Kellogg furnishes a catalogue of California forest trees and shrubs which are worthy of attention.

There are also other important matters which we cannot allude to at this time. The report is very creditable to the Board of Forestry and to all who have aided in its work.

ENTOMOLOGICAL.

The Codlin Moth.

EDITORS PRESS:—In the issue of the PACIFIC RURAL PRESS for Jan. 1, 1887, page 9, a question is asked involving the food habits of this insect. From personal observation I can say that it lives readily in peaches as well as in apples and pears. Some two years ago I found quite a number of peaches nearly ripe that contained larvæ from half to full grown. Some of the peaches gave evidence that the larvæ had developed there from first hatching, while others contained larvæ that had but recently entered by holes, showing conclusively that it has the same habit here that it does in the apple, of going from one fruit to another. From this we may assume that the method of starvation and quarantine Mr. Anderson speaks of will not be wholly effectual, probably not enough so to pay for the loss of fruit.

I may say in conclusion that our State Entomologist has been experimenting for the past two years with Paris green in the manner spoken of by Mr. O'Neil on the same page of the RURAL PRESS, and with good results. It seems to be the general sentiment here and in some other States, that the codlin moth can be kept in check by Paris green used at the time the fruit is the size of peas. G. H. FRENCH.

Carbondale, Ill.

The Use of Paris Green.

Concerning the last topic in Prof. French's letter, we find the following statement in the *Prairie Farmer:*

The State Entomologist of Illinois, Prof. S. A. Forbes, reports elaborate experiments made in the apple orchard with the arsenical poisons, the results of which show that an average of at least 70 per cent of the apples now destroyed or injured by the codlin moth may be saved to ripening by one or two sprayings with Paris green, made in early spring, while the fruit is not larger than a hazel nut. Taking one year with another, the codlin moth is found to infest about one-half the apples which set on the trees, and, making all reasonable allowances, it is estimated that the general use of the spraying method must effect a saving to the State in the increased value of the apple crop of at least $1,500,000 annually. The cost of the application would be practically nothing so far as the codlin-moth injuries are concerned, as the benefit to the trees and the crop, resulting from the destruction of curculios, canker worms and other minor leaf and fruit insects, must more than return the small expense of spraying. Observations and analysis have shown that there is not the slightest danger to the consumer of the fruit from poisoning the trees thus early in the season, when the apples are very small and before they have turned downward on their stems. The experiments show, however, that late poisoning is dangerous, and, furthermore, is without effect upon the codlin moth. Paris green was found more effective than London purple or solutions of arsenic, and lime had no effect at all. The experiments on which these statements rest were made under widely varying conditions during two successive years on several varieties of fruit, the number of apples examined being nearly 40,000.

Ladybugs and Codlin Moths.

EDITORS PRESS:—The remarks of some writer in the PRESS that the ladybug larvæ destroy the codlin moth larvæ remind me that my orchard has plenty of the former and few, if any, of the latter. The ground is mostly reclaimed springy tule land, oversupplied with weeds all summer, and the weeds well supplied with the ladybug. The apple trees have been in bearing six years, and I have seen but one apple showing sign of codlin moth. An older orchard, three miles distant, irrigated and clear of weeds,

REDUCING THE WASTE.—It is said that there is not over six pounds of waste to the largest ox now killed at a Chicago packing-house.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

From Indiana.

EDITORS PRESS:—The RURAL comes regularly, and is indeed a welcome visitor, its contents being perused with great interest. It sounds very strange to us Hoosiers to hear of plowing and sowing wheat at this season of the year. To-day, Dec. 30, we are having a northwestern blizzard. The ground is frozen solid with plenty of snow, and mercury playing hide-and-go-seek with zero.

Christmas was observed in various ways. At some of the churches a Christmas tree, and the fishpond, with hook and line, conducted by Santa Claus, beguiled the evening; while others of the more needy were housed around their fires, enjoying the luxuries of life as best they could afford. This little ragged boy, who had only one dime, would spend a nickel for candy and a nickel for shooting crackers. The jingle of merry sleigh-bells is heard from early morn until late at night by the happy sportsman, scarcely realizing how fast time flits away. But lest I should induce some Californian youths to try a polar climate, I will say no more on this subject.

The State meeting of the Patrons of Husbandry was held in Frankfort, on the 14th, 15th and 16th. Nearly every county in the State was represented. Many topics of interest were discussed, the chief one being monopolies. All agreed that they are a great detriment to the interests of the farmer, and that they will have to go. Am sorry to say that nearly all of the Subordinate Granges in this part have ceased to be—lost their charters and forsaken their Lodge-rooms.

Farmers are busily hauling to market their corn, which was a good yield and of better quality than usual. The poor man is making good use of the snow, hauling wood, bolts, elm, or oak and lin for the stave factory, and occasionally a load of hoop-poles, all which command good prices and are very important factors in keeping soul and body together in this cold clime.

Early seed-wheat has been greatly damaged by the fall fly; but plenty of snow and a favorable March will be of great benefit to these fields.

Hog cholera has been very prevalent in these parts this fall. Many farmers have lost almost their entire raising, which makes corn plenty in the market.

Looking at everything as it now appears, we have no just cause to grumble, but great reason be thankful.

Mrs. Wright's letter in the RURAL of December 18th hits the nail on the head. We have no need of middlemen in this free country of ours. Deduct the percentage that many of our commission travelers get from the retail prices, and it would place many articles beside books within the reach of the poor, which now they never see. God bless the Granger woman for speaking out in meeting!

JACOB HODGEN.

Frankfort, Ind., Dec. 30, 1886.

Resolutions of Respect.

Stockton Grange has passed the following resolutions on the death of Bro. Kuhl:

WHEREAS, Our divine Master has called from this life William Kuhl, a member of Stockton Grange, and of the German Methodist church of this city, a man honest and reliable in business, a neat and practical farmer, who was regular at our meetings till failing health prevented, and who loved our land and laws but kept a strong love for his Fatherland. After wearying months of consumption he has gone from the shortcomings and vexations of earthly doing to the unknown. Therefore

Resolved, That we take heed to our speech and acts, and so deport ourselves that we shall not fear to stand before the Judge of the living and the dead.

Resolved, That we tender to our widowed sister our affectionate sympathy, and commend her to the Father who pitieth His children, and to the daughter and son our regret that they were called to part with a father ere he was yet old, and hope that their thoughts will turn to the end that awaits us all.

Resolved, That these resolutions be spread on our minutes, and a copy be sent to the family, and to the *Patron* and RURAL PRESS.

SISTER W. D. ASHLEY,
BRO. WM. L. OVERHISER,
SISTER C. E. OVERHISER,
NATHAN T. ROOT, Sec'y. Committee.

Stockton, Jan. 22, 1887.

The Grange in Oregon.

The *Willamette Farmer* tells how Salem Grange met on New Year's day for installation of officers, and for a general good time in sympathy with the holiday season. There was a full attendance, with friends from other Granges present. After installing officers, a generous New Year's dinner was partaken of and enjoyed by the help of the general good feeling the Grange cultivates. Salem Grange may be said to have certainly commenced a happy New Year.

In the afternoon an open session was held and the members invited friends to be present and participate in the exercises and discussion of important questions. The matter considered was that of assessment and taxation as it is presented to the present Legislature by the committee that last winter drafted a bill for the purpose. This commission, provided for at the last session, was composed of men from different sections, in various walks of life. They met and considered all points. The bill they drafted will come before the Legislature at this session. It is severely criticised by many and will hardly pass in its present state. Discussion on New Year's day called out many objections and created much interest. The Grange is well represented in both houses at the present session and its influence will be felt in shaping legislation, no doubt with good effect.

Memorial.

Sister Ashley, wife of our respected Bro. George H. Ashley, departed this life Nov. 23, 1886, and was buried at the Live Oak church on Thanksgiving day, by the Woodbridge and Pomona Granges. She was a charter member of Woodbridge Grange and among the first to come forward and help build up the Order that makes us all brothers and sisters. Sister Ashley was the first Lady Assistant Steward, and every year has filled some important office in Woodbridge Grange. Her many friends will remember with peculiar pleasure her and her home, where they always found a glad welcome and plenty of sunshine.

Inasmuch as the messenger of death has entered the home of our respected brother and taken from the family circle the beloved wife and mother, therefore be it

Resolved, That we, the members of Woodbridge Grange, do hereby extend to them our heartfelt sympathy in this their great affliction, and may He who doeth all things well sustain and comfort them in their sorrow.

Resolved, That these resolutions be spread upon the minutes of the Grange and a copy be sent to the *California Patron* and RURAL PRESS for publication.

MRS. W. P. WHITE,
MRS. WM. TREDWAY,
MRS. E. J. MCINTOSH,
Woodbridge, Jan. 18, 1887. Committee.

Yes, thou art gone; but many a trace
Of thee is lingering still—
The badge unworn, the vacant place,
Which thou wast wont to fill.
To meet in the social Grange we come,
But heavy hearts we bear;
We cannot make it seem like home
When thou art wanting there.

We cannot feel that thou hast passed
In the cold grave to lie;
The fearful thought aside we cast,
And deem thou liv'st on high.
The gentle voice that whispered peace
In that dread hour when each alone
Lies where all earthly voices cease,
To tread a pathway all unknown.

O Savior! for thy loving hand,
Reached forth in that dark hour of fear,
To lead us to that blessed land,
We give thee praise and blessing here.
'Tis thine to hear the lonely prayer,
That comes up frequent to thy throne;
Thy merit is the offering there
That saves the faint and trusting one.

There broken links are joined again,
The severed paths once more unite, beyond the shadow and the pain,
As one by one we pass to the unknown.
When the shadows have a little longer grown,
And the ties that bind to earth,
Shall one by one be severed,
Not long apart, but closer drawn,
Soul knit to soul we wander forth
And look on that celestial dawn
Which follows the immortal birth.

MRS. E. J. MCINTOSH.

Grange Elections.*

PLACERVILLE GRANGE.—Installed Jan. 15: Albert Norris, M.; P. J. Isbell, O.; A. S. Cook, L.; J. Waters, C.; Miss Annie Bliss, Sec.; J. P. Allen, T.; A. L. Kramp, S.; Walter Carpenter, A. S.; J. C. Marsh, G. K.; Miss Drusie Allen, F.; Miss Etta Barlow, Ceres; Miss Maggie Springer, P.; Miss Luella Carpenter, L. A. S.

SAN JOSE GRANGE.—Installed Jan. 8: H. G. Keesling, M.; S. P. Sanders, O.; W. C. Kingsbury, L.; Joab Powell, S.; C. Jones, A. S.; Ps G. Keith, C.; G. W. Tarleton, T.; E. T. Pettit, Sec.; F. Dunn, G. K.; Helen Hicks, P.; Mr., S. T. Ingalls, F.; Sister Kingsbury, Ceres; Jennie Sanders, L. A. S.

WALNUT CREEK GRANGE.—Installed Jan. 8: C. Sharp, M.; J. Foster, O.; A. Holbrook, L.; J. W. Jones, S.; J. M. Daley, A. S.; H. P. Dunning, C.; J. Larkey, T.; Miss M. Baker, Sec.; N. Jones, G. K.; Mrs. I. Wagner, P.; Miss E. Kusch, F.; Miss L. Sharp, Ceres; Miss C. Wagner, L. A. S.

*Secretaries, or other officers, are invited to send us lists of officers elected, date of installations, and all other interesting matter for publication.

GRANGE INSTALLATIONS.—Mention is made, in last week's *Patron*, of Santa Rosa installing officers on the 8th....W. L., Flint gives a pleasant account of the initiation and installation at Yuba City, which he attended on the 14th....District Lecturer Loucks, assisted by Bro. Overhiser, W. O. S G., installed Alhambra's officers on the 15th, and gives a good report of that Grange's activity.

Grange Work and Progress.

[Prepared weekly by M. WHITEHEAD, National Lecturer.]

The Grange has made the farmer a thinker; it has made him a man demanding his rights; it has enlarged his views; it has developed his talents; aroused his social nature; made him better morally; brightened his life; beautified his home; increased his income; kept his boys and girls on the farm; given him an honored place among men, and is fast securing him his just rights. Yes, the Grange has a vast influence for good.

During the discussion in Congress a few days since of the bill creating a Department of Agriculture and Labor, with its head as a member of the President's Cabinet, Mr. W. H. Hatch, of Missouri, chairman of the Committee on Agriculture, made a telling speech, in which he used these words: "So long as I hold a seat on this floor, my voice will be raised in behalf of that great body of people, who have demanded, through every organization known to agriculture in this country, that this bill should pass the Congress of the United States. Agriculture has, in the United States, few organizations. We have an organization in this country known as the Grange. It has a national organization, and it has State, county and local organizations. For the past ten years it has spoken at every one of its meetings for the passage of this bill."

Mr. Hatch also said: "Why should the farmers not have it? Why should not one-half of the people of the United States engaged in that great industry which is the foundation of your financial and commercial prosperity, why should they not have it? What would you do for commerce if it were not for agriculture? How much finance would you have in this country if it were not for agriculture? Who produces the balance of trade, which has to-day made the credit of the United States better than that of any other nation on the face of the globe? What use would we have for an interstate commerce bill if it were not to take charge of agriculture? Take out of the commerce between the States, wheat, corn, cotton, tobacco, rice and hogs, and there is not a railroad in the United States to-day upon the roadbed of which grass would not grow inside of six months."

Mr. Hatch made another good point, so often advocated in our Granges: "It is not the man who is appointed to the proposed secretaryship; it is the office, it is the position I contend for. It is the power that a representative of this great industry will have in the Cabinet councils of the country, the power he will have as a member of the Cabinet of the President of the United States. Do you suppose that his councils will be confined simply to agriculture? The agriculturists of this country are interested in something else as well as in tilling the soil and selling its products. They are interested in the tariff question, in the silver question, in finances; they are interested in the proper administration of the powers of the Government; they are to-day the foundation upon which rests not only your prosperity, but the hope of the perpetuity of the Government of the republic."

"This Order of Patrons of Husbandry had its origin in the desire of farmers to secure protection against the rapacity of interests that find in agriculture their chief support, and through insidious aggrandizement of their power become irresponsible oppressors. It was found that in one way or another farm products destined to distant markets were, upon arrival, so burdened with cost that but the poorest earnings could be saved by those whose labor had produced them. For this great wrong partial correction has been made. The highest judicial authority has declared that transportation companies engaged in carrying our products are public servants, and therefore amenable to such regulation as the State may prescribe. Such is the fruit of well-directed effort, inaugurated and sustained by this Order. It is gain that encourages further effort looking to complete regulation of a traffic essential to profitable agriculture."—*W. A. Armstrong, Master New York State Grange.*

We are pleased to note that the agricultural press generally, following in the wake of the *Homestead*, is giving much more attention than formerly to the Grange. This is most encouraging. The Grange is worthy of the fullest attention. And it does wisely in promoting the competitive spirit among journals devoted to agriculture.—*N. E. Homestead.*

Progress.

New Grange.—Ashland, No. 811, Schuylkill county, Pa.

Excelsior Grange, No. 5, of Maine, has 150 members, fine hall, dining-room and store connected; 70 horse stalls in a large stable. Has initiated 33 members this past year and is in a strong, healthy condition.

At a farmers' club-meeting recently held in Nebraska, it was unanimously resolved to change the club into a Grange, and word was sent to National Deputy Whitney to come and perform the work.

Within one week National Deputy Lecturer Whitney has reorganized five Granges in Minnesota, and more are nearly ready to do the same thing.

At the late meeting of the Vermont State Grange all the officers were present and 83 delegates. The secretary's report showed that there are in the State 56 subordinate and 7 Pomona Granges, with a total membership of 2000. Active campaign work is now going on in Vermont.

Brother J. H. Brigham, Master of the Ohio State Grange, writes: "We had a grand gathering at the State Grange, and I think the cause has been materially advanced thereby in Ohio."

The Executive Committee and Secretary of the National Grange have laid before Congress and its appropriate committees the various resolutions and reports of the National Grange, referring to legislation by Congress.

"On then, forward, fearless, onward,
Till our destined task be done,
With the eye of Hope cast sunward,
Tho' our toil be but begun."

THAT RIVERSIDE FROST.—Having learned years ago to put little faith in such sensational telegrams, we did not think it worth while even to mention the woeful story a fortnight or so since about the dire frost-work in Riverside orange groves. Consequently we have not been surprised to find that the damage to the crop was grossly overestimated and is not likely to exceed from two to five per cent.

AGRICULTURAL NOTES.

CALIFORNIA.

Contra Costa.

LATER GRAPES.—Concord *Sun:* Mr. Ike Smith, who owns a handsome vineyard near Clayton, left at the drug store a box of luscious Flame Tokay grapes which he picked from the vines on Thursday morning, 20th inst. This is nothing extraordinary from Pacheco valley.

ALAMO PLOWMEN.—The farmers in the valley have almost completed their plowing, and the grateful showers have been of such great benefit to the hill-lands that plowing and sowing thereon will be unusually lively.

Inyo.

FINE BULLS AND STALLIONS.—*Independent.* W. S. Enos has brought some very valuable stock to Independence. Among the rest are three thoroughbred Durham bulls and ten high-grade bulls. These will all be placed with the herd owned by Mr. Enos. One of the three thoroughbreds is known as Duke of Sacramento; he is a very fine-looking animal and no less can be said of the other two. All are recorded in the herdbooks. The graded animals, except to an expert, appear to be quite as valuable as the others. Perhaps even greater attraction will be found in some horses brought here by Mr. Enos. One of these is by far the most noted blood ever brought into the county. Albenton is a bright bay, without white, foaled April 14, 1883; bred by Leland Stanford, Palo Alto, Cal. He is 16 hands high, and has size, style and finish. Albenton has been handled but little, on account of his age and large size, but showed a quarter as a yearling, close to a 2:40 gait, and received the first premium at the California State Fair, 1885, for the best two-year-old standard trotter, over colts by Sultan and other noted sires. The presence of Albenton will be of great interest to all our horse-breeders and to all lovers of fine horses. Mr. Enos has also brought a first-class Clydesdale stallion. It is his intention to have the best animals of the various breeds, and to aim at producing the very best animals of the several kinds.

BROOMCORN.—Last spring J. J. Smith had some broomcorn planted at Bishop Creek. It made a good crop in quantity and turned out a first-class article for brooms. Some of the broom was sent to S. F. and put on exhibition at the rooms of the State Immigration Association. Competent judges pronounced it first-class. Mr. Smith is now making brooms of the same material, and their superiority to any imported is apparent on comparison.

Lake.

MIDWINTER MILDNESS.—*Clear Lake Press*, Jan. 15: This week we had a sprig of tomato-vine, bearing, blooming and green, as though taken from the garden in midsummer. It came from D. M. Hanson's ranch, a few miles north of town, where roses and geraniums are in perfect bloom at this time. The latter, a tender flower, blooms the year round, out of doors and without any protection whatever. As yet there has not been the least evidence of ice, nor has the frost injured a vine or shrub at Mr. Hanson's, whose place is in Weldon Valley.

Los Angeles.

SCALE-SQUELCHING.—Pomona *Progress*, Jan. 20: The fruit-growers of Pomona valley, without exception, are acting nobly on the bug question. The few trees infected with white scale have been burned. A rigid search by the inspectors has failed to find them anywhere else in the valley. The San Jose scale, however, is quite widespread. One man heard that the inspector would visit him next day, so he chopped down and burned 100 infected trees, and had the whole matter cleaned up before the inspector came. A vigorous campaign has been commenced, which, if continued, will eradicate every bug within a month.

MOVING THE OSTRICHES.—Anaheim *Gazette*, Jan. 22: The ostriches have all been removed to the new farm in North Anaheim. The transfer of the birds was accomplished without mishap, General Manager Northam handling the fragile creatures with an ease and skill which strengthens the suspicion that he is a Madrasee prince in disguise, sojourning in Anaheim temporarily for the benefit of his health. Mr. Atherton, an expert ostrich keeper, will hereafter assist Manager Northam in caring for the farm.

Mono.

SHEEP TAX.—*Inyo Independent:* One of the sheep men who was forced to pay license under the law established by the supervisors of Mono county sued the county to recover the amount of tax paid by him. The case was tried in the Superior Court, and Judge Hakes gave judgment in favor of the county. Should no appeal be taken to the Supreme Court, the sheep license will continue to be collected in Mono county without further trouble. If an appeal should be taken and the law declared to be unconstitutional, all the money collected would have to be returned.

Santa Barbara.

EDITORS PRESS:—This county, in common with other sections of the State, is suffering for lack of rain. Only three small showers have fallen this season, not aggregating an inch altogether, and therefore farmwork is not progressing much. Many farmers have kept the surface of the ground stirred with cultivators

and harrows, thus killing the weeds and saving the little moisture that has fallen. Some grain has been sown, but it is not doing much. The grass growing in the pastures is insignificant and will soon be dry unless rain comes. The city of Santa Barbara is having a decided boom, in consequence of the near approach of the railroad, and many improvements are being made. Business and dwelling-houses are going up rapidly, the principal drawback being the lack of brick. Large brick kilns are now in operation and will soon be able to supply that deficiency. A sewer has just been completed through the principal (State) street, opening into the ocean, at a cost of $15,000. A telephone service has been established by the Bell Telephone Co., and masts are up for the electric lights, which will send their rays abroad as soon as the machinery can be adjusted. A Board of Trade has been organized and proposes to do much for the benefit of the city. The Agricultural Society spent upward of $15,000 in erecting the grand pavilion and constructing the fine race-track, first used for their highly successful fair last autumn. Other societies for the improvement of the place are in active operation. The outlook of both city and county is promising and only needs the rain to fulfill the hopes.—L. B. CADWELL, *Carpinteria, Jan. 23, 1887.*

DIRECTORS CHOSEN.—*Independent:* At the meeting of the Santa Barbara County Agricultural Association, Jan. 8th, the following directors were elected for the ensuing year: Capt. C. P. Low, G. C. Packard, T. C. Nance, Robert Machin, E. C. Roeder, W. B. James, J. C. Hamer, H. B. Brastow, and F. M. Senteney. Captain C. P. Low was elected President of the Board, H. B. Brastow, Secretary, and A. L. Lincoln Treasurer.

San Luis Obispo.

ARROYO GRANDE CABBAGES. — San Luis Obispo *Tribune:* Mr. E. Leedham has again beat the United States upon raising large cabbages, this time of the Waran and Deep Heart varieties, one weighing 74 pounds and the other 77 pounds, for which he received $15 each.

Santa Clara.

BENEFICENT BUGS.—San Jose *Herald*, Jan 19: The days of the scale-bug are numbered, in Santa Clara county at least. The little black bug with two red spots on its back is multiplying fast, and the scale-bug disappears before it like dew before the sun. No matter how thick the scale may be before this little destroyer, behind him the bark is as clean as though there had never been a scale-bug on the tree. These bugs should be protected with the utmost care. They should be picked from the trees before any spraying is done, and returned to their feeding grounds when the spraying is over. In this way they will soon get ahead of the scale because they not only eat it themselves, but multiply at a great rate, and the larvæ eat scale even faster than their parents.

WINTER PRODUCTS.—San Jose *Times*, Jan. 19: J. P. Bubb, who resides in the Lincoln district, eight miles west of this place, has laid on our table ripe tomatoes of superior red and yellow varieties, and also a branch of tomatoes in blossom, and with some on the same branch nearly ripe; also a branch of red peppers in blossom and some green pods. All these are grown in the open air in the valley on the edge of the foothills. He often raises three crops of tomatoes annually from each of his plants and never less than two. He has 21 orange trees, of which 10 are in bearing, that have not suffered from frost, and from one of them he has taken 164 oranges this season. This is only in the third year from the seed. He says they are of excellent flavor, and he will be one among the many exhibitors at the coming fair.

PROFITS FROM PRUNES AND PEACHES.—San Jose *Herald:* The past season the four-year-old prune orchard of Mrs. Mary K. Thompson, about a mile southwest of San Jose, yielded more than seven tons an acre. These were sold at 1¼ cents per pound, and thus yielded the gross sum of $175 an acre. The cost of cultivation, picking and marketing was a little less than $25 an acre, thus leaving a clear profit of $150 an acre. And this, it should always be remembered, was the yield from four-year-old trees, and is therefore not more than half a crop. The crop of Salway peaches raised by Mrs. Dora M. Skinner, who lives about three miles southwest of San Jose, may be taken as another illustration of the profits of last season's fruit-growing. These yielded a little over $4 a tree, or $432 per acre, and the trees were only four years old. The cost of cultivation, picking and marketing, etc., was in this case also about $25, leaving a clear profit of $407 an acre. These are merely isolated instances, the details of which happen to be at hand, but serve to show what can be done on ordinary soil, with ordinary care and attention.

WINTER FLOWERS.—San Jose *Times*, Jan. 25: J. B. Bubb has favored us with an assortment of 15 different varieties of flowers, comprising several of the most delicate and beautiful species. Among them are the heliotrope, sweet william, calla lily, white and yellow marguerites and almond blossoms. All these on our table and many others have been raised in the open air without any special care and with no shelter whatever, eight and a half miles west of the *Times* office on the edge of the foothills.

Santa Cruz.

IN THE CITRUS BOOM.—*Sentinel*, Jan. 22: Fifty orange trees have been planted on O'Neil and Davis' Chestnut Hill ranch, near Boulder. This ranch is located in the thermal belt, about 1200 feet above sea-level, and Nurseryman Meyers, of S. F., says there is no finer soil in the State, not even excepting Los Angeles, to raise oranges than on this ranch, and in the land included in the thermal belt.

Shasta.

SWEET POTATOES.—Cottonwood *Index:* A. J. Logan left a sample of sweet potatoes which he raised without irrigation on his farm about five miles from here, that are large, solid and delicious. They weigh from two to seven and a half pounds each, and are as fine as any produced in the State.

Sonoma.

COUNTY ITEMS.—Telegram from Santa Rosa, Jan. 19: The Water Works Co. has just finished setting out 250 olive trees on the red hill land near the reservoir. Chestnut and walnut trees will also be planted....The wineries in this section are now busy racking off the large yield of wine made last fall. It is of good quality.... Luther Burbank, the nurseryman, has made large shipments of fruit trees recently to New Zealand, China and Florida.

Stanislaus.

GRAIN AND GEESE.—Modesto *News*, Jan. 21: Farmers in the northern part of the county say that grain is looking splendidly, but that geese in immense flocks alight upon it and pull it up by the roots.

Yolo.

RASPBERRIES TO COME.—Woodland *Democrat*, Jan. 20: There were 80 bundles of raspberry cuttings at the depot yesterday, consigned from Oakland to Lusk & Lusk. These cuttings, about 80,000 in all, will be planted on the land recently purchased by these gentlemen on Cache creek. Why raspberries have never been cultivated to any extent hereabout is a mystery. Strawberries and blackberries here grow to perfection, some of the largest in the world being exhibited each year. There is no shadow of a doubt that the berry will grow in Yolo county, and especially on Cache creek.

ARIZONA.

IMPROVEMENTS NEAR PHŒNIX. — EDITORS PRESS: Water was let into the Arizona canal on the 8th inst. and is now running through its entire length, 35 miles. A colony from Peoria, Ill., has been started 10 miles N. W. of Phœnix, under the above canal, and a town already projected at that point. One section of land under the Arizona canal was sold last week to a Los Angeles party for $9800, with water right. This land was desert a few months ago, and I give this item to show the appreciation of such property. California and Eastern people are buying extensively under the old and new canals. One Los Angeles firm has bought over $100,000 worth of property under the old canals within the past six months. On completion of our railroad we look for the establishment of several manufacturing enterprises. Our city was lighted with gas two weeks ago, and a street railroad enterprise started, with franchise from the city and forfeiture of $5000 if the road is not completed within 12 months.—G. W. I., *Phœnix.*

NEVADA.

A SNUG FARM.—Reno *Gazette*, Jan. 22: D. Angelo, an Italian farmer, has a 40-acre lot near Steamboat Springs, of which two and a half acres are fenced off for a garden and dooryard. Off this little patch he has raised in the last year 100 tons of hay, 100 tons of potatoes and 71 sacks of wheat, netting him $3200 in cash. Besides this, he raised chickens, pigs, vegetables, and kept some cows.

A Triple Calla.

Beside the other friends who have favored us with accounts, and, in some instances, specimens also, of double callas, within the last three weeks, Mrs. A. E. Swift, of Dry Creek, Sacramento county, writes us as follows: "In the month of September I had a clump of callas that threw up three blooms at the same time; two of them were like the one described by you, and one was triple with three spathes on a single stem and an ordinary spadix. All were perfect and very handsome. It was an unusual time of the year for callas to bloom in this part of the State. They were seen by a number of persons, and all remarked they had never seen a double or triple calla before."

ORANGE-CLEANER.—A reader of the RURAL in Chicago writes us that he has made diligent search for the orange-cleaning arrangement which Amory Bigelow wrote us that he had set up at 105 South Water street, Chicago, and which he said would clean two carloads per day. This reader of the RURAL could find nothing of the sort, though he made much inquiry for it of those in authority at the place named. He also inquired of employes of the concern, and the only orange-cleaner they knew of about the premises was a barrel of sawdust. We do not know anything more about the matter either way. We balance one statement against the other.

THE proposed constitutional amendment in favor of woman suffrage was defeated in the U. S. Senate Jan. 25th by a vote of 16 to 34.

IN the Nevada Legislature, a bill disqualifying State officers who are addicted to tippling is under discussion.

Interstate Commerce.

Important Sections of the New Law by Congress.

The principal provisions of the Interstate Commerce bill, as it passed the Senate and the House of Representatives, are embraced in the following sections:

The first section applies the provisions of the Act to any common carrier engaged in the transportation of passengers wholly by railroads or partly by railroads and partly by water, when both are used under common control, management or arrangement through more than one State or Territory or from any place in the United States to any adjacent foreign country. It defines the term "railroad" to include all bridges and ferries used or operated by any railroad. All charges made for any service rendered in the transportation of passengers or property shall be reasonable and just, and every unjust and unreasonable charge for such service is prohibited and declared to be unlawful.

Section 2 makes it unlawful for any common carrier, subject to the provisions of this Act, to charge, demand, collect or receive, directly or indirectly, from any person or persons, greater or less compensation for any service rendered in the transporting of passengers or property than it charges, demands, collects or receives from any other person or persons for doing him or them a like and contemporaneous service in the transportation of a like kind of traffic under substantially similar circumstances and conditions.

Section 3 makes it unlawful for any common carrier, subject to the provisions of this Act, to make or give any undue or unreasonable preference or advantage to any particular persons, company, firm, corporation or locality or any particular description of traffic. Every common carrier, subject to the provisions of this act, shall, according to its respective power, afford all reasonable, proper and equal facilities for the interchange of traffic between its respective line, and for receiving, forwarding and delivering passengers and property to and from the several lines and those connecting therewith, and shall not discriminate in their rates and charges between such connecting lines.

Sections 4 and 5 (the long and short haul and pooling sections) are as follows:

SEC. 4. That it shall be unlawful for any common carrier, subject to the provisions of this Act, to charge or receive any greater compensation in the aggregate for the transportation of passengers, or of like kind of property, under substantially similar circumstances and conditions, for a shorter than for a longer distance over the same line, in the same direction, the shorter being included within the longer distance; but this shall not be construed as authorizing any common carrier within the terms of this Act to charge and receive as great a compensation for a shorter as for a longer distance; provided, however, that upon the application to the commission appointed under the provisions of this Act, such common carrier may, in special cases, after an investigation by the commission, be authorized to charge less for longer than for shorter distances for the transportation of passengers and property; and the commission may, from time to time, prescribe the extent to which such designated common carrier may be relieved from the operation of this section of the Act.

SEC. 5. That it shall be unlawful for any common carrier, subject to the provisions of this Act, to enter into any contract, agreement or combination with any other common carrier or carriers, for the pooling of freights of different and competing railroads, or to divide between them the aggregate or net proceeds of the earnings of such railroads, or any portion thereof; and in any case of an agreement for the pooling of freight, as before said, each day of its continuance shall be deemed a separate offense.

Section 6 requires that after 90 days from the passage of the Act, every common carrier subject to its provisions shall have printed, and keep for public inspection, schedules showing its rates, fares, and charges, and, in addition to requiring railroads to give publicity at all of their depots on their several lines it gives authority to the commission, where it is proper and necessary, to require them to give publicity to the rates to other places beyond the lines of their several railroads. It also provides that rates, fares and charges shall not be raised except after 10 days of public notice, but that they may be reduced without previous public notice. The notice, however, shall be simultaneous with the reduction itself.

Section 7 makes it unlawful for any common carrier to enter into any combination or agreement to prevent the carriage of freights from being continuous from the place of shipment to the place of destination.

Section 8 declares that any common carrier violating the provisions of the Act shall be liable to any person or persons injured thereby, for the full amount of damages sustained in consequence of any such violation, together with reasonable counsel or attorney fee.

Section 9 provides that persons claiming to have been damaged by the action of common carriers may proceed for the recovery of their damages, either in the courts of the United States or before the commission herein provided for; but not before both tribunals.

Section 10 makes it a penal offense to violate any of the provisions of this Act, and puts the maximum fine which may be imposed at the sum of $5000.

The 11 following sections contain the commission features of the bill. They provide for a commission to consist of five persons, whose term of office shall be for six years, except for the first appointments, which are to be for two, three, four, five and six years. The members of this commission are to be appointed by the President, by and with the advice and consent of the Senate. Their principal office shall be in Washington, but they may hold sessions at other places than Washington, and a single member of the commission may take testimony anywhere, as may be directed by the commission. These commissioners are to have salaries of $7500 each. The commission has power to appoint a secretary, with an annual salary of $3500, and has authority to employ and fix the compensation of such other employes as it may find necessary to the proper performance of its duties, subject to the approval of the secretary of the interior.

Section 22 provides that nothing contained in this Act shall abridge the remedies now existing at common law or by the statute.

Section 23 appropriates $100,000 for the purposes of this Act for the fiscal year ending June 30, 1888.

Section 24 provides that the provisions of Sections 11 and 18 of this Act, relating to the appointment and organization of the commission herein provided for, shall take effect immediately, and the remaining provisions of this Act shall take effect 60 days after its passage.

THE PUBLIC LANDS.

Government Land.

EDITORS PRESS:—Among many people the idea seems to be prevalent that at the present time there are no public lands in this State worth filing on, and for the purpose of persuading them to the contrary I would like to say a few words about the Government lands in a certain part of Fresno county.

The San Joaquin & Yosemite Valley railroad now terminates at Raymond, 21 miles from Berenda, a station on the Southern Pacific road. This railroad (the S. J. & Y. V.), by the way, has been surveyed through to "Wawona," 54 miles from Berenda, and, it is understood, will soon be finished as far as surveyed, thus shortening the stage travel over that line on a trip to the Yosemite valley. Raymond is at present barely more than a railroad station to all appearance, but Wells, Fargo & Co. have an office there, a large warehouse, and a few small dwellings can be seen, and a postoffice in the near future is an assured fact. Buchanan, seven miles west of Raymond, is the present nearest postoffice.

In the near vicinity of Raymond, say from two miles out, there is still Government land to be had for filing on. The valuation is $1.25 per acre. It is rolling land, and is, or at least all that I have seen is, composed of decomposed granite, light in color, but not light in quality. Much of it is thickly covered with white oak timber, and all of it bears some white oak and some chaparral; that quarter section I filed on has, it is estimated by a competent man, about 3000 cords of white oak on it. The same man told me when I entered my claim, last May, that it was worth about 50 cents per cord net. No more land can be found with quite as much timber on it, but from a comparison I will venture to say there are still quarter sections near there from which can be cut 1500 or 2000 cords.

One family has been living there 25 years, and seem to be doing well. They raise grain and cattle for market, fruits and vegetables for their own use, and say they like it there.

The climate is agreeable; very seldom is fog seen, and, although the thermometer registers from 80 to 90 through the summer, it is the testimony of a sister of mine who moved down there last August from Oakland, that none of her family felt the heat as much as they did in Oakland. The explanation is probably this: It is a *dry* heat, there not being that heavy, sea-saturated atmosphere found along the coast, so that 90 degrees at Raymond are felt no more than 80 in Oakland. The Sierra Nevada mountains, snow-capped most of the year, are in sight from almost any point, and I am told that in winter a little snow usually falls in Raymond, though so far none has fallen this season.

It is believed that irrigation will not be necessary in order to raise trees or even grapevines, though it will take time to ascertain to a certainty. Schoolhouses are not far off, say from two to three miles. A Protestant minister, graduate of Yale Seminary, lives there and frequently holds public services, and intends to preach regularly as soon as may be possible.

I will be pleased to correspond with any one who may think of taking a trip down there with the intention of settling, merely requiring that correspondents inclose necessary postage.

CHARLES P. NETTLETON.

Haywards, Alameda Co.

NO ACCOUNTING FOR TASTES.—It is said that a bird-dog, owned at San Miguel, appears to consider tarantulas a great delicacy, as he hunts for them eagerly and gulps them down with gusto, and the diet appears to agree with him.



"Give Us a Call."

[Suggested by seeing these words in a saloon advertisement.]

Give us a call! We keep good beer,
Wine, brandy, gin and whisky here;
Our doors are open to boys and men,
And even to women, now and then.
We lighten their purses, we taint their breaths,
We swell up the columns of awful deaths.
All kinds of crimes
We sell for dimes
In our sugared poisons, so sweet to taste;
If you've money, position, or time to waste,
Give us a call.

Give us a call! In a pint of gin
We sell you more wickedness, shame and sin
Than a score of clergymen, preaching all day,
From dawn to darkness, could preach away;
And in our beer (though it may take longer
To get a man drunk than drinks that are stronger),
We sell our property, shame and woe;
Who wants to purchase? Our prices are low.
Give us a call.

Give us a call! We'll dull your brains,
We'll give you headaches and racking pains,
We'll make you old while you yet are young,
To lies and slanders we'll turn your tongue.
We'll make you shirk
From useful work,
Make theft and forgery seem fair play,
And murder a pastime sure to pay.
Give us a call.

Give us a call! We are cunning and wise;
We are bound to succeed, for we advertise
In the family papers, the journals that claim
To be pure in morals and fair of fame.
Husbands, brothers, and sons will read
Our kind invitation, and some will heed
And give us a call; we pay for all
The space in the papers we occupy.
And there's little in life that money won't buy.
If you would go down in the world, and not up,
If you would be slain by the snake in the cup,
Or lose your soul
In the flowing bowl,
If you covet shame, and a blasted name,
Give us a call.

—*Ella Wheeler.*

The Senator's Daughter.

CHAPTER IV.

[Written for the RURAL PRESS by SARAH CAMPBELL SANFORD.]

Father read the letter through to the end, then rose and walked the floor in an agony of mind. His head dropped forward on his breast, and his hands moved nervously. After a few moments of pacing back and forth in silence, I said: "Speak to me, father."

"What can I say? My God! words are too feeble. Nothing short of dashing my brains out would suffice. Oh, this is the hardest! My only son despises me, loathes my very profession. Margaret, you are indeed avenged. Now I realize, if never before, that

"'Our deeds travel with us from afar,
And what we have been makes us what we are.'

"Do you hear, girl—everything you do or say daily will return to you in your old age either to bless or to curse you? 'Stabbed to the heart,' my Margaret! Ah, I know it, I know it;' but to have my son tell me of it! oh, what gall and wormwood! The iron is burning my very life away! My boy, Margaret's baby, with her eyes, her bonny face, despising me! Take this cup from me! It is more than I can bear. Madge, go away a little while; I cannot have even you witness my humiliation."

"Father, before I go, promise me you will do nothing rash, desperate." In my earnestness I went up to him, put my hands on both his shoulders (I was a tall girl, almost as tall as my father), and looked into the thoughts that were mirrored in his eyes.

"Am I necessary to your happiness? Is it just pity for my wretchedness, or do you really love me?"

"Don't hurt me so, father! You must know how I love and honor you, and, more than that, I am proud every day of such a grand, noble father. It would kill me to have anything happen to you." And then the sobs and tears came.

Father stroked my hair and soothed me as I cried on his shoulder. I felt convulsive emotion shake his frame as he supported me. Tears seem to be natural to womankind, but when they are wrung from strong men they fill one with awe. My tears were frightened back by his grief, and I ventured to say:

"Papa, the same pen that wrote 'Our deeds travel with us from afar' wrote, in another place, 'We reap what we sow; but nature has love over and above that justice, and gives us shadow and blossom and fruit that spring from no planting of ours.'"

"Yes, my child, you have saved me once more. I will look up and put the past behind me, and press forward, and try to redeem my life from utter worthlessness. But I cannot discuss this letter now—take it away. I'll come to you in a short time, stronger and better, I hope."

I felt that I could leave him in safety, so I sought my own room, but did not find Jessie. Upon inquiry I found she had gone out to spend the night. Her fine intuition taught her that no human eye should witness this sorrow.

Father did not leave the study until after midnight, but he tapped on my door to say good-night in his pleasant way; so I felt the worst of the storm was over.

At the breakfast-table, the following morning, I noticed that age was creeping on him. He looked worn and haggard, his hand shook when I reached him his coffee; and surely there never were so many gray hairs before.

Our breakfast was late, and before we left the table Jessie came in with the morning mail. Father had all the letters and was soon absorbed in their contents, while Jessie entertained me with some bits of gossip.

At last father said, tossing me a letter, "That will interest you, I guess," and, rising, he left the room.

The letter, signed by a number of prominent gentlemen, tendered father the nomination for the office of Judge of the Circuit Court. Of course I was delightfully surprised, but Jessie said it was no news to her; she had heard it talked about ever since mother died. Jessie and I sought him in the library with congratulations.

"But what shall I do without my mentor? I shall have to be away from home much of the time."

This was a damper on my ardor, but after a moment's hesitation I answered:

"Where you go, I go; your people shall be my people, your home my home, even if it be a poky old hotel."

He drew me to him and said: "All I am, or ever shall be, is due to you, my daughter."

How sweet those words were to me! As he kissed me, Jessie said: "And me too, me too."

He laughingly bent to the lovely face which barely reached my shoulder. "You're very sweet, but there isn't half enough of you," he remarked.

"Oh, valuable articles are done up in small packages, sir."

So Jessie saved us from strong emotion, and in her own sweet way calmed the troubled waters.

During the day, Jessie asked me if I had answered Alvar's letter. I replied in the negative, and suddenly remembered I had made no plea for the boy. What should I do? I could not broach the dreadful subject again. At last I said I would wait until he came home and let circumstances shape themselves. But Jessie said the letter must be answered at once. After a little musing she announced her determination to speak to father herself. What argument she used, I know not. She drove to the office and took him out under the very tree where he quoted from Emerson, and brought some argument to bear that resulted in the following letter:

MY DEAR BOY: God forbid there should be anything between us. Help me to tear it down. I know I deserve nothing but contempt at your hands; but you are too like your mother, the one woman in all the world to me. Bear this in mind, my son—notwithstanding the wrong I have done her, her memory is like a bunch of fragrant violets in the heat and turmoil of every-day life. You have her eyes, her hair, her features, her very expression; and, although a glance of your eye at times cuts to the quick, yet your sweet face is as dear to me as life itself. You are so much to me that my ambition and pride are swept aside [and you will probably never know how strong and overweening that ambition is in my race]. Follow any calling, do anything you wish, only try to learn to love

YOUR FATHER.

I added a brief postscript telling him to hasten home. The next week he came. After hurriedly greeting me, he inquired for father, who was in the library, where he sought him. When the tea-bell rang they entered the dining-room together. Hope and joy shone on one face, resignation and peace upon the other. My heart beat with gladness at the reconciliation. But, to be honest, I must admit that I hoped the learning of a trade would be given up, and something more in keeping with his station in life (as I was pleased to term it) be substituted. I was doomed to disappointment, however. Alvar stood high in his examinations; but, instead of entering college with his class, he engaged himself to a master carpenter for six months. He said he was tired of books, and believed that working hard for awhile would so improve his health that he would gain in his studies in the end. He also said he thought a man made a better farmer and mechanic for having a good education, and that man or boy who thinks, because he has some book-learning, he must not do manual labor, is very weak and foolish, and exposes to the world his superficial education and character.

I think the boy must have endured a great deal of chaff at the hands of his fellow-workmen, but he bore it in silence and, I am sure, did the other boys good in time. I often saw one or more of them coming to his room evenings and Sundays.

The Stanhopes returned, and we lost Jessie from our home circle. In fact, the circle was broken up, father was so occupied with the political canvass, and, after his election, in attending court. I always accompanied him, and consequently saw very little of my old friends.

This sort of vagrancy I enjoyed. Father's speeches were always interesting to me, and I thrilled at the applause which frequently interrupted him. As a stump speaker, few excelled him. On the bench he seemed equally at home, but the courtroom held few attractions for me. I often looked in some time during the day, but the everlasting quibbling and contradicting was very tiresome to me. How father could sit there day after day through such little, mean, contemptible wrangling, I could never understand. When the weather permitted we would take a drive, so that he could have a breath of fresh air before supper. Then we spent our evenings very pleasantly together.

Of course father had a great deal of company; gentlemen would sometimes flock into our parlor until he held quite a reception. I would retreat to my corner and fancy-work. (What would we women do without bright wools and filmy lace to occupy our fingers when topics are introduced which are supposed to be too weighty for feminine minds?)

Father and I led this sort of life about two years, when an urgent invitation came from Mrs. Stanhope for me to accompany them to Europe. Earl was about to graduate. After seeing him take his diploma, they would spend a year or two in journeying through Europe. The route was partly laid out in the letter. They would spend the warm months in the Alps, but would winter at Rome.

Rome! It fairly took my breath! Should I, Madge Wilton, stand within St. Peter's and gaze upon the awful monuments of generations and empires? Of course we would visit Naples and climb Vesuvius, and perhaps peer into the crater. Then Pompeii! Ever since reading Bulwer's "Last Days of Pompeii" I have dreamed about that city of death. Who knows? Perhaps we would happen to be there when some excavation was being made. Perhaps I should see some wonderful new thing uncovered from the ashes and lava. Then the city of Florence, the birthplace of Dante, Michael Angelo, Galileo, and visit the wonderful Duomo, where the great Savonarola preached. We must see Sorrento, where Tasso lived. Oh, how delighted I was at the very thought!

All at once my wardrobe came into my mind. Ancient and modern history vanished. My thoughts went on at lightning speed. My traveling dress should be that lovely shade of gray, "moonlight on the lake," and the new hat I had seen just the day before, with its long curling feathers of the same fashionable tint. Oh, yes, I would be very stylish and a credit to the party.

We happened to be at home; so I ran to my room and turned over the contents of bureaus and trunks in wild confusion. I even dragged out my traveling trunk and began to decide what to pack, and had about concluded to buy nothing but my traveling suit, and replenish my wardrobe at the quaint old shops in the Old World, when I heard father's step in the hall below and his voice asking for me.

I sprang to my feet at the sound, ran to the mirror and gazed long at my reflection. I knew he would raise no objection to my going, and I so *wanted* to go. But what would he do without me? I dared not meet him just then; I feared he would discover my strong desire, and that would make it so much harder to say no. Besides, I wasn't quite ready to say no. There was a hard battle to be fought with myself before meeting him. So I slipped down the back stairs and out the side gate.

[TO BE CONTINUED.]

As to Escorts.

EDITORS PRESS:—It was in evidence in a recent and noted murder trial in this city that the daughter had been permitted to go out late at night in company with a man with whom the parents were entirely and absolutely unacquainted; that they knew nothing of his antecedents, his parentage, his social standing, or the *bent* of his character; that when he came home with the daughter he was shot down at the door by her father.

Nothing herein is intended as a commentary on the question of insanity or guilt of the defendant, or on the character of the deceased.

The fact of permitting a *stranger* to escort a daughter is the one that calls for consideration. The question is put bluntly to parents: Is this a general custom? If so, in the name of woman's virtue and man's honor, abolish the custom. What can be expected? When such callous indifference to parental responsibility becomes general, then consequences which suggest themselves to all must come. Not only will the home be dishonored, but the moral tone of society is lowered.

It is submitted that these rules should be followed:

First. Parents ought not to permit a daughter to keep company with one whom they think in any way unfit to become their son-in-law, and they should diligently, but decently, inquire as to his antecedents.

Second. The daughter should fully ascertain whether a proposed escort has such character as would justify her in becoming his wife, if she should come to love him. It is entirely *too late* to make such determination after the affections are sufficiently potent to sway the judgment.

Third. Before presuming to ask the young lady for the honor of her company, let the gentleman obtain the consent of the father or mother or guardian, that he may be welcome to attend the daughter. In obtaining this privilege from the parents there is nothing indelicate. It is a manly recognition of the position of the parents. It is respectful to the lady and worthy of one's own honor. J. T. R.

S. F., Jan. 13, 1887.

Midwinter in Napa County, California.

[Written for the RURAL PRESS by MALLIE STAFFORD.]

The present is one of the most delightful winters we have known for many years, and if we can trust a memory which looks back over many long years, we think that so far we have never experienced a more genial and lovely winter. Some uneasiness is being felt in the farming community as to the result and success of crops, but this is always the case when the winter rains are backward or delayed. It is an unnecessary "borrowing of trouble"—a desire to "cross the river before we reach it." Enough rain has fallen in many sections to insure good plowing, which is being steadily pursued, many having their grain all in. There is still plenty of time for generous rains, and experience has tanght the California farmer that with sufficient early rains to enable him to put in his crop, if after January a reasonable supply of rain is distributed through the months until May, the result is almost always a bountiful yield; therefore we wait and work, with hope and trust in the Giver of all good for the bountiful rains, which, though delayed, will doubtless come in their own good time.

Despite the general wish for rain, one cannot but revel in the glory of the weather. Where, but in California, are such beautiful skies in midwinter—such warm, bright sunshine, glowing sunsets, with just enough clouds to gild the firmament with roseate hues, with gold and amber and crimson dyes?

The gentle rains, warm sunshine and balmy air have deftly covered the earth with a carpet of green, while the hills and vales are abloom with flowers. The manzanitas are white with their clusters of fragrant flowers, where the honey bee, for which, and the California farmer, there is never any rest in this sunshiny climate, is droning its endless and monotonous murmur among the dense blossoms, shaking them down until the green grass is thickly studded with the snowy blossoms. It all inspires one with a feeling of lazy content, and it is difficult to believe it is midwinter and not spring. Lingering in the garden walk, we smell the sweet perfume of the violets, the different varieties and colors of ever-blooming roses, waving amid their green foliage, the endless varieties and colors of geraniums and fuchsias, growing in the open garden—calla lilies, narcissus, all growing and blooming in the open garden; note the gay linnet perched amid the glossy leaves of the orange tree, and afar, wild and clear and sweetest of bird songs to me, comes the thrilling carol of the lark as he swings on the old oak in the meadow. Turning an angle in the path, we visit the vegetable garden, where the strawberry plants are in blossom, the raspberries are not only blooming but bearing their red, juicy fruit. There are ripe tomatoes still on the green vines, and further on the attention is arrested by a tobacco plant, six feet in hight, full leaved and covered with pink blossoms, "the sweet tobacco posy," and also bearing ripe seed pods. If we had lately been exhumed—Rip Van Winkle like—we might be led to remark: "What a nice cool day for summer!"

For the sake of those who live in the unkindly climes of frost and snow and merciless blizzards, we will just say that this is no overdrawn picture. Pen cannot portray it half so sweet and lovely as it is.

There have been many overdrawn pictures and misrepresentations about other portions of the State, written for bombast and speculation, and which are to be greatly condemned, inasmuch as in many instances they have been productive of much evil and misery. In writing the above true sketch as I see it at my own home, I have no object other than to portray the beauties of a climate and soil, the glory of a certain section, which, to those unaccustomed to such climatic influences, would seem almost marvelous; and while we cannot boast of the same in all portions of the State, there are many beautiful valleys and sunny mountain slopes like this, where the change from winter to spring is so imperceptible as scarcely to be recognized save by the month, where winter is scarcely recognized only by the falling leaves, the return of the rains, and in consequence the reappearance of green grass and hardy flowers.

Arcadian Hights, Napa Co., Jan. 10.

IT is told of Gambetta that once when in the heyday of his power, when he went to some agricultural department to oust a reactionary candidate in favor of one of his friends, he inquired about the agriculturists' wants. "We are sadly in need of rain," came the answer. "I'll see about it when I get to Paris," promised Gambetta. And his listeners believed in his promise. The record runs that the rain came down in torrents a day or two after, and that when the reactionary candidate presented himself he was hooted at. "Let your party do as much for us as Gambetta, and we'll elect you," they said.

Be Kind to Your Mother.

[Written for the RURAL PRESS by ELSIE ANGE.]

Ida Meadows is a favorite with her friends. She is beautiful and charming, and delights every one she meets with her wit, vivacity and intelligence. No company can be dull if she be present, yet there is a flaw in her character that has always given me pain: *She is rude to her mother.*

This grievous fault seems all the more inexcusable because Ada is uniformly pleasant and polite with others and wins the approbation of elderly ladies by her tender deference and her respectful demeanor. Yet how different her conduct toward her own mother! If Ada is entertaining callers and Mrs. Meadows enters the room there is at once a marked change in the demeanor of the former. She treats her mother as though she is an intruder, and a very unwelcome one. If she succeeds in freezing her out of the room, Ada is her own beaming, charming self again and is apparently unconscious that she has wounded that loving heart which seeks to hide its grief in loneliness. Perhaps Mrs. Meadows, cheered by the kindly greetings of their friends, concludes to remain and enjoy their society. Then Ada loses no opportunity of snubbing her, showing contempt for her opinions, or she wholly ignores her presence.

This picture of a daughter's unfilial conduct toward a gentle, sensitive mother is a very sad one. But is not this fault entirely too common? How few daughters are as kind as they ought to be! Sometimes the mother is not fashionable, or her language is not always correct, or she has rough hands that show a closer intimacy with household duties than literary pursuits, and Miss Dainty is ashamed of the parent who sees that *she* is well dressed, and accomplished, and white handed. Many a mother's heart aches in secret over the rudeness and ingratitude of some favored child; and often the daughter's eyes are opened to her own shortcomings when it is too late to make reparation, and she says tearfully: "How could I have been so blind when my dear mother was here not to appreciate her value? In how many ways I could have cheered and helped her; but I was too thoughtless, too selfish, too much engrossed in my own pursuits, to give a thought to my best earthly friend!" How pleasant it is to turn to a brighter picture—that of filial love!

"My mother is queen," said a very intelligent woman to me recently. "Mother has the best room, and the best chair, and the best of everything. When we are all at home, my brothers and myself, we vie with each other in paying her homage. Yes, mother is our queen."

"That is as it should be," I answered.

"Be kind to thy mother, for lo! on her brow
May traces of sorrow be seen;
Oh, well may'st thou cherish and comfort her now,
For loving and kind hath she been.
Remember thy mother, for thee will she pray
As long as God giveth her breath;
With accents of kindness, then, cheer her lone way,
E'en to the dark valley of death."

SHALL THE STATE RUN A GAMBLING-HOUSE?—The Louisiana lottery gobbles up over $100,000 every month in this State, and certain newspapers, which attach greater importance to money than to morals, are agitating the establishment of a home lottery. The Colusa *Herald* meets this proposition with the following sound talk: It seems to us that the only argument in favor of this proposition is that thousands of dollars which now go out of the State each month will be kept at home. Then the question arises: Will it stay at home? It is a fact that at least $500 a month goes from Colusa county to Louisiana. A home lottery would inspire more people with confidence in its honesty, and would not the result be that the same $500 would go to the new institution? Legalize gambling and we would soon have a State full of gamblers. If a bill pass establishing a State lottery, another law might as well be enacted licensing faro games. The dealer in a square faro game does not have one-tenth the percentage that the management of the Louisiana lottery does, and there would be no justice in withholding the protection of the law from one if the other were legalized. Other games would quickly claim the benefit of such a law, and an appalling harvest of blasted prospects, ruined homes and suicides would be reaped. California cannot afford to try the experiment.—*Marin Journal.*

RECONSTRUCTION OF ANCIENT PERFUMES.—Two ancient Egyptian perfumes have been reconstituted through the researches of a young French professor at Lyons, who has devoted himself to studying Egyptian sepulture and the plants of the Nile valley. By hunting through the papyrus texts and the inscriptions on the walls of the temple lavatories, he has found the receipts for the manufacture of "tasi" and "kyphi." The former was a temple perfume, used to anoint the statues of the Egyptian Venus. "Kyphi" was more important, and, beside being used at home for the rites of Isis and Serapis, was imported into Greece and Rome after the conquest of Egypt. It then became the favorite perfume among the luxurious Greeks and Romans, who were anointed with "kyphi" after the bath and were sprinkled with the essence during the grand banquets, while sometimes it was used to perfume the wine.

YOUNG FOLKS' COLUMN.

Samuel Gregg, Jr.



GREGG, Jr., was a very shiftless, untidy boy. Samuel stood by the woodpile on the Gregg ranch one morning not long ago, lazily yawning and wondering how he could best do something real horrible. He had an inward yearning to soil his clothes and make them look just as bad as he could, so that he might "s'prise" his "ma" when he went in to lunch.

In the adjoining illustration we have endeavored to portray Samuel Gregg, Jr., poised in all his wealth of childish grace and unkempt hair, before an artless young thing—a sad-eyed orphan turkey. The apparent ill-proportion of the orphan turklet, I wish to observe, is the result of the youthful imagination of Gregg, Jr., who thinks he has met some very formidable foe. It may be noticed, too, that there is a sort of startled-fawn look about the little turklet. Evidently one is afraid and the other is impressed with fear. The turkey is the first to retreat, however, which it does in a very undignified manner.



In this illustration Samuel may be seen following at a lively run. The young pup Terry joins, interestedly, in the chase. You can tell that the pup is interested by the poise of his tail.



Samuel finds the sad-eyed orphan is no slouch of a runner, and he speeds on after him, leaving Terry far behind.

It is somewhat evident by the next drawing that Gregg, Jr., is mad because of the manner in which that gangling raw-boned turklet flees his grasp. He just spreads out and yearns and pants and reaches for that turklet in a way that makes the little orphan's heart sink within it.

And here below we have the catastrophe. He never knew exactly how it happened, but somehow just when he had the panting, terrified little bunch of bone and pin feathers within his grasp, Gregg, Jr., stumbled and fell, and the young turkey made good its escape.

Samuel skinned his hands pretty badly, and plowed the ground for about two feet with his cunning little nose, and filled his mouth with a good deal more dirt and sand than he knew what to do with. It was evident from his appearance that his intent to "soil his clothes and make them look just as bad as he could" had been a towering success. Sadly he returned home. To this day, I think, there is a doubt in Samuel's mind as to which "s'prise" resulted the more favorably—the one he gave his mother when he reached home or the one she gave him when he presented himself for inspection.—*The Wasp.*

The Baby's Find.

Three tiny, ragged boys were playing together in the sunshine, Thursday, on a sidewalk near one of the North End railway stations. A fourth youngster came up, his eyes glistening with pleasure, his dirty face proud with delight. "O boys!" he cried, "I've found a tin-cint piece!"

The others crowded around, and discussed the treasure excitedly. Then they sat down on the curbstone to compare reminiscences of recent lucky finds.

"I foun' 'mos' a hull piece of a top yesterday," said one.

"I foun' a big bone in our alley, a n'orful big bone!" said a second; "'n' I'm goin' to make a jumper out of it."

The youngest child—the very dirtiest, smallest, thinnest baby that ever walked—had listened with a smile of perfect content; and now he chimed in, in a tone whose pride and joy no words can convey:—

"Thith mornin', I foun' a peanut!"—*Christian Union.*

"MADAME," he began, as he lifted his hat at the front door, "I am soliciting for home charities. We have hundreds of ragged and rude children like those at your gate, and our object is"—"Sir, those are my own children." And the front door was violently slammed to.





A LITTLE city boy, who had just returned from his first visit on a farm, gave this description of butter-making: "You ought to see how Auntie makes butter with a barrel and a broomstick!"

ARTIFICIAL COCAINE is said to have been recently prepared, which is alleged to possess all the reactions of the natural product.

DOMESTIC ECONOMY.

Suggestions.

EDITORS PRESS:—With many thanks for the nice recipes in the valued RURAL, I send another: To clean windows, dip a soft sponge in the best kerosene, rub the window-panes with it, and polish them with tissue paper.

To copy designs, the easiest way is to trace in pencil the design on tarletan, then place the tarletan, pencil side up, on the material; pin the edges tightly over a board, and mark strongly in pencil upon the design, transferring it to the material.

To paint with "dye colors" on glass or silk or bolting cloth, use common oil colors diluted with turpentine. One color is best, say Vandyck brown on "shrimp-pink" silk; stretch the silk and put blotting paper under. Water colors can also be used on the thin India silks for window-screens, fire-screens, window panels, sash curtains and picture scarfs; but oil colors do not fade as water colors will if they be exposed to the air. K. S. B.

San Francisco.

STEWED BEEF.—Cut the beef into inch-square pieces; flour each; cut a small carrot, a small turnip and a large onion into slices, put the fat you trimmed off into a deep spider or saucepan, let it get very hot, lay in the vegetables, cover and leave them to brown (not burn), stirring occasionally. When they are all nicely browned, pour on them a pint of boiling water, and lay in the meat; put with it a moderate teaspoonful of salt and one-half saltspoonful of pepper, with two or three coarse stalks of celery, if you have them, cut fine. Let all stew very gently for two hours at least, or until the meat is quite tender, but remember, if it has boiled or stewed fast, it will never be that, nor would it if you made your stew of tenderloin. Skim free from fat and serve.

MUTTON BROTH.—One pound lean mutton, cut small, two pounds mutton bones, well cracked, two quarts cold water, chopped onion and parsley, salt and pepper. Let the meat, bones and onion simmer slowly several hours. Season and set aside until cold. Remove all the fat and strain out the bones and meat, squeezing out every drop of soup. Have ready half a cupful of rice, which has been soaked in a little cold water for two hours. Add this to the soup, put them on the stove and let them simmer until the rice is soft and broken. Add the chopped parsley and milk, which should have been heated to scalding in another vessel.

BOILED RICE WITH CHEESE.—Wash a cupful of raw rice in cold water, picking it over carefully. Put over the fire in two quarts of water that is boiling hard at the time. Salt slightly and cook 20 minutes, shaking the saucepan occasionally, but never stirring it. Ascertain if the rice is soft enough by pinching a grain between the thumb and finger. Drain off the water through a colander and set this with the rice in it over an empty pot on the stove to dry off. Just before sending to table, mix into it with a fork a teaspoonful of butter and a tablespoonful of grated cheese, with salt to taste.

CHOCOLATE CAKE.—To one cup of grated chocolate add three tablespoonfuls of sugar and five tablespoonfuls of sweet milk and one teaspoonful of vanilla. Melt and keep warm. One and one-half cups of sugar and one-half a cup of butter, beat together, add three well-beaten eggs and two-thirds of a cup of sweet milk, put in the chocolate mixture with three cups of sifted flour and two teaspoonfuls of baking powder. Ice with white icing when baked.

BROWN BETTY.—Cover the bottom and sides of a well-buttered pudding-dish with bread crumbs. Fill the dish with layers of chopped apple and crumbs, sprinkling each layer with common sugar and lumps of butter. Heap the dish high, for the apples will sink. Moisten with a little cold water, cover with a buttered plate and bake three-quarters of an hour, if the dish is large. Take off the cover and brown quickly. Serve warm with hard sauce.

TO STONE RAISINS.—Pour boiling water over them and let them stand five or ten minutes. Drain and rub each raisin between the thumb and finger till the seeds come out clean. Dry the raisins before using and rub them in flour before putting into cake, to prevent their sinking to the bottom. If chopped, flour should be scattered over them to prevent their adhering together.

NUT CAKES.—Half cup of sugar, half cup of butter, two eggs, half cup of water, 1½ cups prepared flour, one cupful hickory nut kernels freed from bits of shell and dredged in flour. Cream the butter and sugar, add the yolks of the eggs, the water and flour and the whites. Last of all, stir in the nuts. Bake in small tins and ice if desired.

FRUIT CAKE.—One cup each of butter, sugar and molasses, three cups of flour, four eggs, one-half cup of milk, one-half pound each of raisins and currants, one-fourth pound of citron, one teaspoonful each of cloves and cinnamon and one teaspoonful of soda or two teaspoonfuls of baking powder.

PACIFIC RURAL PRESS

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The Week.

The rain still holds off, and serious apprehension rules everywhere except in the moister parts of the State and those provided with irrigation. Some of our readers are strongly protesting against the dispatches which are sent from their sections to the daily papers, representing fine prospects, etc. One writer denounces such reports as "lying telegrams" and says the outlook was never worse. We have always labored against the policy of exaggeration and misrepresentation, and are sure that such untruth does no real good to man or the State. We sincerely sympathize with those who are facing the chances of an unproductive year. According to the probabilities it is now too late to expect effective rains in certain parts of the State, and on certain characters of soil, but we still trust that the year may yet prove much better than many now anticipate. Though wheat in some parts will probably have to be abandoned for the year, there may yet be moisture enough for some summer crops which will take off the edge of the failure somewhat. We would like to have our readers give us their experience as to what can be profitably done in the way of summer crops, with short rainfall or with a small amount of water such as can be had from deep wells. By such contributions from all who have good points, many may be greatly helped, and we shall do everything we can to minister to the same end ourselves.

Periodical Attacks of Cleanliness.

The public is liable to have periodical attacks of sanitary vigilance and precaution when great efforts are made to prevent or stay the spread of some form of disease that has become epidemic. Great stress is laid by the health boards on city scavengering, and miles of gutters and sewers are flushed and limed. All good citizens are alert and deep in the purchase of carbolic acid and a variegated assortment of mysterious sulphates, and disinfecting, fumigating, scrubbing and calcimining are going on everywhere. The newspaper reporters suddenly become wonderfully concerned about the public health and sally forth in search of leaky sewers, damp cellars, cesspools, foul back yards and the like, and editors give us homilies by the yard on the virtue of cleanliness. While the fit is on every prudent housekeeper goes about with up-tilted nose to catch the slightest whiff of any effluvia from effete organic matter, which, the doctors tell them, is one of the most active agents in localizing the germs of disease. Our San Francisco Board of Health is just getting over one of these periodic spasms of cleanliness. The prevalence of diphtheria aroused the attention of these guardians of the public health to the ancient and filthy condition of our sewers.

Now, all this is very well, and their sapient advice makes interesting reading; but the point we desire to make is, that the precautions which are taken to prevent or check some form of disease that has broken loose and assumed a malignant, pestilential type, should at all times be observed. The city should cultivate the habit of keeping clean. It is not only when the pestilence is in the air and contagion rides on the wings of the wind that it is dangerous to the public health to have the streets littered with decaying cats and dogs and rotten vegetables; choked-up sewers, dirty plumbing, uncleaned cellars, the space in dwelling-houses between the ground and floor where the sun never comes left to the spiders, rats, and bugs; dark, ill-ventilated rooms; cupboards where bits of stale bread are allowed to gather and cheese-mites to poison the air, clothes-presses and closets where soiled linen and old garments hang, cast-off boots and shoes, yellow with the growth of foul things accumulated—all these, and many other things that might be catalogued, are always nurseries of disease. Now, we do not indulge in the luxury of keeping a Board of Health merely to remove epidemic-breeding filth when the epidemic is upon us or about to put in an appearance. The enthusiasm with which vigilant housekeepers at such times clean, scour and souse the premises with bacteria-destroying sulphates and lime-water, or whatever the regulation disinfectant may be, should always be displayed where there is dirt in the way. It is not a revival we want, but a steady warfare on the devil of nastiness. The insidious typhoid fever, diphtheria, in short the whole family of zymotic diseases which pasture on the perennial fields of municipal or domestic filth, are far more to be dreaded than the cyclonic visitations of cholera or other form of the plague. And it is well known, or ought to be, that this class of diseases find their chief breeding-places in gutters, sewers, muck-heaps, swill-barrels, foul sheds and stables; the dust of the streets tainted with hippuric acid, which invades our houses, is inhaled in the air and falls upon the food we eat. And yet day after day, month after month, year after year, we submit to these chronic pests silently eating away the life of the community, with the stolid patience of a Hindoo expecting to reach Nirvana by hanging on a meat-hook, until we notice the undertakers are doing a lively business and funerals are uncomfortably frequent on the streets, and then the Board of Health beats a gong and there is a sanitary panic for a few days.

We should remember that disease is never a dispensation of providence. That most disease is dirt in the wrong place. The energy displayed by our Board of Health the other evening in chasing diphtheria to filthy sewers, noisome holes and corners of the city is a form of energy that should ever be at work. But the learned talk of the said evening is very much like the caution which locks the stable door after the horse is stolen. The transient fury with which housekeepers attack at such periods decomposed garbage, slops, mildew, the fungi of putrefaction and decay, should ever be the ruling passion. But after all, the gloomiest pessimist, the surliest fault-finder, must admit there is something good in these epidemics of cleanliness. If we cannot be clean all the time, let us be thankful we may be clean at intervals.

The Fruit and the Railways.

On another page we give the Secretary's report of the annual meeting of the California Fruit Union. It must be acknowledged that all that was hoped for in the determination of low railroad rates and in the securing of complete harmony between fruit-growers and fruit shippers, was not secured. It seems now settled that the perfect solution of the fruit-shipping problem must be reached gradually and by slow and short steps, and that there is no royal road which will lead straight through all difficulties to the goal desired. The results of the meeting are not without hopeful features, and one must be the selection of a good board of directors. The accession of new members to the board includes those with much knowledge of the subject and much experience as well.

The record of the last few weeks affords a very striking example of the unsatisfactory results of negotiations with the railway managers in the matter of freight rates. There seems to be a certain coterie of pleasant-speaking old gentlemen, holding high official position in the railway companies, who are quite willing to grant the requests of the fruit-growers, and another group of younger men, who hold subsidiary places, who never can see their way to do what the older parties claim to recommend. The experience of our committees of fruit-growers who go seeking concessions is much like that of a certain young Israelitish king who sought advice as to the policy to be adopted in his reign. He asked the old men and they counseled conciliation and mildness; he asked the young men and they counseled force and subjugation—they advised the young king to tell the people that they would find his little finger thicker than his father's thigh, etc. The simile does not fit exactly, but the experience of the growers is that they find little fingers at the railroad offices in this city which carry more weight, apparently, than the thick thighs in Washington and New York.

The present bugbear in the minds of the railway managers in this city is the new Interstate Commerce bill which has gone to the President for his signature. It will be noticed by the report on another page that the management had almost seen their way clear to concede the rates asked for by the growers until the Interstate Commerce bill rose on the Eastern horizon. This enactment seems to have paralyzed all their good intentions in regard to rates on fruit, and they could give no assurance on rates. Now we are not running a railroad, but it seems to us that we would have been more frank and outspoken. It seems to us if the management had a generous feeling toward the fruitmen, they could have said: "Gentlemen, we have decided to grant your request and we will carry your fruit at the prices you name, unless we are interfered with by the Interstate Commerce bill." This would have given growers some courage and they would have been more disposed to show some dislike for the "long and short haul" clause, which really seems to be somewhat inimical to the heavy traffic in California staples for Eastern consumption.

This whole matter of the fruit-growers' experience of the last few weeks in treating with the railways will remind people forcibly of the advantage it would be to have railroads owned and managed by the Government. If there were such ownership, and all the intricacies and expenses of rebates and unrevealed disbursements, etc., were swept away, we have no doubt that the carriage could be done, not only at the rates named by the growers, but for much less. The equivocations and reservations and qualifications plainly discernible in the answers given to committees cast a shade of mystery around the matter of transportation, which should be a very plain, straightforward and business-like affair.

AN ARTESIAN MONSTER.—We notice in an exchange a statement that at St. Augustine, Florida, they are boring an artesian well a foot in diameter. A depth of 760 feet had been reached Jan. 13th—the last 550 feet having been drilled through coral rock—and the flow was estimated at 7,000,000 gallons a day. The work is still going on.

Dynamite and Anarchy.

The use of dynamite as an agent to terrorize Governments and civil authorities has for some time caused considerable solicitude among the nations of Europe. In this country, as well as in England, where this cowardly and savage mode of warfare has been specially resorted to, the question is one of serious moment. True, there is less restiveness and discontent here with the Government, but we have a growing class—chiefly an obnoxious foreign element—who are at war with the whole shape of modern civilization. The Haymarket massacre, in Chicago, is a foretaste of what may be expected in this direction if this fire is not promptly stamped out.

But the danger of this tremendous factor of destruction does not stop here. The recent diabolical outrages in San Francisco show that explosive compounds are liable to become an agent to redress real or imaginary industrial grievances. The carmen had a right to strike. They had a right to organize an opposition line of public conveyance. Had their hostility stopped there, they would undoubtedly have had a liberal share of public sympathy; but the moment they resorted to violence and the use of bombs to intimidate travel on the boycotted line, they became no better than a pack of murderous, red-flagged anarchists. They belong to the class who throw to the winds all sense of justice, honor, and mercy, and become blood-thirsty fiends who stop at naught that is evil to attain their end. So deeply has public indignation been aroused by the recent dynamite outrages that there is little doubt that the Chamber of Commerce last Tuesday voiced the public feeling when the following resolution was unanimously adopted without discussion:

WHEREAS, The time has come when every citizen, business man, corporation and commercial body should use every exertion against the criminal and diabolical use of dynamite, such as we have recently experienced; and

Whereas, There seems to be no law to adequately punish such flagrant attempts to destroy life and property as has recently been made; therefore,

Resolved, By the Chamber of Commerce of San Francisco, that we earnestly recommend to the Legislature now in session the passage of such amendments to the Penal Code as will attach the penalty of death to every attempt to destroy life or property whereby life may be endangered, by the use of dynamite or other explosive, thus making an attempt to destroy or endanger life, whether successful or not, as grave an offense as murder.

This resolution may seem severe, but desperate diseases require desperate remedies. It is clearly apparent that a law should be passed and rigorously enforced, making the manufacture and use of dynamite for improper purposes liable to the heaviest penalties. The interests of humanity and good government require it. It is not likely that anarchy is near at hand in this country, but the people do not desire experiences that suggest the possibility. An ounce of preventive is worth a pound of cure, and this dynamiting business should be firmly suppressed before it goes any further.

THE STATE BOARD OF FORESTRY.—We give on another page an outline of the very valuable report just made to the Governor by the State Board of Forestry. We apprehend that unless the members of the Legislature who have especial appreciation of the advantages of forest conservation and extension in California, exert themselves to have the bills proposed by the commission brought up and acted upon, they may share the fate which awaits many measures, and that is death through neglect. We commend the bills to a speedy advancement that the work now on hand by the commission may proceed in due form.

MOUNTAIN FRUIT.—S. H. Herring has about 14 acres in fruit—pears, apples, peaches, grapes, etc.—on the main summit of the Santa Cruz mountains, eight miles from Los Gatos and 2700 feet above sea level. Fruits there ripen late, and therefore, coming to market at a time when there is little competition, command good prices. For instance, a few weeks ago he brought up some 80 pounds of sweet St. Martin prunes, nicely packed in 4½-pound boxes, and sold them to D. G. Camarinos, of this city, for $10.15 net.

LIVE-STOCK BURNED AT DENVER.—Early on the morning of January 23d, Geo. T. Goulding & Co.'s great corral at Denver was partially destroyed by fire. Twenty-two head of blooded cattle, 11 mules and three thoroughbred horses were burned to death. The loss is estimated at $10,000, fully insured. The fire is supposed to have been started by tramps sleeping in the hayroom.

Death of Father Upchurch.

So many of our readers are directly interested in fraternal societies and others indirectly because of the great growth of these beneficent institutions, that we believe the portrait which we present upon this page will be acceptable in view of the fact that the quiet, unassuming man who originated the idea of the modern fraternal societies, has lately passed away. Father Upchurch, as he was affectionately called by the members of the Ancient Order of United Workmen, the pioneer society of its class, died in St. Louis, Missouri, on Tuesday, January 18th.

Mr. Upchurch was a practical mechanic. His long experience among his fellow-workmen led him to think long and earnestly about ways for benefiting them and improving their condition. In 1868 he mentioned his idea to his more intimate associates, and 14 of them joined with him in establishing Jefferson Lodge, No. 1, of the A. O. U. W., in Meadville, Pa., on Oct. 27, 1868. The Order of course developed and broadened, but its origin was as stated. In speaking of its growth the *Pacific States Watchman* says:

Father Upchurch lived to see that little band of 14 members grow to about 180,000, having disbursed for the benefit of widows and orphans more than $15,000,000 since the formation of that Meadville lodge. The leaven put in three measures of meal has leavened the whole lump. Like the vine that came out of Egypt, the Order has spread over all the land, its branches laden with rich clusters, and thousands of grateful hearts basking in its shade. Such is the monument that now stands to the memory of J. J. Upchurch. In the light of eternity who would not rather have it than the Column Vendome and the glory of Austerlitz? And yet this fraternal blessing, like a mountain spring,

> "Will murmur on a thousand years,
> And flow as now it flows."

The *Watchman*, from which we borrow our engraving, also pays this eloquent tribute to the memory of Mr. Upchurch:

We have heard the sneer that Father Upchurch was a plain, unlettered, simple-hearted man, who had been made great by an accident. Be it so. A swinging-lamp told the secret of the pendulum. A falling apple threw open the gates of the universe. A simmering teakettle disclosed the giant energies of the steam-engine. The quivering of a dead frog's leg, when touched by the poles of a battery, revealed the mysterious force of animal magnetism. But such revelations as these do not come to the crowd of louts and idlers that mope and loiter around the corners of the world. Father Upchurch was a poor mechanic, who had a fellow-feeling with the sons of toil, and had long racked his brain in trying to devise some way to lighten their load and brighten their homes. It is no marvel; he should have been first to utilize the beneficent principle of our Order. Only those who stand and listen in the path of duty hear the rustle of the angel's wing.

Then we may learn from Father Upchurch's example that true greatness does not consist in the blare of brass bands, bronze statues, and a prominent place in history and song. It cannot be ascertained by the weight of the brain. The name of this poor mechanic will live and be honored when poets, orators, statesmen and millionaires are forgotten. It will go on growing brighter with the passing years for the simple reason that he was one of whom it can be truthfully said in the language of Abou Ben Adhem: "Write me as one who loves his fellow men." Perhaps the poor man who wrote "Home, Sweet Home" or the dear little woman who wrote "Nearer my God to Thee," has inspired more trust and gladness in the human heart than all the scientists and professional reformers of the age. Were we all to learn the meaning of such examples, our hearts would be filled with more joy, for we would realize, however lowly our lot, we may do something to make the world brighter and better.

Mr. Upchurch was born in Franklin county, North Carolina, March 26, 1826. His life was passed in earnest efforts to earn an honest living. His last years were happy ones. In 1885 he visited the Pacific Coast at the invitation of the Lodges. He visited many localities, and at every place was made the recipient of most joyous welcome, and then departed for Oregon, carrying away the blessings and many testimonials of a generous people. Father Upchurch had a warm feeling for California. Out of 25 jurisdictions that in 1880 contributed to a fund to make the closing years of his life comparatively comfortable and independent, more than one-fourth of it went from California. So delighted was he with the charming climate and the kindly greetings he received, that he expressed a wish that he could end his days in this State. It is known to many that arrangements were on foot to gratify that wish,

Pavilion at Stockton.

A large meeting was held in Stockton last Saturday, to bring about the speedy building of an Agricultural hall. From an extended report in the *Independent* it appears that the assembly was called to order by L. U. Shippee, President of the San Joaquin Valley Agricultural Association, who said it had been demonstrated that an agricultural pavilion was necessary, particularly if this section wanted to show the advantages of its soil and climate. Last year the association cleared $3000 over expenses, and with a proper hall the society could save from $2500 to $3000 every year. For the past 10 years it had averaged $2000 profits each year, but the money had been invested in permanent improvements. It had been suggested that life memberships could be sold to raise a guarantee fund of $15,000 or $20,000, and then stock could be sold for enough money to pay for erecting the building.

After considerable discussion as to a site for the proposed structure, the question was decided in favor of Washington square by a vote of 29 to 5.

A. L. Levinsky, secretary, prepared a subscription paper reading as follows:

We, the undersigned, do hereby agree that we will take and pay for the number of life memberships by us hereto subscribed at $50 per membership—said life membership being a certificate of membership in the San Joaquin Valley Agricultural Association. Payments to be made therefor as called for by the association for the purpose of erecting and building a pavilion in the city of Stockton; the said subscription not to be binding unless the erection of a pavilion be assured.

L. U. Shippee headed the subscription list with 12 memberships, and in a few minutes 103 life memberships were sold, netting $5150. Several parties subscribed after the meeting closed, and at last accounts there had been 109 memberships sold, thus securing $5450 toward the building fund. After the appointment of committees on canvassing and on securing the building site, the meeting adjourned to January 28th.

HEMP FOR PHYLLOXERA.—A reader at Vacaville asks if there is any experience to warrant the claim which appears in the papers, periodically, that hemp planted in vineyards will attract the phylloxera and prevent their injuring the vines. We have never seen anything to warrant the claim; possibly some of our readers have tried hemp and can report results.

Santa Barbara Horticulturists.

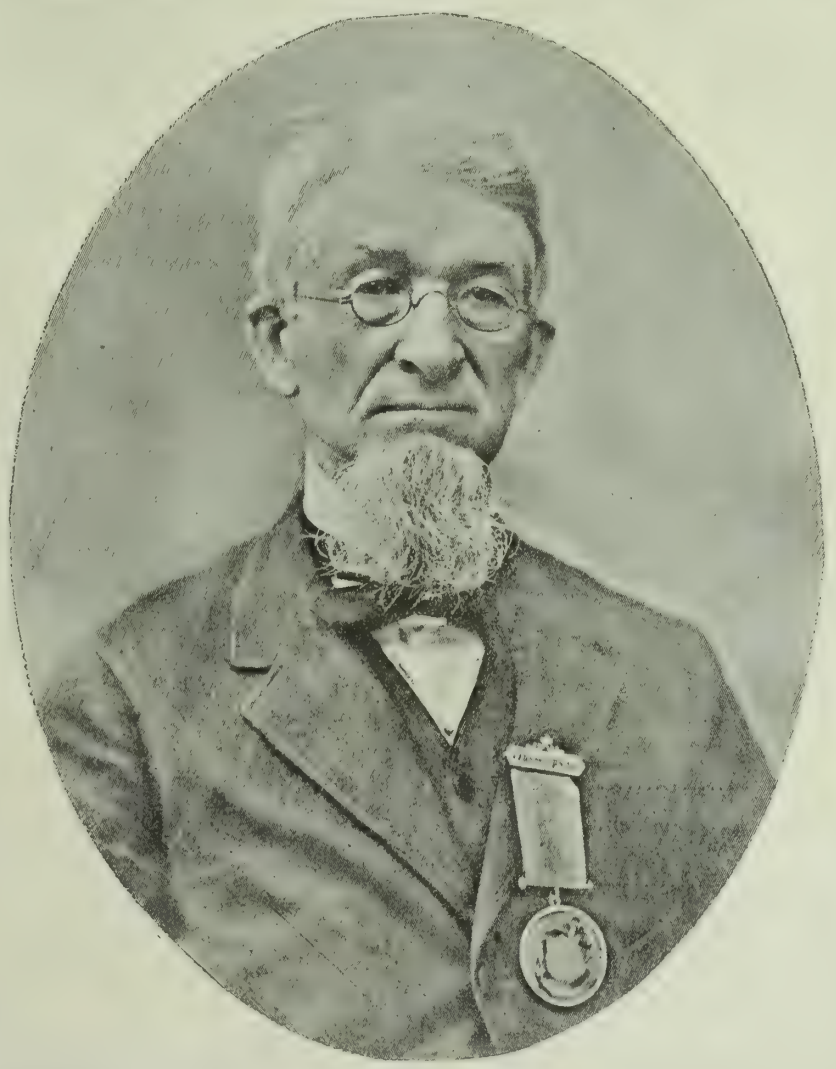
At the January meeting of the Santa Barbara Horticultural Society, as we learn from the local press, the Committee on Semi-tropical Fruits reported that oranges were being marketed earlier than usual, but it was too soon to pronounce upon the quality. Mr. Harper thought the crop would be larger than usual. Mr. Cadwell said that the oranges in the Carpinteria were small this year, but that the trees were loaded down with fruit, although from present appearances it is not as sweet as in other years.

From the Committee on Insect Pests Mr. Harper reported that he had examined trees in all parts of the city, especially the acacias, but had not found any codlin moth in Santa Barbara. He was corroborated by Messrs. Bingham and Cadwell. President Ford stated that the markets of California were full of Eastern apples, and that this fruit is full of the larva of the codlin moth.

Mrs. Sawyer exhibited a plate of the "Alligator pear," a tropical West Indian fruit, from a tree 15 years old, grown in the Montecito, and Mr. Ford read a paper descriptive of the fruit, which adds one more to the list of Santa Barbara productions.

A resolution, unanimously carried at a previous meeting, was amended to read: "That the Santa Barbara Horticultural Society is in favor of and recommends that the 22d day of February of each year be appointed and known as 'Arbor Day' of the State of California."

A resolution was also adopted, urging our representatives in Congress to use every measure to have the Hatch Experiment Station bill finally passed during this session.



THE LATE FATHER J. J. UPCHURCH, FOUNDER OF THE A. O. U. W.

IN Sonoma, Mendocino and Humboldt counties, reaching from Golden Gate to Oregon, are immense redwood forests covering an area of from 2 to 20 miles wide and nearly 200 miles long, from which millions of feet of lumber are now cut annually. Redwood is the most valuable timber in the State. As yet, no railroad traverses this territory, but work has been begun on lines which will soon bring the lumbering camps within easy reach of the market.

LOMPOC can now boast of a lumber yard, which, for size, neat appearance, convenience of arrangement and varied stock of material, would be a credit to a city five times its size. The premises embrace an entire block.

QUERIES AND REPLIES.

Morning-Glory.

EDITORS PRESS:—I notice the many inquiries you have as to the best method of treating this pest. The experience of Mr. W. J. Adams, a neighbor of mine when I lived at Fair Oak, San Mateo county, may be of benefit to those afflicted with this scourge. It made its appearance in his orchard in adobe ground in a small way, and gradually spread over a space of, say 100x150 feet, notwithstanding he fought it all the time for several years with salt, lime, ashes, and everything he could suggest that was practical in its application, and nothing stayed its onward course until he surrounded it with redwood boards, tongued and grooved and reaching down about three feet to clay bottom. He then tried dry cultivation on the corraled morning glory by the use of a plow and spade as often as twice a week—until all were out of sight—and as soon as any showed themselves above ground thereafter he would repeat the process until now not a sign of them exists. I have killed red sorrel, which is nearly as bad, by dry plowing, and if I had much of this weed-killing to do, I should build a weed-cutter that would cut off the roots to a depth of four to six inches, and to a width of say three feet, and not turn over the soil. A blade of good steel attached to a frame like a wheelbarrow, about where the bottom of the legs are arranged to adjust to any depth required, will do the work rapidly and effectually, and should any one desire I will give a more complete description of the machine I have used.—R. G. SNEATH, *Jersey Farm, San Bruno, Cal.*

Morning-Glory vs. Poultry.

EDITORS PRESS:—A neighbor of mine has for two or three years succeeded in keeping the morning-glory in check by simply shutting his hens in the same field with it. They are so fond of it that whenever a sprout is seen they eat and dig and dig and eat as long as possible My own experience has also been that they do not allow it to grow, and such being the case, may not that troublesome weed be in time exterminated by this method?—C. P. N., *Haywards*

Alfalfa for Morning-Glory.

EDITORS PRESS:—I have an orchard on the Mokelumne river bottom which in 1872 was badly overgrown in spots with the wild morning-glory. Cultivation of any kind of hoed crops did not seem to mitigate the evil. A persistent attack of two or three years did not affect its vitality. It had apparently come to stay. I thought I would try a crop of alfalfa. That proved to be the survival of the fittest, as the glory of the morning departed. The growth of alfalfa, six to eight tons of hay to the acre, has not seemed detrimental to the orchard. In 1883-4 I pastured hogs on the alfalfa, and their rooting destroyed so much of it that for the past two years, in order to reduce the sod for resowing alfalfa, I have had hoed crops again; but no signs of morning-glory have appeared. The morning-glory has also occurred in patches in my hopfields. The usual cultivation prevents its seeding and spreading. After the hops are gathered and the stock turned in, as they are very fond of the plant, they help to keep it down. Nothing will kill out alfalfa sooner than to let a cock of hay stand on the ground too long. Has any one ever tried to smother out the morning-glory in this way?—G. C. HOLMAN, *Lockeford.*

Cement for Garden Edgings.

EDITORS PRESS:—Will some of your readers kindly tell what they know about the use of cement for coping or edging for beds and lawns, and thus oblige many in the interior who have need of such work and are beyond reach of skilled labor? In our irrigational districts, wood will not answer, as its shrinking and swelling throw it out of shape, especially when curved; bricks are clumsy and unsightly; and your correspondent concluded that a neat edging of cement would be a thing of beauty, if not a joy forever. Accordingly, he consulted the various local authorities, and as a result procured some long strips of pine, ½ by 6 inches for the curves, and 1 by 6 inches for the straight lines, and fixed them in position by means of stakes, leaving an open space of 1½ inches for the mixture. Then, Portland cement and clean, sharp sand, of the proportion of one part of the former to two of the latter, were worked together dry, and afterward mixed with water to the consistency of stiff mortar. This was put into the molds, well tamped, and when the surplus moisture had disappeared was rounded up by means of a concaved wooden former drawn along the surface. Thus far all worked to a charm; the cement was kept constantly moistened for two or three days; then the boards were removed and the edging, smooth as stone, seemed hard and solid, without sign of check or flaw; so it continued during the week and was regarded as a most gratifying success, when suddenly it broke out into longitudinal checks and crevices, the top began to scale off, and it now seems going into a state of disintegration. Now the question is, was there any fault in the manipulation or proportions of the material, or would an addition of lime prevent this tendency to crack when exposed to the air?—TYRO, *Bakersfield.*

California Fruit Union Meeting.

Minutes of the Proceedings.

The stockholders of the California Fruit Union met in annual session in San Francisco, Cal., at Irving hall, January 19, 1887, at 1 P. M., and were called to order by the president, A. T. Hatch.

The president appointed B. C. Brown, of Santa Cruz county, assistant secretary.

The minutes of the last annual meeting were read and approved.

The secretary read his annual report, and in the absence of the treasurer made a report as to the finances of the Union, which reports were received and ordered placed on file.

The Secretary's Report.

Mr. President and Members of the California Fruit Union: In preparing this, the annual report for the season of 1886, our initial year, we have found that the obstacles encountered by *our* shippers have been strikingly similar to those which have presented themselves to the members of the Florida Fruit Exchange and the Interstate Fruit-Growers and Shippers' Association of Illinois. Nor is this to be wondered at when we reflect that the same causes led to the formation of each organization, and each in its way sought to overcome existing evils.

Quoting from the report of our fellow fruit-growers of the Peninsular State, we read:

"During past seasons no organized system was in force among the growers. Each grower shipped according to his own inclination, few, if any, having reliable information as to the condition of markets. The worst feature of this method was that the shipments were scattered indiscriminately all over the country in such a manner that the fruit was continually competing with itself."

Were we to continue, all of the report would apply, with equal force, to our own situation. Simultaneously we, of the different fruit-producing States, saw the approaching crisis and cast about for some method to avert the calamity; and, as for ourselves, the following report shows, partially, with what result.

In the words of one of our city papers, "The auspices for a year of unanimous action among the fruit-growers of California, which seemed so fair when the last New Year's article was written, were not borne out during 1886. It was stated then—January, 1886—that the chaotic condition into which the fruit interests of the State had drifted was at an end, and that the proposed Fruit Union would straighten out everything. The prediction has unfortunately not been exactly fulfilled."

It is not our purpose in this report to enter into any discussion as to the whys and wherefores of this partial success, but simply to state the facts.

As we have had occasion to say before, *all* now admit that mistakes have been made. Considering that it was an untrodden path and a work of no small magnitude, with many conflicting interests to harmonize, it would indeed seem strange were it not so.

But the opinion seems to prevail among our fruit growers, members, not so much to enter into any wordy controversy over the results of the year that has passed as to take note of the errors that have been made, give them our cool, careful consideration, and establish safeguards against their repetition during the coming year.

As we gather from letters, daily coming in from all sides from those interested in the successful solving of the fruit problem, this meeting is one not so much for *recrimination* as for *reconstruction*.

We have had the pros and cons somewhat thoroughly discussed through our local papers, our long-drawn-out speeches at former meetings, but now the plain fact stares us in the face that we are on the threshold of another season, one which promises fair to far surpass, in quantity of fruit, any previous year; and it would certainly seem to be apparent, to even the most pronounced partisan of whatever party or plan, that the work now in hand and of the gravest importance is for each and all to carefully put aside any ill feeling which the past season may possibly have engendered, and for *every one* to assist in formulating some plan, which, as far as it is possible, where so many with varied desires are united, would seem to be acceptable to all.

Nor, happily, having discovered this long-sought-for medium, does all responsibility, as some in the past year seem to have thought, then leave the many and find itself shouldered upon the few whom you elect to hold the positions of trust and carry out your plans as they may be expressed at this meeting.

Rather let all, who are either directly or indirectly interested in the future of the fruit interests of our State, *whatever* plan may be adopted, even though it may not incorporate every minute detail of some pet hobby you may hold, not only resolve to assist and support the Union, but see to it that these good resolutions are not left behind when you depart for your homes, so that the report at the close of the coming year, instead of showing that four-fifths of the fruit handled came from a dozen members, will present a lengthy list, each one sending his mite which in the aggregate makes the millions.

Without this ready support from all the members, any Union, founded on no matter how adequate business principles, will meet with but indifferent success.

The three great obstacles which have had much to do with the measure of success attained in this our first year, and of importance in the order named, are:

1st. High freight rates and inadequate facilities from the railway companies.

2d. Competition in our own fruits in Eastern markets.

3d. The apathy and indifference, if not actual antagonism, among our own members.

In successfully overcoming these three difficulties and the attending evils and consequences arising therefrom, we will strike the keynote to success.

At a meeting of the Board of Trustees held at the office of the Union in this city, May 27, 1886, they decided to make a second call of 25 per cent of the par value of the stock.

Previous to this, on the issuance of a certificate, 25 per cent had been paid, and there was then outstanding 15,143 shares of stock held by 715 members—an average of 21 shares per member, and an insignificant number, when we glance over the many thousands of acres planted to trees and vines all over these middle counties.

Some responded promptly to this second call, while a great many delayed; but after sending out a second and even a third notice, 50 per cent was collected upon nearly four-fifths of the number of shares originally taken.

The funds in the treasury by this time—Sept. 29, 1886—being very low, the board at a meeting decided to announce a third call levied at 25 per cent and due at once. We now had 11,375 shares, held by 495 members—a falling by the wayside of 220 members holding 3768 shares, on which there was due $942.

The responses to this third call were even fewer and slower in coming in than those to the preceding one. A great variety of reasons were ascribed as the cause for not responding to this appeal. Quite a number did not favor the mode which, in the judgment of the board, it seemed best to adopt for the management of the business of this year. Some thought they were paying more than their proportion for the benefits derived. Their neighbor, with 50 acres and 10 shares, enjoyed the same privileges and indirect benefits as they with their 20 acres and 20 shares. Some had worked their vineyards over entirely into wine grapes; others rented their places for the season; while some had sold their crop entire at a good figure, and so, they argued, had no further use for the Union for this season. "If they thought best, they would see about paying up next year." These last omitted to mention if they had disposed of their future crops equally as well or the cause of the price offered this year pleasing them.

These and many other reasons came in from all sides, but from the larger proportion came no word at all; so that at the present writing—Jan. 13, 1887—our list of stockholders against whom we have no claims numbers only 217 members, holding 5186 shares—a reduction of 9957 shares from the number taken at the outset, and of 6189 shares from the number outstanding at the time of the third call. There is a total amount due from these delinquent payments of $4036.50.

The stock was originally held by members in 25 counties, but the series of reductions through which we have passed has lessened the number of counties represented as well, until at the present the 5186 shares are distributed over only 18 of our middle counties.

Solano takes the lead with 1141 shares, which is about one-third her first holding. Sacramento follows very close with 1135 shares, nearly two-fifths her original issue; Santa Clara, third, with 785 shares—a reduction of two-thirds; and Alameda county fourth, with 622 shares, or about one-fourth her original issue.

Then follows quite a number of counties represented by from ten to a few hundred shares each, and Fresno, San Mateo and Kern counties foot the list with five (5) shares each.

We have had but two sources of revenue, one of which was of but little assistance, as will be seen by the following balance. These were the amounts paid into the treasury from subscribers to stock and the amount received from the agent of the Union at Denver, the board in appointing him having made the arrangement that, of the 10% commission which he charged members for handling their consignments, he was to retain eight and refund two per cent to the proper officer of the Union. The sales at that point having been very limited, the amount received from such agent is proportionally small.

The following balance will show how the funds of the Union have been received and expended:

Rec'd from payments on stock	$8156 75	
" " 2% returned by Denver agent	261 05	—$8417 80
Paid sundry expenses, *i. e.*, canvassing, telegraphing, etc.	$301 15	
Paid office rent and janitor	310 05	
" " fixtures—Desk, box brands, etc	239 50	
Paid stationery—Books for stock issue account, etc	105 73	
Paid printing—Circulars, notices, etc	210 40	
Paid advertising—Notice of meetings, papers, etc	116 05	
Paid salaries of officers	4517 80	
Paid postage	182 86	
Paid fuel	25 50	
Paid traveling expenses of members of the board in attendance on meetings and business of the Union	902 00	
Paid bills contracted by the organization committee before incorporation	522 65	
Paid telephone rent and bills	47 30	
" maintenance of office at Sacramento during the shipping season	803 95	
Cash on hand held by secretary	15 54	
Cash in bank held by treasurer	117 32	—$8417 80

The following bills are yet outstanding, *i. e.*:

Due L. W. Buck balance of salary as general manager for 4 months	$932 50
Due A. T. Hatch balance of salary as president for 4 months	384 70
Due H. A. Fairbank balance of salary as secretary for 2 months	250 00
Due office rent and janitor for 1 month	25 00
Due taxes, 10 cents on each certificate iss'd	75 00
Due hall rent for present meeting	30 00
Due dailies, advertising notice of meeting (present)	25 00
Total due	$1722 20

We have kept an account with each individual consigning produce through the Union, by a system of duplicate account sales returned the Union by its Eastern selling agent, showing the number of boxes or crates forwarded, the gross receipts, the amount of freight, cartage and commission paid and the net returns. From books showing such accounts, we gather the following facts and figures:

The shipping season has extended over a period of six months, the first car being forwarded from Winters, Yolo county, May 19, 1886, and the last leaving Wrights, Santa Clara county, Nov. 18, 1886. The early shipments from Winters and vicinity consisted largely of apricots, and, although sent by express train, paid extremely well, the net returns averaging nearly 4½ cents per pound.

Shortly after the Vacaville district commenced shipping, prices in the East dropped considerably, so that from that section the net returns on apricots were a trifle short of 3 cents per pound. But while prices on this product were beginning to weaken in the East, the local market, being left almost entirely bare, began to brighten, prices were materially increased, and a number of buyers started out to secure choice lots, and soon two-thirds of the remaining apricots from these localities were bought up at prices ranging from 3 to 4½ cents, delivered at local points. As the season advanced, from two to six cars were being sent daily by the Union, though it did not dispatch a train until the 20th of July.

During the early part of the season quite a number experimented in shipping currants, and with a single exception, lost money on the transaction, as on arrival the currants were, in most instances, in such a condition that their sale would not cover freight charges. The exception noted was that of a member from Haywards, who, in his last shipment, made a radical change in manner of packing and met with a decided success when compared with the prices then ruling in the local markets.

The ruling price for plums in the East the past year has been low, the total average net per pound received by our shippers being only 1¾ cents.

Quite a number of boxes of cherries were forwarded during the early part of the season, and though considered by the consignors a rather risky experiment, the shipments have usually returned a good profit to the senders, the average net per pound for the year being 8 cents. A shipper from San Lorenzo received the highest price reached during the season, on a consignment of 22 boxes, if we are correctly informed, of Royal Anns, for which he received net $33.08, or 15 cents per pound.

What few peaches have found their way out of the State, have paid exceedingly well; but when we consider that prices in our home market ranged from 2½ to 4½ cents, we will soon see why few preferred to run the risk attendant on sending them across the continent. On those consigned East, the total net average has been 4 60-100 cents per pound.

A member from Vacaville received the highest price reached during the season, on two consignments made during the latter part of October and early part of November, of 96 and 40 boxes respectively of 20 pounds weight, on which he received net returns for the 136 boxes of $285.76, or a shade over 10 cents per pound

With regard to prices received for grapes, which have ruled very low, considerable might be said. Some natural causes combined with others led to very disastrous results during the greater part of the season. Because of the unusually heavy rainfall last winter, grapes contained considerably more water than commonly, and grapes, the past season, from localities heretofore considered especially favored in producing fruit admirable in its carrying qualities, arrived in an almost worthless condition at their journey's end.

Another *main* cause of failure in securing remunerative prices for this fruit was, that the larger proportion was sent by the special fruit train, the shipper being misled by the railway offer of "approximation to passenger time." As a consequence, when the train was nearer eight than five days, with a day or so added in delays consequent upon getting together 15 cars, the consignor considered himself extremely lucky if he were not called upon for freight money. The average net receipts per pound for the year amounts to only 1 18-100 cents. The grapes shipped during the latter part of the season naturally paid much better, averaging over 3 cents per pound net.

Bartlett pears were sold very low during the months of August and September, but prices greatly improved during the latter part of the season, the net receipts showing a total of 2 1-5 cents per pound, while *late* pears sold very much better, yielding net returns of 3 5-7 cents per pound.

Quinces and figs have been shipped in small quantity, the first netting 1 85-100 and the latter 1 44-100 cents.

But one shipment of almonds was made, on which the consignor received a net return of 14 cents per pound.

The grand totals of all fruit shipped by the Union during the season are shown in the following table, taken from our books, which are open for inspection at all times to all stockholders:

Number of boxes	111,933
" " crates	147,216
" " pounds of fruit, *not* including weight of package	5,897,412
Gross receipts on same	$355,416 98
Freight paid, amounting to	175,315 53
Cartage paid, amounting to	2,890 57
Commission paid, amounting to	35,402 24
Gross charges, total	213 609 04
Net returns, gain	$146,090 31
Net returns, loss	3,955 06
Total net receipts	$142,135 25

Giving a total average net per pound of 2 41-100 cents.

Were we to deduct the cost of the total number of packages, by computing the cost of the boxes at 5 cents each, and that of a single crate, including baskets and paper, at 18 cents, a total of $32,094 53-100, it would then leave the total net receipts a trifle short of 2 cents per pound.

To one carefully examining this table some particular features present themselves. We find that about 2,800,000 pounds of this fruit, or a little over one-half, was shipped from Solano county. Of this amount, nearly 1,980,000 pounds, or about five-sevenths, was loaded at Vacaville; while nearly seven-tenths of this came from two consignors at that point.

Santa Clara county follows next, with, in round numbers, 1,200,000 pounds, or nearly one-fifth of the whole amount; and Alameda county is third, with 650,000 pounds, or about one-ninth of the total shipment.

Yolo county comes fourth, with 480,000 pounds, almost entirely from one shipper, and about one-twelfth of the whole amount shipped during the season.

From Placer and Sacramento counties the shipments have been about equal, Placer leading with 363,790 pounds, nearly 45,000 pounds more than Sacramento county.

Butte county furnishes 125,420 pounds entirely from one shipper; while Sonoma, Napa and Colusa counties have contributed a small amount each, in the order named as to quantity—the total from all amounting to 78,500 pounds, of which Sonoma sends 56,020, Napa 21,980, and Colusa, 500 pounds.

One hundred and twenty-seven members, or about one-sixth of our entire membership, have availed themselves of the shipping privileges of the Union, making 1395 consignments, an average of 11 shipments each for the entire season.

The smallest total amount sent by one shipper was one consignment of 100 pounds, while the largest amount from a single member was 688,960 pounds, embracing 42 shipments.

So much for the season's shipping. While it is not as satisfactory as we had hoped, or had cause at the beginning of the year to expect, still it but serves to emphasize the fact which must now be patent to all—that if we would hope for success we must have a Union of all concerned in the fruit interests of this part of the State. By such a Union we can successfully eradicate the second of the evils mentioned as working disastrously to us during the past year—competition—and certainly hope for far better results in our endeavors to lighten the burdens of the first and most serious drawback to our success.

Quoting again from our Florida colaborers, words which seem most opportune, we read:

"One of the principal aims of this association is to secure lower freight charges. One of the greatest drawbacks to the prosperity of Florida fruit and vegetable-growers is the present high freight rates. Ever since the growing of fruit and vegetables in Florida began to assume important proportions, the war cry of the grower has been '*lower rates.*' Year after year the same complaint is made against the transportation companies—'poor facilities, rates too high.' Yet the same old order of things continues to exist.

"You all admit that there is a right and a wrong way to do everything. The question of securing lower rates is no exception to this rule. There is a right and a wrong course. Results show that the efforts made by the individual growers in the past have practically amounted to nothing. Growers have petitioned, formulated resolutions and ventilated their grievances and opinions in the papers of the State. Notwithstanding all this, the rates remain pretty much the same.

"Now this obstacle can be overcome; and the solution of the difficulty is in the hands of the growers. You must *unite*. You have tried the old system of 'every man for himself' long enough. In order to secure lower rates, better and quicker transportation facilities and a uniform price for yonr produce, you must organize. 'In union there is strength.'"

These are but the echo of words which have time and again been brought to the ears of the California fruit-growers, and would certainly seem to *now* be presented with additional power born of the experience of the year just closing.

One thousand and thirty-seven cars of deciduous fruits were sent East this year, of which the California Fruit Union furnished nearly two-fifths.

Should matters be so arranged that we can all work in unison the coming season, no one will believe that we will exaggerate when we say that *we*, as a Union, can *easily* dispatch to the East 1500 cars of our fruits and still have enough left to meet all requirements of the local trade many times over. To *talk* it is one thing; to *do* it, another. You are here now to decide what we *shall* do.

In closing, we know of no words more appropriate than those addressed to the Interstate Fruit-Growers and Shippers' Association:

"We therefore feel proud that the result, yet with all its failures, is so gratifying that we see from the past much to encourage us in renewed efforts to make the association directly and indirectly beneficial to all fruit-shippers in the (Mississippi valley) State and the greatest fruit-shipping association in America. What's to hinder? The field is here. It only requires concert of action; confidence in the honesty and integrity of the officers; unconquerable energy; unity of purpose and a determination to succeed in spite of all opposition, and the work is accomplished. Then, and then only, will the drooping spirits of the fruit-grower be enlivened and a ray of hope beam upon his future prospects."

Report of Committee on Transportation.

On motion of L. W. Buck, H. Weinstock, Chairman of the Committee on Transportation appointed at the last annual session of the State Horticultural Society, held at Sacramento, to report at this annual meeting, was requested to submit his report. The report of Mr. Weinstock showed that a great amount of very important work had been accomplished by the committee. The following is an epitome:

Rates were offered by General Manager Towne as follows: Single car by passenger train, $500, 10 cars to constitute a "special fruit train" to approximate passenger-time, at least not to exceed that by 24 hours, and they would try to arrange it so that such train should arrive at Chicago early in the morning in order to meet morning sales. The rate on 20,000 pounds on such trains would be $400 and a slow-freight rate of $210 per car.

This proposition was not accepted by the committee, but they wrote Mr. Towne that they held a telegram from Mr. Huntington in which he said he had instructed the proper officials of the road to accede to the request of the fruit-growers for a rate of $300 on 10 cars and fast time, provided that in their judgment such a rate was not directly opposed to the best interests of the road. They had also advices from Mr. Kimball, of the Union Pacific, that he would accept the $300 rate on 10 cars.

A lengthy letter, replete with statistics, had been sent Messrs. Huntington, Crocker & Stanford; and copies of resolutions passed by the San Francisco Board of Trade and Chamber of Commerce, and also by the Sacramento Board of Trade, stating that in order to protect the fruit interests of the State, in their judgment, the requests of the fruit producers were both wise and necessary, were also forwarded to these gentlemen.

On motion of Mr. Johnston, the report was received and ordered placed on file.

Mr. Melone moved the appointment of a committee on transportation, to consist of seven members, which should be composed, as far as possible, of the members of the committee last reporting, to wait on the railroad authorities for

the purpose of ascertaining if they were willing to make any concessions further than those indicated in their last communication to the committee. Carried.

The president appointed as such committee the following gentlemen: Drury Melone, Wm. Johnston, H. Weinstock, H. K. Plate, J. H. Flickinger, L. W. Buck, Wm. Barter.

On motion of Mr. Johnston, President Hatch and A. Block were added to the committee.

On motion of Mr. Buck, A. Abbott and H. L. Dodge were added to the committee.

On motion of Mr. Weinstock, Capt. W. L. Merry was added to the committee.

Mr. Johnston moved the appointment of a committee on order of business. The president appointed Wm. Johnston, H. Weinstock, Wm. Blackwood, L. W. Buck, Wm. Barter and W. B. Parker.

The committee withdrew, but shortly reappeared, and Mr. Johnston, the chairman, reported as follows:

Mr. President: Your committee on order of business beg leave to recommend the following as the

Order of Business.

1. Reports of committees.
2. Revision of by-laws.
3. Election of officers. And we recommend that when this meeting adjourns it adjourn until to-morrow at 9 A. M.

On motion of Mr. Melone the report was adopted.

The president announced the revision of by-laws as the order of business.

L. W. Buck moved that during the session this afternoon the privilege of the floor be granted all persons, whether stockholders or otherwise. Carried.

Mr. Johnston moved that the by-laws be read section by section for the purpose of receiving suggestions for amendments thereto, and of provoking discussion thereon, and that action on the adoption of amendments be deferred until to-morrow's session. Carried.

The by-laws were then read by the secretary in accordance with this motion.

Pending the discussion, Mr. G. M. Gray moved the appointment of a committee of five, to whom should be referred the whole subject of amendments to the by-laws. Carried.

The president appointed as such committee G. M. Gray, H. Weinstock, James Rutter, Wm. Johnston, Drury Melone.

On motion, the meeting adjourned until 9 o'clock the following morning.

Second Day.

Meeting called to order at 10 A. M. by A. T. Hatch, president. Minutes of the meeting of the previous afternoon were read for the information of those who were absent.

Report of Committee on Transportation.

Mr. Melone, Chairman of the Committee on Transportation, reported that the committee met Mr. Towne the previous evening. That Mr. Towne stated that, as a result of correspondence with the leading officers of their own company and connections, they were willing to grant a rate to Chicago of $500 per car on cars to be attached to passenger train in such number as could be accommodated on said train, and a rate of $300 per car for trains of not less than 10 cars, the time to not exceed passenger train by more than 24 hours, and a rate on slow freight of either $200 or $210 per car—he could not exactly remember the figure, but thought it safe to say $200. Mr. Towne said they were about to submit these rates to the fruit-growers when he was informed by wire that the officials in the East apprehended difficulty from the effect of the interstate commerce bill, and that it might prevent the concessions above suggested; otherwise the concessions were absolute.

On motion, the report was received and the committee given further time.

Mr. Gray, Chairman of the Committee on Amendments to By-laws, reported as follows:

Mr. President: Your Committee on Amendments to the By-laws recommend as follows:

To amend Section 1 by inserting in line three, after the word "number," the words "three of whom may be shippers."

To amend Section 5, Subdivision 2, by adding the words, "Shippers may become members of the Union by taking not less than 100 or more than 500 shares of stock."

Your committee also recommends that the trustees be empowered to sell to the highest bidder the privilege of securing a choice of shipping point.

The report was received and ordered placed on file.

The amendment recommended by the committee to Section 1 was adopted by viva voce vote.

F. B. McKevitt moved that Section 4 be so amended as to provide for *semi*-annual meetings of the stockholders.

The motion was lost on viva voce vote. Consideration of the amendment to Subdivision 2 of Section 5 recommended by the committee was then had.

A. Block moved to amend the amendment proposed by the committee by striking out the words "one hundred" and inserting "fifty;" also by striking out the words "five hundred" and inserting the words "one hundred."

Mr. Melone moved as a substitute the insertion of the following: "Any shipper may become a member by taking 200 shares of stock."

Mr. L. W. Buck moved as an amendment to the proposed substitute that the word "shipper" be stricken out and the word "non-producer" be inserted.

The proposed amendment was accepted by Mr. Melone as a part of his motion.

The question being raised as to the accepted definition of the word "shipper," Mr. Block moved as a further amendment the following substitute:

Any non-producer engaged in buying and shipping fruit may become a member of the Union by taking 200 shares of stock.

Mr. Melone agreed to the substitute. Viva voce vote being had on the adoption of the amendment, it was carried unanimously.

Mr. Weinstock moved to amend Section 10 by striking out the whole of said section and inserting the following:

SEC. 10. The Board of Directors shall, by compiling such facts and statistics as may be at their command, arrange a table of distribution subject to such changes and modifications as the market may, from time to time, demand; and it shall become the duty of the General Manager to regulate the distribution strictly in accordance with such provisions.

The Directors may delegate, subject to revocation, the power to change or modify the table of distribution to the General Manager.

The General Manager shall appoint, subject to confirmation by the Board of Directors, a commissioned agent, also an auctioneer, in every city east of the Rocky mountains that can use a carload or more of California green fruits at a time.

The Board of Directors shall establish regulations to control the quality, weight, and packing of all fruits offered for Eastern shipment, and it shall be the duty of the General Manager, through his inspectors, to enforce such regulations, and to reject all fruits offered for shipment that do not come up to the standard requirements.

All fruits consigned by the Union to Eastern agents shall be offered, by the auctioneer appointed by the General Manager, at public auction, and sold to the highest bidders for choice of lots; the auctioneer's fees to be deducted from the agent's commission.

The auctioneer shall forward by the first mail, to every member having fruit at such sale, a copy of the catalogue, giving in print the prices realized for every lot of fruit sold at said sale.

Subscribers of stock shall contract with the other subscribers that they will not sell any fruits for Eastern shipment to any except to members of said Union (Eastern shipment meaning east of Ogden), reserving the right to sell any and all fruits for any other purpose.

Members of the Union shall be privileged to name points of destination for their fruits, and they shall be further privileged to name their own consignees. It shall be the duty of the General Manager to faithfully observe such wishes: provided, the space allotted to such points of destination be not all previously applied for, and provided such members agree to have their fruits sold by public auction, by the auctioneer employed by the Union, and at the same time and place at which the fruits consigned to the agents of the Union are sold.

The Board of Directors shall establish such rules as will give all members an equal chance in naming preferred shipping points. Should the application for space to certain shipping points be greater than can be furnished, the Board of Directors may entertain sealed bids from members of the Union, at the rate of so much premium per ton, for the privilege of securing a choice of shipping points for quantities not to exceed one carload at any one shipment, provided, the term for which such privileges are let shall not exceed 30 days; and, provided, that due notice to all stockholders be given through the mails by the Secretary at least five (5) days before the time appointed for the opening of such sealed bids, which shall be addressed to the Secretary, and opened by him in the presence of the Board and such bidders as may desire to be present; the highest bidder to have first choice during the term of 30 days or less, and so on, the Directory retaining the privilege to reject any and all bids.

Mr. Blackwood moved that consideration of the proposed substitute be had by subdivision seriatim. Carried.

Pending discussion, recess was had.

The session convened again at 1:30 P. M.

Mr. Markley offered, as a substitute for the pending motion, a motion to amend Section 10 by adding the following:

The Board of Trustees are authorized to sell fruit at auction, when in their judgment they think it best to do so.

Subscribers to stock shall contract with the other subscribers that they will not sell any fruit for Eastern shipment to any except to members of said Union (Eastern shipment meaning east of Ogden), reserving the right to sell any and all fruits for any other purpose.

Adopted by viva voce vote.

Mr. Block moved to amend Section 1 by inserting in page 2, line 5, after the word "Board," the following: "and such other assistance as they may from time to time deem necessary." The motion was lost.

Mr. Weinstock moved to amend Section 10 by striking out the first eight lines of the section.

Mr. Johnston moved as a substitute to amend by striking out the words: "provided that on all fruit and vegetables so consigned, a commission of not to exceed five per cent of the sale value of said fruits and vegetables, and the actual freight, shall be paid to the Union." Lost.

Vote being had on Mr. Weinstock's motion, it was carried.

Mr. Block moved to reconsider the vote on Mr. Markley's motion, whereby two additional clauses were added to Section 10. Carried.

Mr. Meek moved to amend the motion by striking out the last clause, leaving to be added to the section only the following: "The Board of Trustees are authorized to sell at auction, when in their judgment they think it best to do so." Carried.

On motion of Mr. Block, the lines last above quoted were adopted as an addition to Section 10.

Mr. Johnston moved the appointment of a committee of five (5) to nominate a Board of Trustees for the ensuing year. Carried.

The chair having called for nominations for the committee, the following were nominated, and were appointed by the president: C. T. Adams, of Newcastle; W. W. Smith, of Vacaville; Wm. Johnston, of Richland; Wm. C. Blackwood, of Haywards; Drury Melone, of Oak Knoll.

Pending the report from the committee, Mr. Markley offered the following resolution:

Resolved, That the Board of Trustees are hereby requested to give the auction plan of selling fruit a thorough and systematic trial.

The resolution was adopted.

Report of Committee on Fruit Packages.

The Committee on Fruit Packages, appointed at the Sacramento Convention, reported as follows:

To the Stockholders of the Fruit Union—GENTLEMEN: The committee appointed at the Sacramento meeting of the State Horticultural Society to fix uniform sizes for boxes for Eastern shipment, recommends that the following sizes be made standard:

		Length, in.	Width, in.	Depth, in.	Capacity lbs.
Cherry boxes	Inside..	16½	10⅜	2½	10
	Outside.	18	10⅞	3	
Plum boxes..	Inside..	18½	11¾	4	20
	Outside.	20	12⅛	4⅜	
Apricot or Peach boxes.....	Inside..	18½	11¾	4⅜	22
	Outside.	20	12⅛	4¾	
	Inside..	18½	11¾	4⅞	25
	Outside.	20	12⅛	5¼	
	Inside..	18½	11¾	5⅜	27
	Outside.	20	12⅛	5¾	
	Inside..	18½	11¾	5⅞	30
	Outside.	20	12⅛	6¼	
Pear boxes..	Inside..	18½	11¼	8½	40
	Outside.	20	12⅛	8⅞	

Sides, tops and bottoms of cherry boxes shall be of ¼-inch lumber; of plum, peach or pear boxes, of 3-16-inch lumber; all ends shall be made of ¾-inch lumber, all cleats of ⅜-inch lumber.

Each side of the cherry box shall be made of two strips, each of ¼-inch lumber, and ⅞ of an inch in width. All lumber to be as smooth as possible.

L. W. BUCK,
GILBERT TOMPKINS,
For the Committee.

Election of Directors.

The Committee on Nominations, after a brief absence, reported the following named gentlemen as candidates for members of the board for the following year: A. T. Hatch, Solano county; H. Weinstock, Sacramento county; L. W. Buck, Solano county; Webster Treat, Yolo county; G. D. Kellogg, Placer county; P. E. Platt, Sacramento county; H. C. Morrill, Santa Clara county; H. W. Meek, Alameda county; John Markley, Sonoma county.

On motion, the secretary was instructed to cast the ballot for the above-named gentlemen. The secretary having done so, the president declared them duly elected trustees of the California Fruit Union for the ensuing year.

No further business appearing, the meeting adjourned sine die.

H. A. FAIRBANK, Secretary.

Dr. Pierce's "Pellets" cure sick and bilious headache, sour stomach, and all bilious attacks.

The Housekeeper's Complaint.

"I am discouraged. I have too much to do. I am tired. I am sick. I suppose I was put into this house to keep it clean, but it is too much work. I won't try. I will go to sleep. I don't care what becomes of the house."

The above is an allegory. The discouraged housekeeper is the liver, which, indeed, is often called "the housekeeper of our health." If it does go to sleep as it threatened, a crowd of diseases are all ready to spring up as a consequence. Dr. Pierce's "Golden Medical Discovery" acts upon the liver and assists it in its work of housekeeping and house-cleaning. It is the great liver remedy and blood cleanser, and cures all the long train of chronic maladies resulting from a torpid or sluggish, *sleepy* liver, such as sick headache, scrofulous diseases, as ulcers, "fever-sores," "white swellings," hip joint disease, consumption of the lungs (which is really only scrofula manifesting itself in the delicate tissues of these organs), also all skin diseases, as blotches, pimples and eruptions, and all blood taints, however acquired.

Favoritism

Is a bad thing, but Dr. Pierce's "Favorite Prescription" deserves its name. It is a certain cure for those painful maladies and weaknesses which embitter the lives of so many women. Of druggists.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

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That time is the only really impartial test of genuine merit, and that according to the universal law of "the survival of the fittest," few sewing machines have withstood this test. Therefore, the only safe thing to do is to buy what time has proven to be the fittest"—the "DOMESTIC" SEWING MACHINE.

Cheap Money for Farmers.

Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

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Nothing adds more to the security of life, of happiness, and of health, than a safe and reliable family medicine. S. L. R. has won for itself the appellation of "the family blessing." If a child has the Colic, it is sure, safe and pleasant. If the father is exhausted, overworked, debilitated, it will restore his failing strength. If the wife suffers from Dyspepsia, Low Spirits, Headache, it will give relief. If any member of the family has eaten anything hard to digest, a dose of the Regulator will soon establish good digestion. It gives refreshing sleep even in cases where narcotics have failed. It is a preventive, perfectly harmless, to begin with, no matter what the attack, it will afford relief. No error to be feared in administering; no injury from exposure after taking; no change of diet required; no neglect of duties or loss of time. Simmons Liver Regulator is entirely vegetable and is the purest and best family medicine compounded. J. H. Zeilin & Co., Philadelphia, Pa., sole proprietors.

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On February 1st I will remove my office from present quarters to

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Warehouse as heretofore, at corner Fifth and Bluxome Sts.

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Of the following varieties FOR SALE:

Colombar, Folle Blanche, Burger, Zinfandel, Mataro, Carignan, West's Prolific, Trousseau, Charbono. Grenache, Frontignan, Lenoir, Merlot, Cabernet Franc Semillon and Sauvignon blanc.

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FRESNO COUNTY.

BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R. towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now being constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

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Consist of stock in the canals and entitle the owner to one-eighth of 2 fe 6 inches of water, to 20 acres, being 2½ times the usual amount supplied to colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. Nearly one-half already sold.

Price, $22 to $40 per acre, on very easy terms to actual settlers.

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SAN LUIS OBISPO, CAL.

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ISAAC GOLDTREE,	R. E. JACK, Treasurer.
R. E. JACK,	C. H. PHILLIPS,
C. H. PHILLIPS.	Secretary and Manager.

THE PASO ROBLES, SANTA YSABEL, and EUREKA RANCHES,

Recently purchased by the West Coast Land Company, are now offered for sale in subdivisions.

This immense body of land, including 12,000 acres unsold of the Huer Huero ranch, belonging to C. H. Phillips, comprises 64,000 acres of rich, virgin soil. It lies in a compact body, in the center of San Luis Obispo county, and is within from 9 to 20 miles of the sea coast. It is covered with white and live oak timber, is one of the most picturesque bodies of land in the State, and requires

NO IRRIGATION.

It has an abundance of living water, and where not sufficient for domestic use, good water can be had at a depth of from 10 to 40 feet. It has an average annual rainfall of 21 inches, exceeding by six inches that of Santa Clara county, one of the most prosperous counties in the State.

The extension of the Southern Pacific Railway from Soledad southward traverses these lands for 15 miles throughout their entire length, placing the property within eight hours of San Francisco.

These lands are offered at from $10 to $30 an acre, and are all susceptible of the highest cultivation. In salubrity of climate, productiveness of soil and location as to market, they are equal to lands in Los Angeles and other counties, which readily bring from $100 to $200 and upward; and as to price and terms, offer the best inducements to those seeking homes on any part of the Pacific Coast. The survey of the

PASO ROBLES RANCH

Has been completed. The maps and catalogues are now ready, and will be sent free on application.

This ranch, containing 20,400 acres, has been subdivided into 230 lots. It is 12 miles from the sea coast, and is 20 miles north and west from San Luis Obispo city.

This ranch was one of the earliest granted by the Mexican Government and having been held by the same party for over 30 years, has never before been offered for sale. It consists exclusively of land of the choicest character, and is second to none in the State for the production of wheat, wine, fruits, raisins and olives.

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One-third cash; balance in 4 equal payments at 2, 3, 4 and 5 years; interest, 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser. A deposit of $25 will be required in all cases to cover expenses of sale.

C. H. PHILLIPS, Manager,

West Coast Land Co., San Luis Obispo, Cal.

☞Send for Catalogue and Map.

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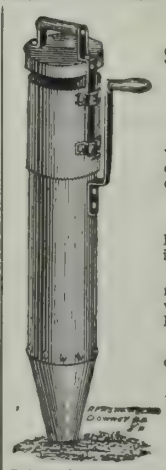
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OYSTERS, Wagner's, 2-lb.	14 cts
CLAMS, 1-lb., 14c., 2-lb.	22 cts
CORN STARCH.	6 cts
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And all other goods equally Low

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A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

Central California Citrus Fair.

[Written for the RURAL PRESS by H. M. H.]

The Citrus Fair to be held in San Jose, under the auspices of the Horticultural Hall Association, promises to surpass the most sanguine expectations of the managers. The Board of Directors, consisting of Hon. Cyrus Jones, President, Capt. Frank Dunn, Secretary, H. G. Keesling, A. R. Woodhams, Mrs. S. P. Saunders, Mrs. Ingalls, and others, are sparing no pains to make this the most successful fair ever held in San Jose.

The fair will be held in the new Horticultural hall, which is 80 feet wide by 166 feet deep. Hon. David Belden, Judge of Department 1 of the Superior Court, will be invited to deliver the opening address on Monday evening, Feb. 7th. There will be a musical and literary entertainment every evening during the week. On Tuesday evening Company B, of the First Regiment, Capt. A. K. Whitton, will give an exhibition bayonet drill. This will be followed by musical selections under the direction of L. Jacox. Thursday evening Prof. J. W. Rainey will have charge of the program, and on Friday evening Prof. Boots will act as manager.

Responses have been received from nearly all the counties invited to send exhibits. Fresno will make a fine show of raisins. Stanislaus will contribute a large number of oranges; San Joaquin will make a specialty of English walnuts; and Santa Cruz will have a floral display.

The hall will be elaborately decorated. The Decorative Committee consists of Mrs. D. C. Feely, chairman, Mrs. G. W. Tarleton, Mr. and Mrs. A. Loomis of Wright's Station, S. P. Saunders, A. B. Hunter, J. Powell, and G. C. Glendenning.

President Cyrus Jones, accompanied by G. W. Tarleton and Capt. Frank Dunn, has made a tour of Santa Clara county, visiting many of the principal orchards. President Jones in an interview said that there will be about 75 exhibitors of oranges grown in orchards of 10 to 160 trees. He found the trees in very fine condition, and all that are old enough were bearing.

In the orchard of J. J. Groom, of Los Gatos, 150 orange trees were planted 20 months ago, and from them he will bring 150 pounds of oranges. In nearly all the orange orchards Mr. Jones found from one to a dozen lemon trees, and they were all doing well.

On Mr. C. Yocco's place, in the foothills, one mile south of Saratoga, an orchard of 300 trees, consisting of oranges, lemons, and limes, was examined. The limes, as well as the oranges and lemons, were bearing heavily. As an evidence that these limes are appreciated, it might be mentioned that some of them were seen in the fruit stores in Saratoga.

Santa Clara produces a large number of almonds, English walnuts, and Italian chestnuts, of which there will be a fine display at the Citrus Fair. Some of the largest almond orchards in the State are to be found in this county.

Another leading interest here is the grape and wine industry. The number of people engaged in it is large, and it will be well represented at the fair. Capt. J. C. Merithew, of Cupertino, will make a fine display of wines. The Paul O. Burns Wine Co., which is about to increase its capital to $250,000, will make an exhibit regardless of expense. The table space to be used by this company will be 12 by 16 feet, and all its former efforts are to be excelled.

Judge R. F. Peckham, President of the San Jose Woolen Mills, has engaged to show blankets, cassimeres, and flannels. C. P. Bailey, President of the Angora Robe and Glove Co., has also agreed to exhibit.

Among the promised entries are the following:

San Jose—A. C. Woodsum, one box oranges; Judge Rhodes, one box oranges, also English walnuts; Mrs. E. Hagenmeyer, one box oranges; A. S. McWilliams, dried fruits, egg plums, etc.; C. R. Seeley, five boxes oranges, English walnuts; H. M. Hervey, English walnuts; Mrs. Kipp, oranges; John Klee, oranges.

Berryessa—Isaiah Shaw, four boxes oranges, one box lemons; W. Crites, two boxes oranges; W. R. S. Foye, eight boxes oranges.

Milpitas—Mrs. Mary Miller, four boxes oranges, one box lemons; W. Cameron, one box oranges, three dozen lemons; Evans Bros., one box oranges, two boxes lemons; James Janes, one box oranges, one box lemons; Henry Curtner, two boxes oranges, one box lemons; Walter J. Curtner, several boxes.

Mountain View—J. B. Bubb, one box green tomatoes and peppers.

Evergreen—Dr. Mintie, three boxes oranges, two boxes lemons; Dr. Babb, one box oranges; P. Pellier, one box oranges, English walnuts and olives; D. B. Fuller, three boxes oranges; G. Cain, one box oranges; Chas. Smith, three boxes oranges, one box lemons; A. J. Fowler, two boxes oranges, one box lemons.

Arrangements have been made to run excursion trains from Los Angeles to the fair, the rate for the round trip being fixed at $21 with a rebate of $5. Renewed interest in Santa Clara county as a citrus-growing region is being awakened. A large number of real estate transfers have been made during the last two weeks.

It is to be hoped that all the invited counties will exhibit, and that the interest in the Central California Citrus Fair will not be confined to Santa Clara.

HULLING CALIFORNIA WALNUTS.—A Vacaville reader wishes to know how to take the hulls off California walnuts. Who will tell?

The Colonists at Topolobampo.

In the PRESS of July 10th last was given a brief account of the plan and prospects for a co-operative colony (the Credit Foncier) which it was proposed to found in Sinaloa. Under concessions from the Mexican Government 200 or 300 settlers have since gone upon the ground and literally pitched their tents by Topolobampo bay. It was, if we remember rightly, Dec. 9th when we saw L. A. Gould, the successful Placer county fruit-grower, and our old friend and contributor, Isaac B. Rumford, with his wife and son, embarked upon the steamer Newbern for a Mexican port. A few days since we had the pleasure of receiving one letter from them and seeing others, portions of which will no doubt prove interesting to our readers.

It appears that the colonial party on the steamer numbered 33 men, 6 women and 12 children, some of whom were evidently unused to that mode of travel. The earlier pages of the letters are full of cheery and entertaining notes of the voyage, with many suggestions as to conveniences and comforts on the way down by water, for the benefit of those who may follow as steerage passengers.

Extracts from Mr. Rumford's Letters.

TOPOLOBAMPO CITY, Dec. 21, 1886.

We got off the steamship on to our sloop at 8 P. M., Sunday, for Topolobampo, but were becalmed so that it was sunset, Monday, before we came alongside the stone pier, where the colonists—some 170 of them—were waiting to receive us, the Stanley family playing strains of musical greeting. After three cheers for the different bands of colonists, we came ashore to the hand-shaking and warm supper that should have satisfied any appetite with its variety of beef, fish, bread, butter, mushes, sauce, tea, coffee, etc. The city is built now with tents on the hillside and looks like a mining camp. It is a minor city, which will look very different when it comes of age. The families are to move from here 35 miles to the new ranch on the Fuerte river and build a city there.

We met A. K. Owen and Mr. Peet on the steamship. They are both live men. They have now gone back to the States to attend to business for the colony, after which they will return hither. Mr. Owen said: "Tell all who come to bring a tent with them," and we say bring plenty of blankets, as we find use for such clothing as we wore in Oakland.

We sent you letters yesterday. Sara posted them while I was out rolling rock to make a road on which we may haul our traps to the Fuerte river. When the road is finished, say in two or three weeks, we expect to move all the women and children there and build the first city at that place of sandstone and lime. One of our company is now off to burn the lime. At the Fuerte there is a regular farm and fruit ranch, with plenty of good water; while here is nothing but stony hills, covered with brush, except where it has been cleared for the tents.

In front of us is a beautiful bay or harbor, full of splendid fish in great variety. There are also two kinds of oysters—large ones that grow on rocks, and a smaller variety, similar to California oysters, which grow on trees or plants that are under the water. I got a stick, night before last, about 18 inches long, thickly covered with bivalves of fine flavor. Willie protests that they are not Edenic if they do grow on trees! There has been so much else to do that the colony has not found time yet to develop that branch of industry, so few of them have been brought in by the boatmen.

All our drinking water is brought in boats from the islands in the bay, where it is found abundantly by digging into the sand. Dry grass is also brought from the islands for bedding. Our people have put up a variety of shelters—none very secure in case of rain, which we do not expect for some months. Our neighbor, Mr. Patrick, brought lots of carpet; one turned over a frame makes a fine roof, and another is for flooring, while the sides are of the same. Our linen tent answers well for shelter, but we wish the carpet had not been left behind.

Axes are always needed—one for every tent. But no one need cut wood for private cooking stoves, as all the cooking is done by the company, and those who brought provisions, dishes, etc., turned them all over to the company for general use. We are the only party, so far as we know, that does not eat at the public table; and our only reason for not doing so is, that we have no use for the cook, but take our grain and fruit in our own tent at the close of the day. Grain is very scarce here this year, some three and one-half cents per pound, when it is usually only one-half cent. Corn is the only grain they produce; but our farmers are planting, and in three months a supply of green corn will be ready, and other kinds will come on later. The company has to pay $1 per 100 for oranges, and sells them to us for 15 cents per dozen in labor. That is all the fruit we have had so far, except Alden apples, of which we brought a 20-pound box. The people have been afraid they might run out of some kinds of provisions, and Mr. Owen has telegraphed East for no more colonists to come until we get provided for and be better organized o receive them. Especially do we want no more women and children, of whom we have a very full supply. A class of eight boys are to be schooled during the morning and work for three hours, say from two to five, at building road, or whatever there is they can do. We are to have a kindergarten here soon.

The climate is lovely; cool enough for two or three blankets at night, with medium warm clothing for the day. The company takes your provisions and credits you for them. You eat at the public table at 45 cents a day (three meals), but it is proposed soon to establish a restaurant where you shall pay for what you call for.

Mr. Rumford closes by wishing all his friends a joyous Christmas and a Happy New Year; and we wish him and his fellow-pilgrims success.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Jan. 20-26.	Portland. Rain	Temp.	Wind.	Weather.	Red Bluff. Rain	Temp.	Wind.	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S.Francisco. Rain	Temp.	Wind.	Weather.	Los Angeles. Rain	Temp.	Wind.	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.70	49	SW	Fr.	*.—	47	S	Cy.	.00	53	SE	Cy.	.75	51	SE	LR	.20	60	S	Cl	.04	58	Nw	Fr.
Friday	.94	44	SW	Fr.	.00	54	W	Cl.	.02	54	Nw	Cl.	.26	55	Nw	Cl.	.00	56	SE	Cy.	.00	58	S	Cy.
Saturday	.25	44	S	LR.	.00	50	N	Cl.	.00	50	Nw	Cl	.00	51	N	Cl.	.00	62	SE	Cl.	.00	59	Nw	Cl.
Sunday	2.04	41	Nw	HR.	.00	50	N	Fr.	.00	50	E	Cl.	.00	54	N	Cl	.00	67	NE	Cl.	.00	63	Nw	Cl.
Monday	1.10	40	S	Fr.	*.—	53	N	Cl.	.12	54	SW	Cy.	*.—	54	Nw	Cl.	.00	68	SW	Cl.	.00	61	Nw	Cl.
Tuesday	.04	41	S	Cy.	.00	49	N	Cl.	.00	45	Nw	Cl.	.00	51	E	Cl.	.00	70	E	Cl.	.00	60	Nw	Fr.
Wednesday	.43	42	S	Cy.	.00	51	N	Cl.	.00	47	Nw	Cl.	.00	52	Nw	Cl.	.00	66	S	Cl	.00	60	SW	Fr.
Total	5.50				* —				.14				1.01				.20				.04			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

A Ghost

Is a myth, but solid reality will be known by those who write to Hallett & Co., Portland, Maine, thereby learning, free, about work that they can do and live at home, wherever they reside, at a profit of from $5 to $25 and upward daily. Some have earned over $50 in a day. Capital not needed. Hallett & Co. will start you. All is new. Delay not. Pay absolutely sure from start. Wealth awaits every worker. Both sexes. All ages.

THE NATIONAL STUDS OF FRANCE.—No Government exercises an influence upon the horse breeding of its country equal to that of France. Under the Minister of Agriculture a department exists that expends $3,000,000 annually for the promotion of horse breeding. This department comprises 22 great National Studs, in which are kept 2500 of the finest bred stallions, that during the breeding season are distributed for service throughout the country. Large numbers of Percherons are owned by the Government, whose preference for this breed is plainly indicated by the following emphatic language in a speech, at the great Percheron horse exhibition of France this year, by the Minister of Agriculture, M. Develle, who said: "I must not forget, gentlemen, the reason of this fete. Allow me therefore to speak of the Percheron horses, and congratulate you on the sucessful efforts you have made to perfect and perpetuate the grand old race of the Perche; a race *that is by far the best if not the only true race* in France. Under the direction of distinguished men the Societe Hippique Percheronne has become large and powerful, and to-day it is controlling and guiding the whole of the breeding district. The Societe possesses its 'Golden Book,' and after having seen is concours, I can say, without fear of saying too much, that the Government means to give the whole of its power, influence and support to the Societe Hippique Percheronne, which, by its stud book, is keeping up the true breed." The Minister's regard for this breed is further shown in his subsequently ordering the purchase of 50 registered Percheron stallions this season for the Government studs.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
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Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber please show the paper to others.

New Subscription Terms.

Our recent new terms for inducing payment of subscriptions in advance are meeting with favor in all quarters. New subscribers are coming in and old patrons are again entering their names.

We are confident of greatly increasing our large list of subscribers within the next few months.

A few subscribers have complained of paying at the rate of $3.50 when fully one year in arrears. To induce all such to settle up, we will, *during the next 30 days*, give all such the privilege of paying all back dues at the rate of $3.25 per annum.

Jan. 22, 1887.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to anyone who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING JANUARY 18, 1887.

356,102.—HAME TUG—S. B. Davis, Eureka, Cal.
356,312.—WHEEL FOR SLIVERING JUTE—H. P. Garland, San Quentin, Cal.
356,282.—ELECTRIC ARC LAMP—A. Harding, Oakland, Cal.
356,317.—SLIDING GATE—James & Lazenby, Compton, Cal.
356,284.—REVOLVING PLOW—A. F. La Shells, Biggs, Cal.
356,285.—SHIELD FOR BOILER FURNACES—Wm. Madden, S. F.
356,287.—ORE FURNACE—T. McGinnis, Anaconda, M. T.
356,295.—WINDMILL REGULATOR—H. R. Stephens, Soledad, Cal.
356,180.—BUTTER WRAPPER—S. Tilton, San Gorgonio, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

NORMAN HORSES —By some oversight Theodore Skillman's advertisement of his latest importation of Norman horses has appeared in the RURAL without having his name and address printed at the bottom. Really, however, it does not matter much, because Mr. Skillman is so prominent as a horseman, and so well known as a resident of the Petaluma district, that most readers could supply the deficiency of their own knowledge. For the benefit, however, of newcomers, we shall append the name and address hereafter.

REMOVAL.—Arthur Bull has removed his growing business in this city to No. 26 Beale street, where he has an ample and convenient warehouse for displaying his line of agricultural implements and machinery.

MINERAL WOOL has come so largely into demand that it is now made directly from raw materials placed in the furnace, and not from such ores only as will produce other merchantable products.

J. PROCTOR THOMAS, commission merchant of this city, publishes free a Produce Report, to inform farmers and country dealers what their consignments will bring in round lots on the wharf.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED, the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price $1).....$0.25
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3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt..... .50
4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated..... .25
5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations..... .05
6.—To NEW Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new"..... .....Free
7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
9.—Pacific Coast and Eastern Dailies, Books and Periodicals, *except special publications*, we can usually give 10 to 15 per cent off advertised retail rates.
10.—March of Empire, by Mallie Stafford..... .25
11.—Life Among the Apaches, 322 pages, stiff cloth .25
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14.—Dewey's Pat Newspaper Fileholder (18 to 36 in.) .25
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19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable..... .50
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26.—How to Tell the Age of a Horse..... .05
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O. J. ALBEE, Santa Clara, has the finest fowls this season he has ever raised. Parties needing new blood will do well to write him before buying. Prices to suit the times.

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W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

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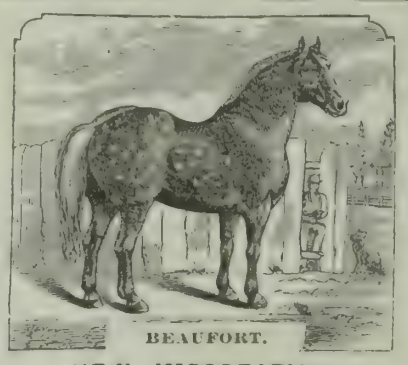
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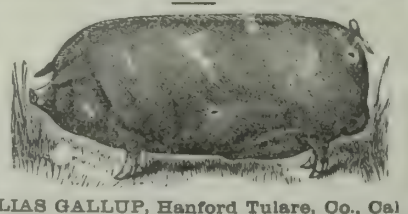
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Eleven First Prizes in Classes for Age.
One Second Prize in Classes for Age.

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Best herd of thoroughbred Jersey Cattle over 2 years old.
Best herd of thoroughbred Jersey Cattle under 2 years old.
Best herd of thoroughbred Guernsey Cattle of any age.

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Best bull, and three of his calves of any age or breed—Jersey bull "Jack Lowe" (7518).
Also, the Gold Medal awarded by the State for most meritorious exhibit of horned animals.

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One Second Prize in Classes for age.
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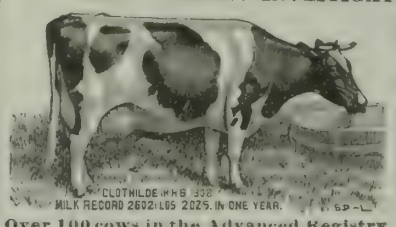
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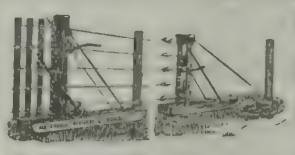


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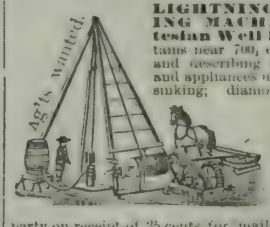
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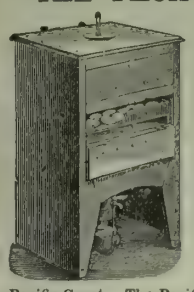
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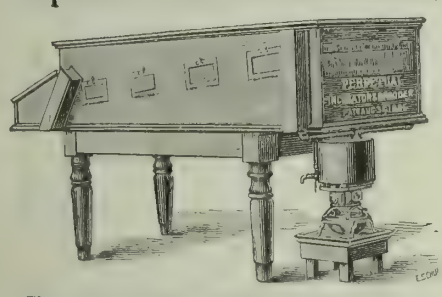
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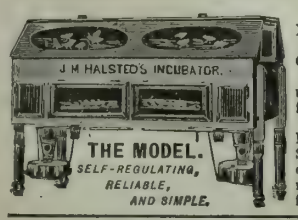
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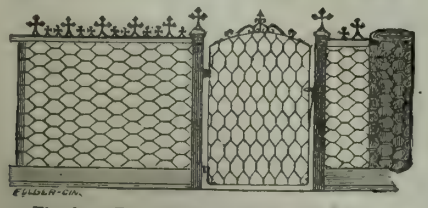


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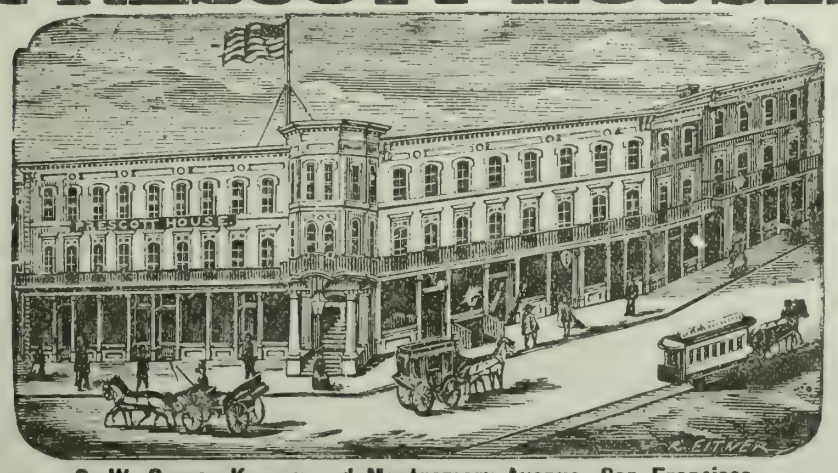
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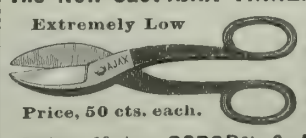
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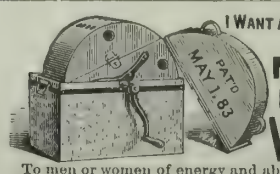
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S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 26, 1887.

The past week has ruled dull except in grain options on Call, which were active at slight fluctuations. The English wheat market for cargoes just shipped is slightly higher, but at the close the tone is weaker, as the following cable shows:

LIVERPOOL, Jan. 26, 1887.—Cargoes off coast, slow. Cargoes on passage and for shipment, buyers hesitate to operate. Cal. wheat, off coast, 37s. Cal. wheat, just shipped, 38s 6d. Cal. wheat, nearly due, 37s 3d. French country market, steady. Liverpool wheat, spot, quiet but steady. Liverpool wheat, Cal., 7s 4½d@7s 7½d. Weather in England, fine.

Foreign Review.

LONDON, Jan. 24.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: The damp weather has lowered the condition of the English grain offering, causing a general decline. Sound parcels, however, maintain their values. In London the buyers made bids two shillings below the local and country values. The sales of English wheat during the week are 49,793 quarters, at 36s 4d, against 63,191 quarters, at 29s 9d, during the corresponding period of last year. The trade in Foreign wheat is irregular, and values are against the sellers. Flour, owing to large American shipments, has declined from 6d to 1s. Corn is rather weaker. Linseed advanced 6d. Seventeen cargoes of wheat have arrived; 8 were ordered away and 9 are remaining, including 7 California, one Oregon, and one of American red winter. To-day there was some inquiry for wheat, and values were firmer. Flour was steady. Oats are dull and 3d cheaper. Linseed is from 3@6d cheaper.

Eastern Wheat Market.

NEW YORK, Jan. 23.—Wheat has ruled rather quiet; the transactions the past week have been comparatively moderate, and the fluctuations small. Spot closed quiet, ¼c and ¼c higher for the week. Options closed firm and quiet as follows: January, 92⅝c; February, 92⅞c; March, 94c; April, 94¼c; May, 96½c; June, 97¼c; July, 97¼c; August, 98¼c.

London Wool Market.

LONDON, Jan. 25.—The new series of wool sales were opened to-day. About 8000 bales were offered. There was a large attendance. The competition among foreign buyers was brisk, compared with the closing prices at the last sales. Australian greasy improved ½d, and scoured, from 1d@1½d; Cape of Good Hope and Natal white, ½d@1d, and greasy ½d. At present advices 242,481 bales are available.

The following are to-day's sales in detail: Victoria, 1300 bales, scoured, 9½d@1s 7½d; greasy, 1d@1s 1½d; New South Wales, 800 bales, scoured, 1s 2d@1s 6d; greasy, 6d@11. South Australia, 1500 bales, scoured, 1od@1s 6d; greasy, 5½d@10. Queensland, 200 bales, scoured, 11d@1s 5½d; greasy, 9½d@10½. New Zealand, 800 bales, scoured. 1s@1s 2d; greasy, 6½d@11½. Cape of Good Hope and Natal, 200 bales, snow white, 1s 2d@1s 7½d; greasy, 4½d@9½. Sundries, 600 bales.

Eastern Wool Markets.

BOSTON, Jan. 22.—The demand for wool the past week has been active, and sales of all kinds amount to 2,694,100 pounds. Business, however, has been larger than these figures show, as considerable domestic wool has been sold which will not be reported until next week. Some 1300 bales of Australian also has been sold, to arrive. The market is very firm on all desirable wools. The only weakness is found in Territory wools. All the improving features noticed last week are retained, and, although no material advance has taken place, the tendency of the market is upward. It would be no surprise to see prices go higher. There has again been a large number of manufacturers present here in search of bargains, but they found none, and bought freely at full prices. There was a firm tone in the market, and at the close all branches of the trade spoke encouragingly of the situation. The demand is moderate for California wool, and sales are reported of 20,000 pounds spring and 100,000 pounds fall, on private terms. There have been no sales of spring California wool reported; small stocks. Fifty thousand pounds Valley Oregon sold at 25c, and 50,000 pounds super and extra at 33@40c. California spring is quoted at 22@27c; ditto fall, 17@21c. The receipts of the week have been 3771 bales domestic, and 1414 bales foreign.

NEW YORK, Jan. 23.—A more decided improvement was developed this week in the wool market, low and medium grades being taken more freely by manufacturers. Fine wools seemed more or less neglected, but holders remained confident, especially in view of the recent improvement in European markets, and the advance attained at the opening of the Antwerp sales. The London sales, which open next Tuesday, are awaited with considerable interest by dealers, and an improvement is confidently looked for. The sales for the week included 50 bales California, at 22½c; 150 bags of fall, scoured California, at 48c; 25,000 Mexican, at 15@18c; 25,000 fall California, at 14c; 20,000 Eastern Oregon, at 24c. The Philadelphia market is active, and a stronger demand is running chiefly on low, quarter, and medium grades. Lower grades are in supply, and have advanced 1@2c above the prices accepted in December. In all cases previous asking rates are more easily obtained. Among sales were 25,000 pounds Territory fine, at 22c; 30,000 pounds Nevada fine, at 20c; 1000 pounds Oregon fine, at 30c. The Boston market continues active, and manufacturers are quietly renewing stocks, believing that wool will go no lower, and may go higher. Among sales were 93,000 pounds Territory, at 20@25c; 330,000 pounds California spring and Oregon, at 22@25c.

PHILADELPHIA, Jan. 25.—Wool is firm and prices are unchanged.

BOSTON, Jan. 25.—Wool is firm with a good demand. Ohio and Pennsylvania X 34c ₩ lb; XX 34@36c; XX and above, 36@37c; Michigan X, 32@32½c; No. 1 wool held at 38@39c.

NEW YORK, Jan. 25.—Wool is quiet and about steady. Domestic fleeces, 30@38c ₩ lb; pulled, 14@35c; Texas, 9@25c.

New York Hop Market.

NEW YORK, Jan. 23.—There are some indications of a change for the better. Receipts of foreign hops have fallen off materially, and there is a demand here for choice Pacific Coast hops for England. This demand may not be attended by results of striking importance, but it has assumed such shape that no one need be surprised if several hundred bales are found moving across the Atlantic before the end of the month. It is stated on good authority that a first-class article can be sold for export at very near the best prices bid by local dealers. States, 1885 crop, are in rather better demand, with rumors of some export inquiry. Coast crop of 1886, prime to choice, 23@25c; same, fair to good, 18@22c; 1885, good to prime, 8@10c.

Chicago Fruit Market.

CHICAGO, Jan. 22.—California oranges are slow, the market being overstocked with fruit from Florida, and rules weak. The prices range from $2.75@3.50 for California varieties; Washington Navels, $5@5.50. The dried fruit market rules firm and steady. Those who have any fruit on hand are holding it, as it will soon be wanted. There is very little fruit to be had from the country, and there is no prospect of any coming forward very soon. California dried fruit is selling moderately, and prices rule steady. Prunes, French, per lb, 8½@11½c; plums, pitted, 11@13c; peaches, halves, 12@14c; halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London layers, 20-lb boxes, per box, $1.55@1.60; raisins, loose Muscatel, per box, $1.35@1.40.

Dried and Canned Fruit at the East.

NEW YORK, Jan. 23.—Canned tomatoes are moderately active, with sales reported at $1.05@1.10. California pears, $2.50@3.25. Dried fruit—For raisins, excepting Valencia, which are mainly inquired after and command full prices, the market rules easy, on account of the limited demand. New Valencia, 5¾@6c; do layer, 8@8¼c; two-crown loose Muscatel, $1.35@1.40; three-crown, $2.15@2.50; London layer, $1.87½@1.90; California loose, $1.55@1.90; do London, $1.70@2. Turkish prunes are firm, at 6@6¼c; French, scarce and strong, at 8½@8¾c for 60's and 90's. Currants, firm, at 4⅞c; Citron, weaker, at 16¾c. Figs, quiet, at 6½@12c.

California Products in New York.

NEW YORK, Jan. 23.—Seeds—California mustard quoted at 3¾@4½c. No sales reported. California walnuts, 12c.

Local Markets.

BARLEY—The market for sample parcels rules exceedingly strong, with buyers finding some difficulty in meeting their requirements. Quite a number of interior points are purchasing in this market, which is something unusual at this season of the year. On Call, trading has been large, with marked fluctuations reported. Sales on Call to-day were as follows:

May—100 tons, $1.10¼. Buyer season—300 tons, $1.18½; 500, $1.18¼; 300, $1.18; 100, $1.17⅞; 400, $1.17⅝; 200, $1.17½; 500, $1.17½ ₩ ctl.

BAGS—Both buyers and holders are watching the weather, and in the meantime there is nothing doing.

FLOUR—Retail dealers have bought more heavily, in anticipation of another advance soon. Millers, as a rule, report a continued good demand.

EGGS—Under heavy receipts, cool weather, and a moderate demand, the market is easy at lower quotations.

BUTTER—The market is completely demoralized, notwithstanding heavy shipments to the East. This condition the PRESS foretold early in April of last year. The supply of pickled and packed butter is simply excessive and is sold at almost any figure.

CHEESE—The market, under light receipts and a continued good demand, is very strong at an advance.

WHEAT—Holders continue to offer sparingly, necessitating buyers to pay well up so as to have their wants met. The supply in the State is light and well concentrated, with holders indifferent sellers as long as the rain holds off. To force sales, lower prices will have to be accepted; to buy, full figures are paid. On Call, trading has been very heavy the past week. Sales, to-day, were as follows:

Morning Session: Buyer season—1400 tons, $1.69; 600, $1.68⅞; 1600, $1.68¾; 500, $1.68⅝; 1100, $1.68½ ₩ ctl. Afternoon Session: Buyer season—500 tons, $1.68; 1100, $1.67⅞; 300, $1.67¾; 500, $1.67⅝; 1800, $1.67½; 100, $1.67⅜; 1700, $1.67¼; 100, $1.67⅛; 800, $1.67; 560, $1.66⅞; 200, $1.66¾; 100, $1.66⅝; 100, $1.66½; 100, $1.66⅜; 1100, $1.66¼; 400, $1.66⅛; 200, $1.66 ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Immediately following last week's report the wheat market became stronger, with slight advances each day up to Tuesday under fair buying orders and holders' firm attitude. On Tuesday the Call board weakened off. Answers received from inquiries instituted in leading farming counties show there can be no doubt but the acreage seeded to wheat is very considerably below last year at this date. Take the San Joaquin and Sacramento valleys, and all answers are of a uniform character, viz., that the plant on summer-fallowed and early-dried plowed land is looking exceedingly well, with the outlook favorable to a large outturn with well-distributed rains from now on; but on lands not seeded, work, as a rule, has only been commenced, and as the ground is only wet to on an average of six inches deep, the prospect is not of an encouraging character. A better idea, probably, can be formed of the situation by the following: Mr. Louis Howes owns several thousand acres of land in Stanislaus county which he rents out. His contract calls for his tenants to have the land seeded by January 12, but owing to the extreme dryness the farmers were unable to plow and seed the land, consequently he had to extend the time, and it is only the past week that plowing was inaugurated, and unless heavy rains are had within the next ten days, work will have to be suspended. Mr. Howes says that to insure a crop in Colusa, Sutter, Sacramento, Butte, San Joaquin, and Merced counties, seeding should be finished by January 20, at the latest. Oregon and Washington Territory advices continue favorable. Advices from the East, taken as a whole, are not favorable regarding crop prospects, but, as yet, it is too early to form a correct idea of the outlook in the large wheat-producing States.

Continued dry weather since our last review, together with a large short interest and strong holding, made further advances in the barley market, up to Tuesday, when a bear raid was made and prices shaded off. It is now very generally conceded that the supply in this State is not in excess of our requirements, and with rains holding off a higher range of values is not at all unlikely in the near future. Dealers have taken hold of the market more freely, under the impression that the market will likely rule considerable higher before next harvest.

Oats are steady, but dull at full prices, with a light supply of choice to draw from. Western oats continue to come to hand, but the quality is only fair, and consequently are only taken by consumers under protest.

Rye and buckwheat move slow at unchanged prices.

Corn has a firm tone, with a fair inquiry ruling for the more choice grades, but fair grades are dull. The supply of choice Californian is light for the season, but heavy supplies of Western are against the market.

A sensational report s telegraphed to this coast from Chicago regarding the Bank of Nevada dealing in wheat. From all that can be ascertained, the bank has nothing to do with wheat or anything else further than making advances in money to operators requiring them, provided the margin is safe. But there is no doubt that the bank loans, in a season, several millions of dollars on wheat and barley.

Feedstuffs.

Owing to holders' firm attitude and only moderate receipts, dealers have been compelled to bid up on hay so as to meet their consumptive demand. Choice to extra choice hay is in light supply, necessitating higher bids to induce selling. Other grades are also firmer. Choice to extra choice hay, $13@14.50; good, $11.50@12.50; fair, $9@10.50.

Bran, middlings, and ground barley are stronger, with a good demand ruling.

Feed carrots are slow at unchanged prices.

Fruits.

Notwithstanding that the receipts of oranges the past few days show an increase, still the market holds strong at full prices. The home demand and shipments up north are reported to be larger than at this time last year.

Lemons and limes are slow and in buyer's favor.

Apples more slow, with some difficulty in getting over $1.50 per box for the more choice. The consumption is light.

The following, taken from the *Anglo-American Times*, will prove of interest to horticulturists: "California can unquestionably send fruits to England in fine condition if the growers will properly organize. The fruit that is reaching New York from California is coming in quicker and in better condition, and rising in the market yearly. An immense quantity of grapes reach England packed in sawdust, and California 'beats creation' as a grape-grower. The waste of fine fruit in California is shocking, considering there are so many consumers, and to this subject, at the American exhibition in London, Chicago should devote the closest attention. London is the best market for fruit; for grapes, peaches, nectarines, fine pears, and this sort of fruit California produces in perfection; and the carriage across the continent is now so rapid and by a system so perfect, as well as across the ocean, that the gardens of Southern California should never be at a loss for a sale. The fruit gardens of California are a far better investment than cattle ranches; indeed, we are only now being educated up to the fruit-consuming point, which any nation would be sure to reach, given the opportunity of a full, cheap and continuous supply."

In dried fruits a continued good demand is reported for both home and Eastern orders.

In raisins there is nothing of interest to note, further than a strong tone for the better grades.

Live-Stock.

In beef cattle the market is reported easier, owing to free offerings by sellers. It is claimed that with improved pasturage, herders will be indifferent sellers, when a better tone can be expected. In mutton sheep there is no decided selling pressure, which steadies the market. In hogs there is a fair demand at unchanged prices, Quite a large number of medium horses were sold last week, ranging from $75 up to $150 each. Several matched teams also sold at from $500 to $1000 per span. The latter price was only reached by a span of good steppers, well mated.

For grain or stall-fed animals on foot, the price is about one-third less than dressed, and for grass-fed about one-half less.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 3¼ to 3¾c for heavy and medium; hard dressed, 5½ to 7c per lb; light, 3 to 3¼c; dressed, 5 to 6c; soft hogs, live, 2 to 2¾c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Cabbages are in good demand at an advance for shipping to distant points. It is claimed that a still higher range will obtain soon.

Celery and cauliflowers are firmer, with a better demand ruling.

The market is better supplied with garden truck, with some shading from last week's high prices.

Potatoes continue to hold strong prices, with choice in good demand, at full figures. New potatoes are coming in more freely, with the quality improving and prices receding.

Onions, if choice and good keepers, are in request at high prices, but cut and otherwise defective are slow, with prices favoring buyers.

Miscellaneous.

In wool, trading continues light. The market has a better tone, owing to the improvement abroad.

In hops there is nothing new to report. Both buyers and sellers are waiting for the coming of spring, when an improved demand is looked for.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	212,568	154,010
In port, disengaged	86,267	108,000
In port, engaged	35,306	53,076
Totals	334,141	315,086

The above gives a carrying capacity, as follows: 1887, 525,297 short tons; 1886, 498,342 short tons; increase over last year, 26,955.

Overland shipments from California last year were the largest since the railroad opened. We sent East 231,397 tons, against 169,741 in 1885. Most of this was California produce, some of it being coffee, tea, etc., in transit. Some of the items were: Barley, 12,292 tons; beans, 8628 tons; wool, 15,321 tons; wine, 5,548,500 gallons; canned goods, 15,059 tons; raisins, 6347 tons; hops, 2937 tons; flour, 1802 tons; ripe fruit, 11,308 tons; oranges, 13,337 tons; dried fruit, 3045 tons.

Ducks have receded in price, owing to the subsidence of the Chinese New Year demand. Geese are steady, as are turkeys. Choice hens, roosters, and broilers are wanted at full figures.

Beans are strong, with Eastern shipments continued, which keep stocks well in hand.

In seeds there is an inactive demand ruling.

San Francisco, Jan. 20, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Jan. 26, 1887

BEANS AND PEAS.			
Bayo, ctl	1 40	@	1 55
Butter	1 25	@	1 85
Pea	1 60	@	1 70
Red	1 25	@	1 40
Pink	1 25	@	1 40
Large White	1 80	@	—
Small White	1 60	@	1 70
Lima	2 00	@	2 45
Bld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER			
Cal. fresh roll, lb	15	@	17½
do Fancy br'nds	17½	@	21
Pickle roll	14	@	16
Firkin, new	15	@	16
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	14	@	17½
Eastern style	15	@	17
EGGS.			
Cal., ranch, doz	25	@	26
do, store	20	@	22½
Ducks	—	@	—
Oregon	—	@	—
Eastern	—	@	—
Utah	—	@	—
FEED.			
Bran, ton	15 50	@	16 50
Cornmeal	26 00	@	27 00
Grd Barley ton	25 00	@	26 00
Hay	9 00	@	14 50
Middlings	22 00	@	23 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	35	@	50
FLOUR			
Extra, City Mills	4 52½	@	4 90
do Co'ntry Mills	4 35	@	4 77½
Superfine	3 35	@	3 90
GRAIN, ETC.			
Barley, feed, ctl	1 12½	@	1 20
do Brewing	1 15	@	1 30
Chevalier	1 45	@	1 60
do Coast	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White	1 05	@	1 10
Yellow	1 02½	@	1 10
Small Round	1 05	@	1 15
Nebraska	1 00	@	1 05
Oats, new	—	@	—
Choice feed	1 55	@	1 65
do good	1 40	@	1 50
do fair	1 30	@	1 37½
do black	1 40	@	1 55
do Oregon	1 30	@	1 60
Rye	1 10	@	1 25
Wheat milling, Gilt edged	1 65	@	1 67½
do Choice	1 60	@	—
do fair to good	1 55	@	—
Shipping, choice	1 62½	@	—
do good	1 57½	@	1 60
do fair	1 50	@	1 55
HIDES.			
Dry	—	@	16
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb,	9	@	12
Honey in comb, fancy	12	@	13½
Extracted, light	4	@	4½
do dark	3½	@	4
HOPS.			
Oregon	20	@	27½
California	20	@	27½
ONIONS.			
Pickling	—	@	—
Silverskin	1 00	@	1 90
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, bd shl	6	@	9
Soft shell	15	@	19
Brazil	10	@	11
Pecans	9	@	11
Peanuts	4½	@	—
Filberts	10	@	11
POTATOES.			
Burbank	1 20	@	1 70
Early Rose	90	@	1 10
Cuffey Cove	1 10	@	1 45
Jersey Blues	1 10	@	1 50
Petaluma	—	@	—
Tomales	1 00	@	1 40
River reds	1 00	@	1 15
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 20	@	1 50
Peerless	1 25	@	1 75
Salt Lake	—	@	—
Sweet	1½	@	2
POULTRY AND GAME.			
Hens, doz	5 50	@	7 00
Roosters	5 50	@	7 00
Broilers	5 00	@	6 00
Ducks, tame	6 00	@	9 00
do Mallard	2 00	@	3 00
do Sprig	1 00	@	1 50
Geese, pair	1 00	@	2 00
do Goslings	—	@	—
Wild Gray, doz	3 00	@	—
Turkeys, lb	13	@	15
do Dressed	14	@	16
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	75	@	85
Quail	90	@	1 00
Rabbits	1 00	@	1 25
Hare	1 50	@	2 00
Venison	8	@	10
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9
Medium	8½	@	9
Light	10½	@	11½
Extra Light	12	@	12½
Lard	7	@	9½
Cal. Smoked Beef	11½	@	12½
Hams, Cal	10	@	12½
do Eastern	13	@	14
SEEDS.			
Alfalfa	9	@	10
Canary	3½	@	4
Clover red	12	@	13
White	17	@	—
Cotton	20	@	—
Flaxseed	2½	@	2½
Hemp	4	@	4½
Italian Rye Grass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	3	@	3½
Brown	2 25	@	2 75
Rape	1	@	1½
Ky. Blue Grass, 1d quality	11	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	1½	@	4
Refined	5½	@	6½
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	22	@	25
Sact'o valley	17	@	20
Free Mountain	17	@	20
N'hern defective	—	@	—
S Joaquin short	14	@	18
do long	—	@	—
Cava'y & Ft'ill	—	@	—
Oregon Eastern	17	@	22
do valley	23	@	25
Southern Coast	13	@	17
FALL—1886			
Southern, free	17	@	20
do defective	12½	@	19
Northern, free	20	@	23
do defective	15	@	20
Middle free	18	@	21
do defective	15	@	18

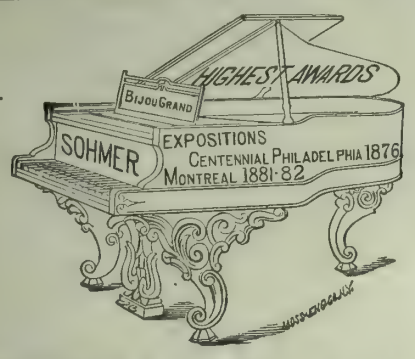
Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Jan. 26, 1887.

Apples, bx com	75	@	1 00
do choice	1 25	@	1 75
Bananas, bunch	1 50	@	2 50
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries blk	—	@	—
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Figs, bx	—	@	—
Grapes	1 00	@	3 25
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	4 50	@	6 —
do Cal. box	50	@	1 00
Lemons, Cal., bx	1 00	@	1 50
do Sicily, box	2 00	@	2 50
do Australian	—	@	—
Nectarines, box	—	@	—
Oranges, Com'bx	1 50	@	2 00
do Cho'ce	2 25	@	3 50
do Navels	3 00	@	5 50
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
Raspberries ch	—	@	—
Strawberries ch	5 00	@	6 00
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	6½
do evaporated	11	@	12½
Io quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	22
Blackberries	9	@	11
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	22
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	10	@	13
Plums, pitted	9	@	10
do unpitted	3	@	4
Prunes	6	@	8
do French	8	@	10
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 65	@	—
Imperial Cabinet, fancy	1 90	@	—
Crown London Layers, fcy	1 70	@	—
do Loose Mus-			

do choice	—	@	—	catels, fancy	1 60 @ —
Pears bx	—	@	—	do Loose Muscatels	
do choice.....	—	@	—	.....	1 50 @ —
do Bartlett, bx	—	@	—	Cal. Valencias..	1 50 @ —
Persimmons, Jap, bx.....	1 00	@ 1 50		do Layers	1 50 @ —
Pineapples, doz.	4 00	@ 5 00		do Sultanas...	1 50 @ —
Pomegranates. b	—	@ —		Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.	
Plums lb	—	@ —		VEGETABLES.	
Prunes bx.....	—	@ —		Artichokes. doz.	— @ —
do Egg.....	—	@ —		Asparagus ? lb..	35 @ 40
Quinces bx.....	—	@ —		do cultivated.	— @ —
Beets, sk	1 00	@ —		Okra, dry, lb...	10 @ 12½
Cabbage, 100 lbs.	75	@ 1 00		do green box...	— @ —
Carrots, sk.....	25	@ 35		Parsnips, ctl....	1 50 @ —
Cauliflower, doz.	—	@ —		Peppers, dry lb..	10 @ —
Eggplant, ...bx	—	@ —		do green, lb..	15 @ 20
Garlic, lb new..	—	@ —		Pumpkins pr ton	12 00 @15 00
Green Corn, small box....	—	@ —		Squash, Marrow fat, too.....	7 00 @12 00
do large box..	—	@ —		do Summer bx	25 @ 40
Green Peas, lb...	7½	@ 12½		String beans lb..	— @ —
Lettuce, doz....	10	@ —		Tomatoes box..	1 25 @ 1 50
Lima Beans lb..	—	@ —		Turnips ctl.....	75 @ 1 00
Mushrooms, bx.	—	@ —			



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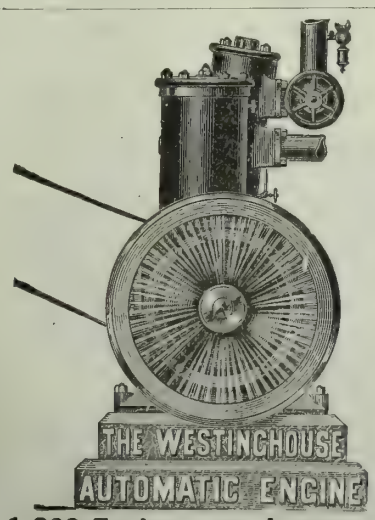
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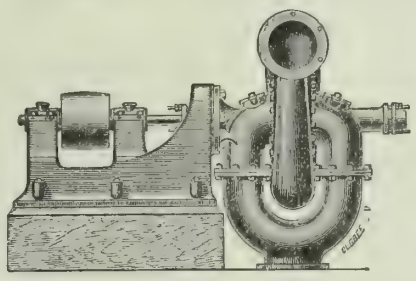
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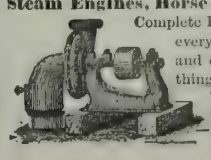
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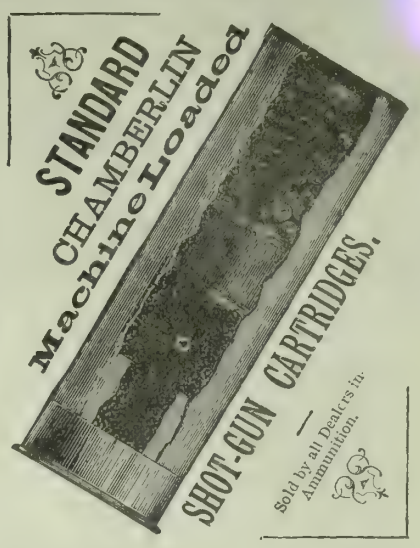
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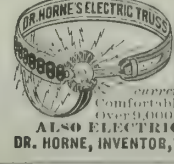
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Seeds, Plants, Etc.

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NEVADA CITY, CAL.

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The Finest Collection of Nut-Bearing Trees to be found in the United States.

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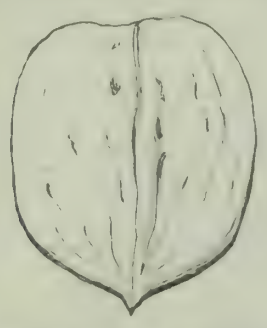
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Serotina, Franquette, Mayette, Chaberte, Gant, Parisienne, Mesange Walnuts.

The leading varieties of Europe, highly recommended for beauty and quality of the nuts, fertility and hardiness of the kinds.

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81 Varieties of English Gooseberries, all sizes, shapes and colors, and "true to name."

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We have ourselves given this name of "Lot D'Ente" to this type, so extensively propagated in the valley of the Lot (France). **True from the root** and not grafted, and which we have introduced into this country. This type of the D'Ente Prune is not at all propagated by grafting, which would do away with its chief qualities of being more vigorous, more **long-lived** than grafted trees, and a **gum-resistant** stock.

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This kind is altogether propagated **true from the root** in its home, valley of the Loire (France), and offers greater advantages than grafted trees, as being also more vigorous, more long-lived, and a **gum-resistant** stock.

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Constantinople Quince—The largest, most precocious and prolific of all quinces.

Ever-bearing Black Mulberry of Spain—Medlar, Sorbus (all those kinds should have a place in all gardens)

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I have for sale seed of **Vitas Californica,** proof against Phylloxera, which I will send at $1 per pound for 5 pounds or more, or $1.50 per pound for less than 5 pounds.

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2000 Apples	5 to 10c.	9500 Pears	5 to 10c.
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Neither in quantity, quality, varieties, size of trees, nor for health and vigor of same. We offer $1 each for every scale bug found on our nursery trees.

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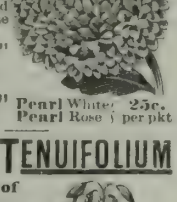
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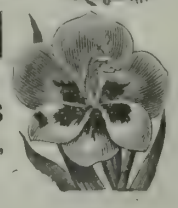


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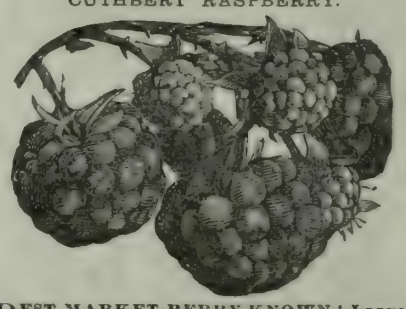
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I OFFER FOR SALE, AT $10 PER M., 200,000 CUTTINGS of the following renowned varieties, tule-packed, F. O. B. at depot: Cabernet Sauvignon, Cabernet-Franc, Merlot, Verdot, Malbec, Tinturier, Portal-Ploussard, Mondense, Petite Sirrah and Grosse Blue. Also from $2.50 to $5.00 per M. all other well-known wine and table grape varieties, too numerous to mention. The above Grape Cuttings are from our vineyard, and we guarantee them true to name, healthy, in good condition, and offered at lowest market price. Ten (10%) per cent invariably in advance on small orders. Information furnished, if desired. Will not guarantee cuttings procured for accommodation from other vineyards, but will always select them from responsible parties and in healthy locations. The Burgundy and Bordeaux varieties are very scarce, and parties desiring to plant this winter would do well to secure their cuttings at once, and save money and disappointment.

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All fresh, hardy, stocky trees. Monterey Cypress, 8 to 12 inches high, transplanted in boxes of 70 trees each, at $2 per box or $25 per 1000; 12 to 15 inches, of 50 trees per box, at $4 per 100 or $35 per 1000. Seedlings, 3 to 4 inches, at $5 per 1000. Blue Gums, 8 to 12 inches, of 100 per box, at $1.50 per 100 or $14 per 1000; 12 to 18, of 70 per box, at $1.50, or $20 per 1000; 18 to 24 inches, 50 per box, at $1.75, or $30 per 1000. Large, straight sacked or bulked Gums or Pines shipped only after the roots have sprouted through sacking. Blue, 4 to 6 feet, at $15 per 100; 6 to 8 feet at $20 per 100; 8 to 10 at $25 per 100. Red or Round Leafed Gums, 4 to 6 feet, at $20 per 100; 6 to 8 feet at $25 per 100. Pines, 2 to 3 feet, at $20 per 100. Acacias, 2 to 3 feet, of 30 trees per box, or 3 to 4 feet of 20 trees per box, at $2 per box. Also fresh-gathered, strong-growing seeds of the Monterey or Italian Cypress, Blue, Red or Iron Bark Gum or Acacia in variety at lowest rates. Postage Stamps taken for orders not exceeding $2. No other than the best of stock will be sent from this nursery, as we desire to make a friend of every cash customer.

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At $3 per M.

Muscatel, Muscat, Sultana, Flame Tokay and Emperor; also Rooted Vines at $12 per M.

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Apricot, Plum, Prune and Peach on Myrobolan Plum stocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

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In first, second, and third sizes, all budded on stocks grown from best Tennessee natural seed.

McDEVITT CLING PEACH, the Prize Winner.

The best varieties of Plums budded on SEEDLING Myrobolan Plum Stocks.

WALLING PLUM, a new extra choice variety from Oregon. Botan, Ogon, and Kelsey's JAPAN PLUMS.

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New American, Downing, Russian, White, and Black MULBERRIES.

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I take pleasure in calling your attention to my special price of Seedlings

NOW READY FOR SHIPMENT:

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Apple Seedlings	$6 00
Pear Seedlings	8 00
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☞The above Seedlings are imported from France, and are all in prime order. Also choice Bartlett Pear and Apple Trees.

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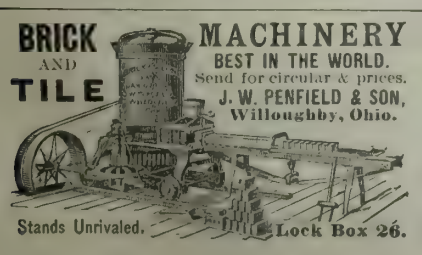
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WHALE OIL SOAP,

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WHITE ADRIATIC FIGS.

THE LARGEST STOCK OF TREES IN THE STATE.

The Only Fig that Should be Planted for Drying.

ALSO A LARGE STOCK OF OTHER TREES:

Apples, Pears, Peaches, Plums, Prunes, Apricots, Cherries, Nectarines, Olives, Oranges, Lemons, Shade Trees and Ornamental Shrubs, Greenhouse Plants, Roses, Etc.

A Complete Assortment of Rooted Grapes and Cuttings.

ALL TREES WARRANTED FREE FROM SCALE OR APHIS.

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We offer to the public our usual excellent and well-assorted stock of

FRUIT, NUT & SHADE TREES,

SHRUBS AND PLANTS.

ALL OUR TREES ARE GUARANTEED FREE FROM SCALE, and are grown without irrigation on new land distant from old orchards.

☞We would call especial attention to our "Bulletin" Smyrna Fig, imported by us direct from the Levant and now proved, in numerous instances of fruiting, to be the

TRUE FIG OF COMMERCE.

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33d YEAR. **STOCKTON NURSERY.** 33d YEAR.

WHITE ADRIATIC,

SAN PEDRO, SMYRNA, and ENDRICH FIGS.

Præparturiens, Macrocarpa, Mayette, and Chaberte Walnuts, Chestnuts, Persimmons, Mulberries, Olives, Oranges, Lemons, Pears, Apples, Peaches, Apricots, Cherries, etc. Plums and Prunes on Myrobolan Stock, Grapevines, Ornamental Trees, Shrubs, Palms, Magnolias, Clematis, New Roses and Hothouse Plants.

TRY THE PERSIAN MULBERRY.

NO SCALE—I wish particularly to call the attention of Fruit-growers to this fact. I have repeatedly had my nursery examined by experts, and upon no occasion have they found any scale or any indication of scale. The nursery is isolated from orchards, both old and new, and as I take every precaution in importing new varieties to get only clean stock, I feel perfectly warranted in guaranteeing every tree sold by me free from scale and other pests that are proving so disastrous to the fruit interests of the State. SEND FOR CATALOGUE.

E. C. CLOWES, Proprietor, Successor to W. B. WEST.

STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.



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OR ANYTHING IN THE NURSERY LINE, without first writing for our valuable FREE Catalogue, the BEST we ever issued, containing the Rarest New and Choicest Old.

21 LARGE GREENHOUSES
33d YEAR. 700 ACRES.

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W. ATLEE BURPEE & CO., Philadelphia, Pa.

PACIFIC NURSERY,

Lombard Street, between Baker and Lyon, San Francisco.

20,000 OLIVES, PICHOLINE, 2-year old, $150 to $200 per 1000.
2000 OLIVES, MISSION, 2-year old, $35 per 100.
100,000 BLACKBERRIES, LAWSON and KITTITANY and others, $10 per 1000.

Also a large stock of Monterey Cypress, Monterey Pine, Blackwood Acacias, Peppertrees and other desirable Evergreen Fruit and Shade Trees.

For the Gardens I offer Roses in the best and newest varieties, Pink, Camellias, Azaleas, Rhododendrons, Araucarias, Dioamas, Laurustun and other varieties at low prices. F. LUDEMAN.

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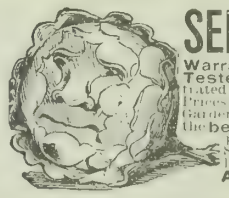
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CENTENNIAL CHERRY, LOVE-ALL PEACH, and full assortment of Fruit Trees, Grapevines, Shade Trees, etc. LEONARD COATES,
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Large stock; fine plants; for the season of 1886-87. Address

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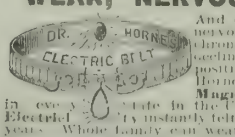
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COMBINED HARVESTERS for 1887

MANUFACTURED BY THE

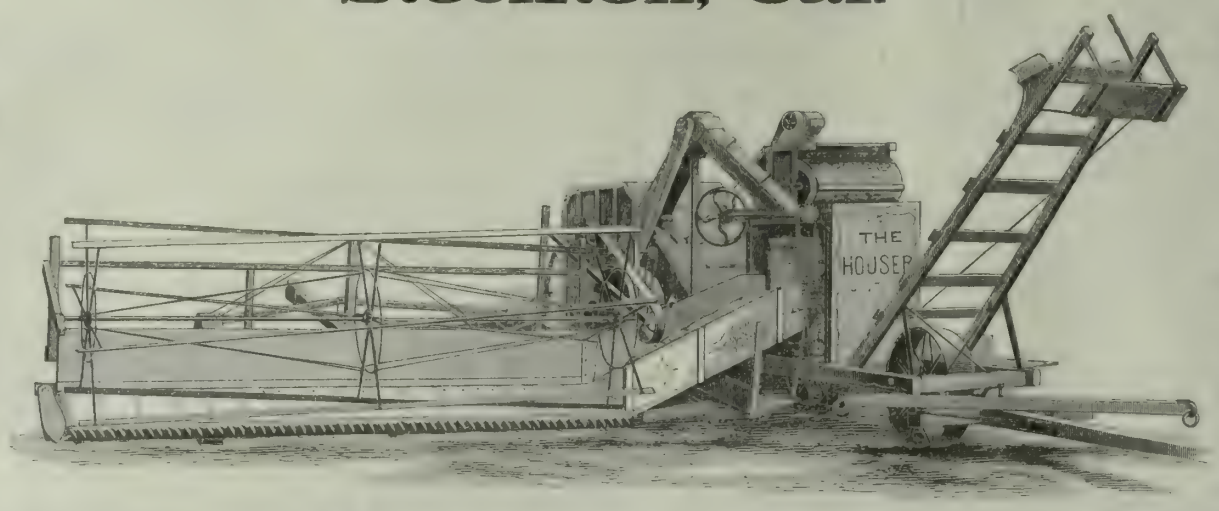
STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS,

Stockton, Cal.

PULL AND PUSH.

BELT AND GEARED.

HOUSER,
MINGES,
SHIPPEE,
—AND—
POWELL.



The "HOUSER" BELT IS OUR STANDARD, But will Build Geared to Order.

—ALSO—

MINGES,
SHIPPEE,
—AND—
POWELL.

THE HOUSER COMBINED HEADER AND THRASHER

IS THE BEST KNOWN AND MOST POPULAR HARVESTER ON THE COAST.

It has had 7 years of unparalleled success in our grain fields. A Pull and Belt machine, combining Strength, Durability and Capacity, and as Light as consistent with strength. Every Houser Harvester sold has given entire satisfaction.

We have not space to give a full description of the Houser Harvester, but append as many Testimonials of 1886 as room will permit, showing what the Houser has accomplished, and what our grain raisers think of them. **Save this page—keep it for reference, and read further Testimonials on outside page "Rural Press," issue of January 15, 1887.**

TESTIMONIALS:

WATERFORD, CAL., Dec. 18, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: In regard to my 14-foot Houser Harvester, purchased of you last spring, will say that I harvested 1400 acres, saving the grain well and cleaned it so nicely that it sold readily for A1 milling wheat. I worked 20 animals throughout the season, and my entire crew were boys under 21. They had no trouble in the management, although without any experience with a combined machine. It was the cheapest and easiest harvesting that I have ever done. I have carefully examined other Harvesters in field work, and from my observation and experience can safely assert that the Houser was the lightest draft and most perfect working machine in the field. After finishing my harvesting I rented my machine to a neighbor, who cut between 500 and 600 acres, using 18 animals. I am perfectly satisfied with the Houser and cheerfully recommend it to all grain-raisers. Yours respectfully, R. H. BENTLY.

SMITH'S FERRY, CAL., Nov. 30, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I have two 16 foot Houser Harvesters. Purchased one in 1885, hitched on to it, and run four miles without stopping, and then to turn around, cut right along 1500 acres in 54 days with four men and 20 animals and paid out for extras and repairs only $1.65, and it cost me less than $25 this year to fit it for field work, and have averaged 31 acres a day with it this season. I also purchased a 16-foot Houser of you this season, which run right along and did good work. They are a success. I don't want anything else. Have never run over 20 head of stock. They cut and cleaned the grain well. I harvested 100 acres in two and one-fourth days, yielding 2750 bushels, and a goose would starve on what was left. I farm some 6000 acres, and if I had to head and thrash the old way, would give up farming. I put my grain in the sack as cheap as I used to head and put in the stack. The work is lighter and my stock came off 75 pounds each heavier than they went on. I cannot say enough in favor of my Houser machines. Yours truly, T. G. REED.

STOCKTON, CAL., Nov. 28, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser Harvester I purchased of you last harvest gave entire satisfaction. I harvested 1200 acres, a part of which was very heavy straw, lodged and badly tangled. I had no trouble in cutting a full swath in all kinds of grain, with four men and 20 animals. I harvested my grain for 80 cents an acre. Say what you choose in favor of the Houser Harvester—you cannot say too much. Yours respectfuily, O. R. SMITH.

HILLS FERRY, Dec. 18, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I take pleasure in stating that I bought of you, in June of this year, a 16-foot Houser Harvester, and cut with it 1400 acres of grain. It gave entire satisfaction, saving the grain well and cleaning it in a satisfactory manner. I consider the Houser Harvester the most profitable farming machine in use and would recommend it to all farmers in need of a combined Harvester. Yours truly, J. C. STURGEON.

MODESTO, CAL., Dec. 7, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser Combined Harvester I purchased of you gave entire satisfaction. I cut 1180 acres, averaging 26 acres a day; 20 animals pulling it easily through heavy grain. My expenses for the season were, including oil, $22. It is the only Pull Combined Harvester that is so geared as to do away with side draft, and a great saving over the old way of cutting and thrashing; not only in cost but in time.

Yours respectfully, JAMES THOMPSON.

BUTTE CITY, Nov. 25, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I have used a 14-foot Houser Harvester for two years, and cut about 900 acres each year to my satisfaction, averaging 25 acres a day. The land was sandy loam, with heavy crop; worked 4 men and 24 animals. Yours truly, JOHN M. WILES.

WILLOWS, Dec. 5, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I am well pleased with my Houser Harvester. I cut 1050 acres of barley and wheat in 38 days. My grain all stood up, but had some very heavy straw to handle. My expenses and trouble were about half they would have been by the old mode of harvesting. My machine was a 16-foot cut. I run it with four men and it never cost me one dollar the whole season. Yours truly, J. A. HILL.

TULARE, CAL., Dec. 2, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: In reply to yours of Nov. 19th, we will say that in our knowledge and judgment the Houser Harvester is far ahead of any that has ever yet been built, and is given up to be the best by a great many in this section, even those having machines of a different make. They require less animals to do the work. Our Houser will go through any grain, standing or down, unless the straw is too long to be carried to the cylinder without going in large bunches. It is 14 foot cut. We harvested 1370 acres, taking 56 days—an average of over 24 acres a day—thrashing all the way from 100 to 400 sacks per day. We worked four men and 22 animals, and the team walked along quite easily—was not hard on them. Would rather work my team to a Houser Harvester than a Header. Yours truly, THOMAS & J. L. TURNER.

TURLOCK, Nov. 26, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 18-foot cut Houser Harvester we purchased of you this season came fully up to our expectations in every respect. With four men we cut 3000 acres of very weedy grain in 87 days, an average of 34½ acres a day and 11 bushels per acre. Our land was very sandy, and we used from 20 to 30 horses. Yours truly, OSBORNE BROS.

DIXON, CAL., Nov. 29, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser Harvester I purchased from you last summer was a complete success. I harvested 925 acres in 37 days with 4 men and 18 small mules. They pulled it very easily and came out in better order than after a run of heading the season before. The wheat was mostly heavy, and a portion lodged. My machine did not cost me $5.00 during the whole season. It is ready for another season without any expense for repairs whatever. It is in perfect light-running order. The Houser is the machine for any farmer that wishes to make money. Respectfully yours, R. E. L. STEPHENS.

WINTERS, Dec. 16, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: We harvested our 1300 acres with the 14-foot cut Houser. Some of the grain was heavy and some light, and much of it badly lodged. We used four hands (two of them boys); part of the time we used 16 mules and a portion 18, and all were in better condition when we finished than when we commenced. Our expenses for repairs were only 50 cents. It did excellent work in both cutting and cleaning our wheat, and we find that we put our grain in the warehouse for $1 an acre. Yours respectfully, J. L. RICHARDS, J. R. BRIGGS.

SELMA, Nov. 30, 1886.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: Our 14 foot cut Houser gave us great satisfaction, having harvested about 900 acres, 80 acres of which (belonging to our neighbor, Mr. John Elder,) yielded 150 sacks more than 80 acres—as good a stand—alongside harvested with at header and thrashed with steam thrasher. Our grain was very heavy; in places lodged flat, and large tracts having tar-weeds nearly as high as the wheat. We could get all the down grain. Yours, very respectfully, A. C. RYCE, JAMES W. RYCE.

WE GUARANTEE OUR HARVESTERS TO DO GOOD WORK WITH PROPER MANAGEMENT.

Please call at our Works, corner Main and East streets, Stockton, examine our Harvesters, read our Testimonials, see or correspond with those who have used our machines. It is to the interest of all grain growers to inspect our HARVESTERS for 1887 before purchasing Harvesting Machinery. Give us your orders soon, that we may fill them for the early harvest. There is no danger of breaking the frame, gearing or shafting, as we build them so strong in every respect that they cannot be broken with fair usage. They effectually stood the severe strain of field work last season, harvested more grain, at less expense, and cleaned it better than any other Combined Harvesting Machines of any description.

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STOCKTON COMBINED HARVESTER AND AGRICULTURAL WORKS, STOCKTON, SAN JOAQUIN COUNTY, CALIFORNIA.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

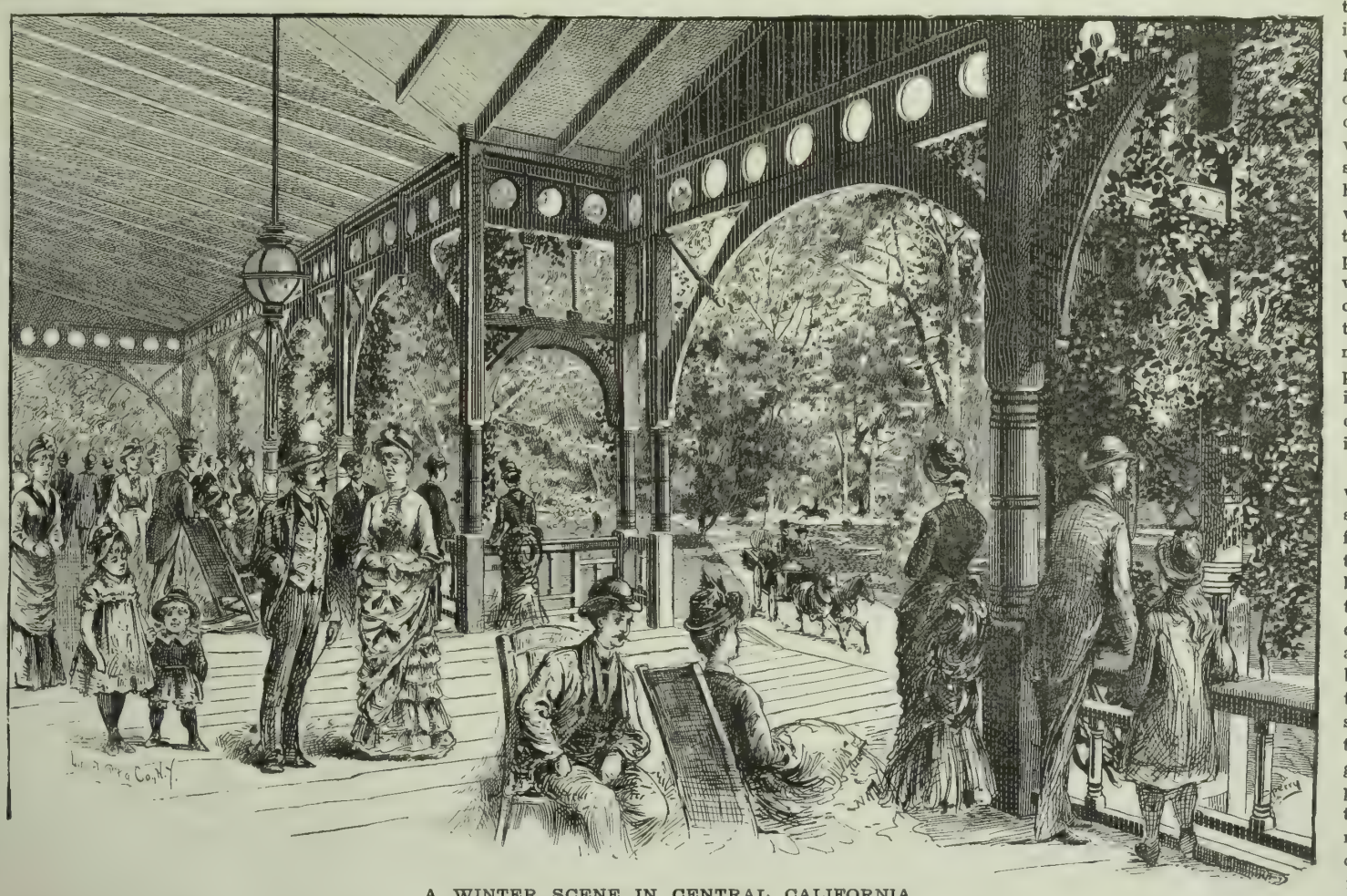
Vol. XXXIII.—No. 6.] SAN FRANCISCO, SATURDAY, FEBRUARY 5, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

California Winter.

Our whole people seem now determined that the world shall have a better knowledge of the climate and resources of California. The heralding of California's charms, which was so well and diligently done by our southernmost counties, has brought them wealth, population and progress beyond the expectations of the most sanguine. The lessons of their success have been so striking and forcible that there is now throughout the whole State a disposition to advance all parts of the commonwealth to the light of public favor. Next week there will be a grand display of the winter products of the San Jose district in Horticultural hall, San Jose. An account of this display will be found upon another page of this issue.

We have given many pictures to show the beauties of the winter landscape in California. The one which appears upon this page presents rather a different phase of the subject, and while giving glimpses of the beauties of nature in the background, prominent position is awarded to the people who are reveling in them. The engraving is especially timely because just at this season our resorts are full of the winter-fliers from all the harsher climes of the world. They have been coming by train-loads, and are still braving the rigors of the overland routes in the hope of dropping finally into the paradisaic mildness of California. They will not be disappointed. They are receiving this year far more sunshine than their contract calls for, for in lauding the climate we always reserve some days for heavy rainstorms, but this year it has been tourists' weather continuously. The engraving shows how the Eastern visitors pass the midwinter in California and the beauties which surround them.

We do not give this picture for our own people; they know it well enough already, but it may please them to send the engraving to distant friends and thus illustrate the claims which perhaps they make for the State in their correspondence. In affirmation of such claims we can say that it would be difficult to exaggerate the delights of life in California; we seldom go out into the air without feeling if not voicing the sentiment, that the climate of California is beyond ordinary powers of description. Let those who do not believe it, try it.



A WINTER SCENE IN CENTRAL CALIFORNIA.

Sawdust in the Truckee.—On the 28th of January there was received in our State Senate a message from the Governor, accompanied by a joint resolution of the Nevada Legislature, calling attention to the fact that citizens of California are throwing sawdust into the Truckee river, thus destroying the food fish in it, and injuring the volume and power of the water, which is used in Nevada for reclaiming desert wastes, and requesting that measures be adopted preventing such injury to the river. In noticing the above practice, the *Nevada State Journal* adds: "This is an old grievance and a positive injury to the people and agricultural interests of the State, that should have been abated years ago. The waters of this fine little river are much injured for irrigation and domestic use below the mills, and the valuable trout fisheries comparatively ruined. Appeal after appeal has been made to California for justice in this respect without effect. The upper section of the river is in California, and her millmen care little for the detriment to us caused by running their sawdust into the river."

Hog Cholera.—J. G. Fredericks informs the Winters *Express* that, since adopting G. W. Scott's remedy, he has lost but two or three hogs by the disease. The remedy consists simply of stone coal pulverized and mixed with the feed given the animals. They eat it greedily, and it seems potent in effecting a cure.

The Stockton Pavilion.—The committee on the building fund have been very industrious and successful in selling life memberships in the San Joaquin Valley Agricultural Association at $50 each. Notwithstanding some differences of opinion as to the best location, about $19,000 had been secured up to last Monday night, and they were still pushing the canvass.

Carp on the Increase.—Stray items now and then go to show that the interest in carp-culture, which was so lively a few years since, left some solid results. For instance, the Stockton *Independent* mentions that one day last week Antone Galgiani shipped to San Francisco, per steamer, 20 large boxes of carp. The fish, which were of fine quality, were caught in the French Camp slough. There is a fair demand for carp in the S. F. markets.

The San Jose Fair.—On another page of this issue will be found quite a full announcement of the preparations for the citrus fair at San Jose next week, with an engraving of the front of the new Horticultural hall. There is every reason to expect the fair will be a notable success, and we advise our readers generally to take this opportunity to visit San Jose. We acknowledge receipt of complimentary tickets to the fair and return our thanks to the management.

The Santa Clara Valley Agricultural Association has decided to hold an exhibition of stallions and agricultural implements, open to all competitors, March 5th.

Pure Wine.

There has arisen what appears to be an irrepressible conflict between two parties in the California wine interest, and the result is seen in many meetings, many words, many resolutions, and a state of feeling quite different from that attributed by history and tradition to the mellowing influence of wine. We do not claim to be censors or doctors on wine topics, and do not propose to run the chances of getting between the upper and the nether millstone in the issue which is now made, by venturing too far on the intracacies of the questions involved. It seems to us, however, that when it comes to a matter of pure wine and wine which may contain anything which is not absolutely poisonous, there is not much question about it.

We have always understood that California wine was to win its way because it was the pure juice of the grape, and we have been taught by those who now seem to object to having a legal definition of pure wine, that the foreign makers and rascally importers in Eastern cities were filling the throats of the people with all kinds of abominations. If this is not so, if California desires the right to put anything in wine so long as it is not rank poison, then we might as well hush up about the rascality of Eastern and foreign wine compounders.

It seems to us that if the California wine interest cannot come fully and squarely upon the platform of pure grape juice, to which nothing is added except it be also a product of the grape, then all the talk and worry and expense of legislation against adulteration has been wasted. It is a nice card for the aforesaid rascally Eastern importers and compounders, to be able to point the people of the United States that California wine men attempted to defeat a definition of pure wine which the California Legislature proposed to make, because, forsooth, it would interfere with their manufacture of a *pure* product. Can there be more than one inference from such action?

San Diego is wrestling with the question of issuing $400,000 bonds for a system of sewerage.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions

Gophers and Morning-Glory.

EDITORS PRESS:—There are a number of things I have been thinking about lately and wish to say, through the medium of your paper, to those engaged, as I am, in horticulture. Number one is

The Gopher.

I think he is the most industrious, persevering, plucky little animal we have to do with. He will live on anything, from cereals and vegetables to the bitter man root, and he is a hoarding little fellow, like the red squirrel or chipmunk in the East, only he does not have so good a place to store in. Hence his activity as soon as the heavy rains set in; for the rains spoil his store that he has laid up, and he is forced to forage till roots mature. Then is the time to bestir one's self if one has trees or vines, for anything is eatable then; and that is the chance for taking advantage of his need and giving him some poison—it matters not whether it be strychnine in beet, carrot or potato, or some of the poisoned wheat prepared and put on the market. I have tried several kinds and found them all good; and as the season of the year is at hand to do the most effective work, I will give my experience for the benefit of others who are troubled with them. There are thousands of them all around me, and I have to keep constantly on the watch.

Trapping is good, but too slow, for in the months of March and April they migrate in large numbers. I think that as many as 20 have come upon my 20 acre place in a single night. They come out of their holes (swarm, you might call it) in the night and hunt new fields. If forage is good, they immediately set about locating themselves permanently.

I use poisoned wheat, as it is the easiest to carry around. I buy it by the gallon, already prepared, and keep a tin match-box full of it in my pocket all the time. When I see fresh signs of work I dig with hoe or shovel down to their main runway and throw in about a thimbleful of the grain. Then I put something in the hole I dug to prevent the loose dirt filling their road, and cover all up dark. When they come along they are sure to find it. That is a better way than throwing it in an open hole, as they frequently shove out wheat, dirt and all as they come.

Eternal vigilance is the price of success. During the long summer heats they rarely come to the surface, but confine their operations to underground, digging and filling up as they go; so it is very difficult to find an open runway to put poison in. They are very fond of carrot, and will eat that when they will not touch anything else; but that is only in the summer when they are hoarding up grain.

Morning-Glory.

And now a few words about the morning-glory. I believe I wrote last summer about a trial made near me to exterminate it. I will say that up to date it has failed to make its appearance. The process was this: About a year ago they piled straw and coarse stable manure on it, about five feet deep, and just before a rain they set it on fire. Immediately afterward they repeated the operation. The weed failed to appear last summer, and the ground is used for gardening, being irrigated at least once a week. Some made its appearance in the road alongside the lot where it did not burn. The patch was about 40x100 feet. If it is not dead it has got a good setback.

I once knew of its being killed in a large field in Iowa. The field was sowed to oats, and just as it was ripening there came a rain, and, with the help of the morning-glory, it all went down, so it was impossible to cut it. As soon as it was dry enough the owner set fire to it and made a complete burn, and that was the last of it so far as I know—and I lived there several years afterward. This method is worth a trial, at least, by those who can apply it.

J. R. SPRINGER.

Woodland, Jan. 27, 1887.

Morning-Glory.

EDITORS PRESS:—Your inquirer upon the above subject in your issue of the 22d inst. is not the only one seeking light upon a very difficult question. The farmers on the Sacramento river are sadly afflicted with this pest in their fields. There are two kinds, known as the "large" and "small." The small kind is much the most prevalent and troublesome. Wherever found, stock eat it with avidity, even to the roots of the larger kind when turned to the surface with a plow. As a consequence, none is ever found where stock range in the summer, continual feeding during the hot season proving destructive to its growth. Its principal season of growth is during the hot months of June, July and August.

In this connection I wish to state some facts recently learned from Judge Snowball and Mr. Daniel Edson, of Knight's Landing, two very intelligent gentlemen and old settlers, both having lived on the river for 35 years. Mr. Edson said that he had a piece of land that he had often sown to wheat for his chickens and the morning-glory had completely "took it." Two years ago he decided to plant the land to fruit trees and did so. Not having any means of irrigating his trees, he determined to supply the want of water by thorough cultivation, and the land was cultivated once a week during the entire season, and he not only got a good growth of trees, but, to his surprise and gratification, he found the next year that he had succeeded in killing the morning-glory. Judge Snowball's experience is similar, only he had but a small place affected where he had planted some grapevines, and he cut it off with a shovel whenever it showed itself above the surface, going over the ground once a week, or oftener if necessary.

From these facts it is evident that the only way to destroy the morning-glory is to keep it from growing, destroying it as fast as it comes above the surface for a certain period. In these cases one season was enough; perhaps in some others two would be necessary. During the hot season it grows with great rapidity, and those that would conquer it must be persistent, but the reward will be worth the effort, for, as far as known, it grows only on the very best land. M. C. WINCHESTER.

Crofton P. O., Yolo Co.

Salt for Morning-Glory.

EDITORS PRESS:—If "Morning-Glory" will use salt after the following directions he will have no trouble to get rid of the weed in time, say from two to four years: First put on some straw and burn it off (if in the fall). Apply the salt, two inches deep, before the rains set in, so it will have a chance to melt. Do not plow nor harrow the patch when plowing the rest of the field. The summer after, look carefully in and around the salted place for any straggling plants, and if any are found salt them; and so on till all trace of the weed has disappeared. In about three years (if no more plants can be found) the patch can receive a heavy coat of manure and will soon be as good as the rest of the field. Vigilance in salting the stray plants is the key to success in this.

I know this is a remedy that never fails. I have tried it on a number of patches (aggregating about four acres) and have succeeded in totally destroying the weed. OBSERVER.

Alameda Co.

HORTICULTURE.

Assessment of Fruit Trees and Vines.

On January 28th, in the Assembly at Sacramento, Constitutional Amendment No. 1 was next taken up for consideration—an Act to propose an amendment to Section 1 of Article XIII of the Constitution, relating to revenue and taxation. This amendment exempts growing trees and vines from taxation. It was referred to the Committee on Constitutional Amendments. The majority of the committee reported against it. A minority report favoring its passage was also brought in and read, as follows:

"The undersigned, being a minority of the Committee on Constitutional Amendments, to whom was referred the Act proposing an amendment to Section 1 of Article XIII of the Constitution of the State of California, relating to the exempting from taxation, under the laws of this State, growing vines and fruit trees, most respectfully beg leave to dissent from the majority report of said committee. The resources of our land are drained to the fullest capacity in support of State, county and city governments. Nearly every enterprise in this State depends ultimately upon the productiveness of our land for its support and prosperity. The profits of the farmer go out to enrich and sustain people engaged in all the other industries of life. A failure in the crops of the farmer produces stagnation in the business of the country, and its prosperity or insertion depends upon the productiveness of the earth. With proper encouragement every fertile spot of land in this State will be set to vines or trees that is not already utilized with that particular improvement appropriate to its locality. If the farmer is obliged to plant his vines and trees, and pass through years of experiment, labor and expenditure, without profit, but with an increased taxation upon his experiments, labors and expenditure, nothing would be more calculated to stifle in its infancy those industries upon which the wealth of the State is destined to be based. The laws and rules of taxation are founded upon policy, and not upon logic. Upon the principle of logic there is no reason why any property should escape taxation. The oak tree which furnishes acorns is a valuable assistance in some parts of the State, at least it represents value in firewood. The natural gases that spring from the ground, the alfalfa and other grasses that are planted, are not taxed, and should not be; but if we argued from such principles of logic the rules and system of taxation would necessarily include these articles. The fruits of the soil while growing should be considered in taxation only in so far as they illustrate the value and capacity of the land. There is as much policy in exempting a certain class of articles from taxation as there is in appropriating from State funds money to encourage and protect these articles. The question, then, is not 'do trees and vines represent value,' but whether it is the policy of the State to protect and encourage the man who seek the hills and mountains to perform his labor, expends his capital, and spends his life in enriching the coffers of the State in building up its wealth and in beautifying its domains. Whether the men who exhaust all their wealth in experiments, and until its success is assured, profitless, and which is attended with more than ordinary hardships, should need encouragement, is a question we candidly submit to the consideration of this house, and most earnestly recommend the submission of the policy contained in said proposed amendment to the people of the State of California."

Signed by F. L. Coombs, Russell Heath, John W. Bost.

The committee reports upon the bill were the subject of much discussion. The minority report was finally adopted.

Speeches were made against the proposed amendment by Ellsworth, Matthews of Tehama, Knox, Brierly and Ohleyer. In favor of it by Wilcox, Coombs and Heath. The vote on the adoption of amendment stood ayes 35, noes 27, and as it requires a two-thirds vote, was lost. Wilcox gave notice of reconsideration.

We shall watch for the future course of the measure.

Horticultural Society Meeting.

An informal meeting of the State Horticultural Society was held in this city Jan. 28. The attendance of fruit-growers upon the meeting of the Fruit Union the preceding week prevented their coming to the city again so soon, and therefore the meeting failed of a quorum. Prof. Hilgard occupied the chair, and Secretary Wickson read several communications from California representatives at Washington in regard to the establishment of experimental stations in connection with the agricultural colleges.

Congressman W. W. Morrow wrote saying that he would present the resolution of the California State Horticultural Society in the House at once, and do whatever he could to aid in securing consideration of the bill referred to.

Senator Williams wrote: "I am in favor of the Hatch experimental station bill, and expect that it will pass this session."

Congressman H. H. Markham wrote: "I will do all I can to promote the passage of the bill."

Congressman C. N. Felton wrote: "I am in favor of the measure, and shall take pleasure in assisting in its passage."

Mr. Wickson continued to say: "By the telegrams from Washington in this morning's papers I find the following:"

Edmunds offered an amendment that nothing in the act shall be construed as binding the United States to continue these appropriations, but that Congress may at any time suspend or repeal all or any of the provisions of the act. Agreed to. The bill was then passed without a division.

"So there can," said he, "be little doubt about the bill passing, as it has always been more popular in the House than in the Senate."

The secretary also read a communication he had received from H. J. Rudisill, of Riverside:

RIVERSIDE LAND AND IRRIGATION CO., RIVERSIDE, December 28, 1886.

Dear Sir: It requires about $500 to secure all the silver and gold medals won by exhibitors from our State, and a plan is proposed in this section to ask our Legislature to donate that sum from money returned by Colonel Andrews to the State, with the condition that for two or three years the medals shall be placed en masse in exhibition at all State and district fairs that will give the proper care to them. As you are in communication with many of those entitled to these medals, will you please place the matter before them, and if it meets their approval, ask them to direct the attention of their Senators and Representatives to the matter at once. Yours truly, H. J. RUDISILL.

It was thought to be too late to attempt any action at this session of the Legislature, even if otherwise thought desirable.

Insect Pests.

There was a general discussion relating to insect pests and their repression. On another page we give the new bulletin of the State Inspector concerning winter washes, also an outline of a bill now pending before the Legislature.

For the next meeting the subject will be the French method of curing prunes and the cultivation of cork oak as shown by recent French publications: "The Cultivation of Cork Oak," by Professor Hilgard, and "The French Method of Curing Prunes," by W. G. Klee.

The meeting then adjourned.

February the Month to Graft the Fig.

EDITORS PRESS:—At your request I send you a description of my method of grafting the fig. I saw off the limb; split it through the center. If the limb is two to four inches in diameter, I put in two grafts—one next to each side or bark. I cut the wedge-like taper about four inches long and have one or two buds only. The scions should be one-half inch or less in diameter. When the grafts are both forced into the split there will be considerable space unoccupied. I fill the space with *hot* grafting wax—that is, I heat my wax so hot as to *flow very readily*. I then with a paddle cover the end of limb around the grafts, also the ends of grafts, also the edges of graft and limb, after which I take a strip of muslin one inch wide and three or four feet long (must be strong), and wrap the limb and graft, commencing an inch or two below the lowest extremity of the split, wrapping and drawing the muslin very tight, at the same time waxing each turn of the cloth with the hot wax, using the paddle. When wrapped to the top of the stub, wrap the muslin between and around each scion, waxing carefully and thoroughly. The whole secret is to keep the air excluded from the cut. Fig bark shrinks very quickly—so quick and so much that the graft has not time to take before the bark is drawn away from it and the sap channels are dry. The *hot* wax is the only perfect way to protect it from the air, and the close and tight wrapping is to prevent shrinking of the bark. In other respects the rules of any other grafting hold good. A. M. GASS.

San Diego, Cal.

Preparing Lemons for Market in Sicily.

EDITORS PRESS:—The reason that Sicilian lemons command a high price in our markets while California lemons are ignored is because our orchardists do not understand the proper method of curing them. A lemon ripened on the tree is valueless. It is not juicy, it rots easily and is thick-skinned and of too great size. If a connoisseur in such matters, you will note that imported lemons do not rot easily, are thin-skinned, juicy and of uniform size. Go to a lemon orchard in Sicily and you will find the fruit being picked when perfectly green and placed in boxes of dry sand, where it remains for four or five months to ripen; then it is sorted and shipped. None but perfectly sound fruit is packed for shipment, and, as the peel has become hardened, the danger of rotting is reduced to a minimum. Probably if California lemons were properly ripened in this way the complaints of their being bitter would cease. This fault is not in our soil nor in the varieties grown, but in curing.

MRS. M. E. DUDLEY.

Santa Paula, Ventura Co.

Stunted Walnut Trees.

EDITORS PRESS:—Will you please ask some of your expert correspondents to answer the following through your columns?

I have a few English walnut trees, 10 years old, which are very much stunted by having been planted too near a row of cypress and gum trees. They have never borne any fruit. Will it pay to dig them up carefully and plant them where they will have more room? or would it be cheaper to get a fresh lot from the nursery? Does a tree ever resume its growth after being stunted so long a time?

Benicia, Cal. V. NEWMARK, M. D.

THE FIELD.

New Method of Cleaning Wheat.

Millers and manufacturers of flour at the present age of progress have undoubtedly experienced the long-felt want of a thorough cleaning system whereby the crease of the wheat berry can be successfully approached and the impurities therein entirely removed. By the usual course of cleaning wheat by machines alone, the grains of wheat are not thoroughly scoured, as the creases in the wheat retain more or less dirt, smut, etc., that the brushes, screens, etc., do not reach.

This can now be accomplished by a process recently patented by Mr. Elias Reist, of Hamburg, N. Y. The method relates to cleaning wheat, in connection with any machine for cleaning and scouring grains, by the aid of bran put in with the wheat before or during the cleaning process.

To insure a thorough cleaning, and thereby greatly improve the quality of flour, the coarse finished bran that comes from the wheat itself is taken from the bran duster and run in with the grains into any wheat cleaner. The bran aids greatly in cleansing out the crease dirt in the grains, and works it over and polishes it much better than by any machine without its use. Especially does it remove the gum on the grains which brushes and scourers do not usually accomplish.

The coarse bran that the mill makes at the time the wheat is being ground is sufficient for the cleaning. This will be, of course, according to the quantity of wheat being run through the scourer, only the coarse bran being used. The amount of bran used is, however, not considered important.

It is well known that the brush machines are as likely as not to brush dirt into the grain creases. By the use of loose bran the dirt adheres to the bran rather than to the wheat, and, in working the berries over, is continually wiping and polishing them.

A few of the principal points of advantage claimed for this method are: A saving of power, as the wheat may be cleaned better with a less number of machines; as the bran is a powerful cleaner of itself, speed may be reduced, and consequently there will be less danger of fire and hot journals; economy, as all the machines using bran in connection may discharge into the bran bins, thus saving all the scourings. As the bran protects the berry during its course of cleaning, there will be no wheat broken, which is a great saving that alone will in one year nearly pay for the entire right to use and make all necessary changes for its use. It is the only method of polishing the entire surface and removing the dust out of the crease

without first splitting the berry. On wheat that has become musty on its outer surface the bran acts as a disinfectant, as the crease can be thoroughly wiped out and the berry cleansed sufficiently to be ground into family flour of good quality. Purer flour can be made after the crease has been thoroughly scoured and the impurities removed, as brush machines are apt to brush dirt into the crease to a certain extent. After the wheat has been scoured thoroughly and the bran separated from the wheat by aspirators, if desired, it may be run through any line of brush scourers that will not in any way break the wheat, but in all cases, to remove the loose crease impurities, it must again be treated with bran; otherwise it cannot be entirely cleaned.—*Am. Inventor.*

Our Leading Farm Products—Their Value.

In an address before the last annual meeting of the American Association for the Advancement of Science, Prof. Wiley, chemist of the Department of Agriculture, gave the following statement of the leading agricultural products of the country, taking an average of several years, the said statement being based upon the figures furnished him by Hon. J. R. Dodge, statistician for the department. It will be understood that the values of several of the products, as grain, hay, etc., are repeated in part in the products of beef, pork, mutton, poultry, etc. The statement is as follows:

Indian corn	1,900,000,000 bu	$627,000,000
Wheat	450,000,000 bu	440,000,000
Dairy (milk, butter and cheese)		370,000,000
Hay	45,000,000 tons	360,000,000
Beef, veal (dr'sd)	4,000,000,000 lbs	360,000,000
Pork (dressed)	5,600,000,000 lbs	360,000,000
Cotton	3,120,000,000 lbs	250,000,000
Poultry products (estimated)		200,000,000
Oats	600,000,000 bu	168,000,000
Potatoes	200,000,000 bu	100,000,000
Fruits		100,000,000
Vegetables		50,000,000
Wool	300,000,000 lbs	45,000,000
Mutton	500,000,000 lbs	45,000,000
Tobacco	483,000,000 lbs	42,000,000
Barley	60,000,000 bu	33,600,000
Rye	25,000,000 bu	14,000,000
Sugar	250,000,000 lbs	12,500,000
Molasses (syr'p)	45,000,000 gals	11,250,000
Buckwheat	13,000,000 bu	7,280,000
Rice	98,000,000 lbs	4,900,000
Honey	30,000,000 lbs	4,800,000
Beeswax	1,300,000 lbs	325,000
Other soil prod., seeds, wines, etc		408,945,000
Total		$3,994,490,000

Making a sufficient allowance for values that are repeated as above stated, the total of these products will not fall below $3,500,000,000 per annum.

THE CEREAL ESTIMATES.—Dispatches from Washington of Jan. 13th state that the Department of Agriculture estimates of the area, product and value of corn, wheat and oats for 1886, for permanent record, are compiled. The official work of the year has been thoroughly reviewed, with the aid of State co-operation, and all available data of crop productions and aggregates are substantially those recently reported. The corn crop, in round numbers, aggregates 1,665,000,000 bushels, grown on 75,000,000 acres, and has a farm value of $610,000,000. The yield is 22 bushels per acre, 4½ bushels less than last year. There is an increase of area of over three per cent. The average prices have increased to 36.6 cents per bushel. The aggregate product of wheat is 457,000,000 bushels, from an area of nearly 37,000,000 acres, having a farm value of $314,000,000. The average value is 68.7 cents per bushel, against 77.1 for the previous crop and 64.5 for the great crop of 1884. This is 35 per cent reduction from the average value between 1870 and 1880.

THE VINEYARD.

The Planting and Grafting of Resistant Vines.

University Experiment Station, Bulletin No. 64

In view of the growing interest in the important matter of rendering our vineyards proof against the attacks of the phylloxera, and of the delay in the publication of the report for 1886, in consequence of the accumulation of matter at the State printing office, an abstract of the main points discussed somewhat elaborately in the forthcoming report, is here given, in order that those contemplating the use of resistant stocks for this season may be assisted in their choice of varieties.

The true criterion of resistants is that the vine and its roots will not only outlive the attacks, but flourish and bear remunerative crops, under the same conditions under which the more sensitive European vines will succumb.

But every vine, like every other plant, is subject to certain conditions of soil, climate, and atmosphere for its welfare. Any vine, or any other plant, may be planted where from unfavorable conditions it will not flourish, and where a slight addition to the adverse influences may cause it to either die or maintain only a feeble existence, useless to the cultivator for profit. The resistant vines are no exception to this general rule.

Adaptation of Vines to Soils.—It is not reasonable to suppose that a vine which is naturally at home in rich, heavy lowland soils, should not only flourish but supply extra strength against attack from without, in thin, meager uplands, or on land exhausted by long cultivation; nor that a vine whose hardy roots resist the phylloxera when growing in its natural location on dry, rocky uplands, will necessarily retain this character when grown in rich, moist lowland. To a certain extent, cultivation does modify and equalize the natural soil-conditions, especially when it is thorough and is faithfully kept up. But there always remains a certain margin of natural adaptation which must be respected even in the cultivated plant, and the more because climatic and seasonal conditions may render a strict fulfillment of the best culture impracticable, or unavailing for the time being. Those cultivating adobe soils will appreciate the importance which this consideration may acquire, not only for one but for several consecutive seasons.

Species and Varieties of Resistants.—Of the American species and varieties that, for practical purposes, may be considered as resistant under proper conditions of soil and moisture, the following are the most prominent:

1. The *Vitis riparia*, or northern riverside grape and its cultivated varieties, of which the Taylor and Clinton are the chief. The resistant power of the latter is now, however, pretty generally admitted to be inferior to that of their wild prototype, although they are better adapted to a great variety of soils. The *Riparia* is in its wild state emphatically a "riverside" grape, which in its natural condition ascends into the uplands only exceptionally, when these are unusually moist and fertile. Under cultivation, nevertheless, it does well in good upland, but is of slower growth than in its natural *habitat*. It does not frequent the heavier soils as much as the alluvial loams of the upper Mississippi valley. It is of very long-jointed, slender growth, so that its canes, while of great length and bearing abundance of foliage, are often borne by a surprisingly thin trunk, which is not as easy to graft as most other varieties. The cuttings root with great ease, but generally only a portion, varying according to the soil and seasons from one-half to three-fourths, are large enough to be successfully grafted the third year; seedlings arrive at about the same condition the fourth year from the seed. To offset these disadvantages, the *Riparia* is now usually considered the most generally and tenaciously resistant toward the attacks of the phylloxera. It is very little liable to mildew.

2. *Vitis cordifolia*, the southern riverside grape, so greatly resembles the *Riparia* that for some time it was not distinguished as a separate species. While it is undoubtedly a very resistant stock, the fact that it is at home in a region noted for its perpetually moist atmosphere, seems to render it less promising for general success in California than the *Riparia*, over which, so far as known, it possesses no special advantages, save, perhaps, in the case of very heavy adobe soils, to which it is better adapted than the *Riparia*.

3. The *Vitis aestivalis* or summer grape is a native of the uplands of the States east of the Mississippi, and is at home on loam soils of good or fair fertility. It also descends into the lowlands of the smaller streams, so that it and the *Riparia* vine are not uncommonly seen side by side. But it is rarely if ever found in the larger bottoms, though quite at home in the lighter and usually well drained "second bottoms" or "hammocks." Unlike the riverside grapes, it objects to "wet feet." It is little subject to mildew. Of the cultivated varieties of the *aestivalis* grape, those of chief interest as resistants are Norton's Virginia, Herbemont, and the well-known Lenoir. The cuttings of these, as well as the wild vine, root with some difficulty; they should be rooted in nursery, and not in the vineyard itself.

4. *Vitis rupestris*, the sugar or rock grape of Missouri, is a very hardy vine, at home on rocky knolls and hillsides, where its wiry roots extract nourishment from the scanty soil and the crevices of rocks, in a climate already partaking somewhat of the aridity of the great plains. It would, therefore, seem to be of considerable promise for the foothills of California especially; of its resistance to the phylloxera there can be no question. It is, however, not easy to root from cuttings, being in this respect like the *aestivalis* varieties. In my personal experience I have found it to be of slow growth on rich upland adobe, even more so than the *Riparia*, so that very few cuttings were ready for the graft the third year; moreover, even when the top of the stock is sufficiently stout for grafting, that portion generally tapers off very rapidly downward, so as to afford very little "grip" for the graft, which has to be tied in very thoroughly. The successful grafts, however, have shown a vigorous growth and seem well joined. The multitude of wiry suckers which the stock persists in putting forth to the end of the season constitutes an inconvenience, shared to some extent by the *Riparia*, and least of all by the *Californica*, which soon gives up sprouting its easily detached suckers. The *Rupestris* is least subject to mildew of all the resistant stocks.

5. *Vitis Californica*, the California wild grape (not, as some still imagine, the "Mission" vine, which is very sensitive toward the phylloxera), has been prominently brought forward as a resistant stock for use in its native State, to the climate of which it must be presumed to be especially adapted. This reasonable presumption gives it so great a claim to attention and renders its pre-eminent success so probable, that nothing but the strongest proof of its non-resistance should induce us to relinquish its use; but experience speaks strongly in its favor. Even a cursory examination of its root habit shows that it understands the climate thoroughly. Two or three strong cord-like roots start a few inches below the surface of the ground, from a short but very stout trunk; and, without branching or emitting rootlets, they go almost directly down for from 8 to 12 inches, according to the nature of the soil. Then they begin to branch, but still with downward tendency, and without splitting into fine rootlets until they are fairly below the point to which the summer drought is ordinarily expected to reach. Unlike the *riparia*, its roots are thick and fleshy, or cartilaginous rather than wiry. It goes without saying that the *Californica*, like any other vine, may be planted in the wrong place, where its half-starved roots become hardened, and instead of yielding so as to render deformation from the bite of the phylloxera impossible, will curve and curl, and finally die and decay.

The *Californica* is very liable to mildew, and it is probably from this cause that it is but rarely found on the coastward slope of the Coast ranges, which are much exposed to the sea fogs. There is, however, no difficulty in protecting it by repeated sulphuring, up to the time of grafting.

6. *Vitis Arizonica*, the wild grapevine of Arizona and Sonora, resembles somewhat the *Californica* in its general appearance and habits of growth. In rapidity of growth it seems to be nearly or quite equal to the *Californica*, and quite its equal in resistance to the phylloxera, as well as to drought. It is subject to mildew nearly as much as the former. Its roots, also, seek the depths of the soil before branching, and the stock is stout and easily grafted. From experience had at the University, it deserves more attention than has heretofore been bestowed upon it.

Special Adaptations of the Several Resistant Stocks.—There is no reason why, in grafting grapevines, as great care should not be exercised in the selection of stocks adapted to the soil, and to the variety to be desired for bearing purposes, as is done by orchardists here and elsewhere. Just as every intelligent fruit-grower will carefully consider, when planting an orchard, what will be the stocks best adapted to his soil and locality, so the grape-grower must consider, so far as experience or other considerations can forecast it, which among the resistant grape stocks will be likely to do best in his vineyard. An improper choice will be just as fatal to success in one case as in the other; there is no *one* stock that is adapted to *all* cases.

In none of the stocks mentioned above does there appear to be any intrinsic difficulty about making a sound joint with the *vinifera* varieties. But when a strong grower is grafted upon a weak one, there may be difficulty on account of the weak base of a stouter trunk. In the reverse case there is no trouble, for a relatively stout base for a weak trunk is desirable. The strong-growing *Californica* will, in its own home, furnish just such a stock for all, or almost all, the *vinifera* varieties, which it exceeds in growth whenever planted in appropriate soils.

In my personal experience with the *Californica*, I have found only one variety which seems to exceed it a little in growth when grafted, viz.: the *Clairette Blanche*, which is an extraordinary grower. In the case of five other varieties grafted in my vineyard (Black Burgundy, Palomino, Mondeuse, Verdelho, Cinsaut) the graft junction is at the end of the season either straight (*i. e.*, a cylinder), or like a wine bottle right side up, the *Californica* stock forming the body of the bottle, the graft the neck. There can be no doubt that in these cases the stock will push the growth of the grafted variety.

Where the same varieties have been grafted on the *Riparia* or *Rupestris* stock, the case is just the reverse. Here the graft junction resembles a bottle placed *neck down*, and it is at least questionable that the stock will be able to supply fully the needs of the graft, and pretty certain that it will not tend to push the latter beyond what its growth would be if on its own root. In the case of the *Rupestris* and *Clairette* the disproportion is painful to contemplate, the quill-like stock appearing absurdly inadequate to the support of the graft that has swelled to the proportion of a man's thumb. That this is felt by the stock is apparent from the frequency with which the grafts have thrown out their own roots when on either *Rupestris* or *Riparia* stock, thus defeating the primary object of grafting at all. No such tendency is seen in the same varieties where they are on the *Californica* stock. But this, it must be remembered, happens on a soil peculiarly well adapted to the *Californica*, and on which the *rupestris*, at least, should not have been used at all.

Experience which appears in some respects the reverse of my own, has been had by the Briggs Bros. near Winters, in a light alluvial soil.

It appears that in this case the *Rupestris* finds, in the more congenial lighter soil of the Putah alluvium, favorable conditions which are wanting in the rich adobe of Mission San Jose, yet without losing its resistant qualities, which, on the whole, probably exceed those of the *Californica*. The latter represents among the vines what the plum stock does among stone fruits, while the *Rupestris* (and probably the *Aestivalis* varieties) are the parallels of the peach or almond stocks; and doubtless they are as little interchangeable as are the two orchard stocks.

As has been shown in a former bulletin (No. 24) the *Californica* appears in the uplands preferably on heavy, rich soils, although in the valleys it does well on a great variety of lands. In the red gravelly uplands of the Coast Range and foothills, it should probably be replaced by some of the *Aestivalis* stocks, such as Lenoir or Herbemont.

Rapidity of Development of the Several Resistant Vines.—That in our climate the *Californica* develops most rapidly of all, especially as to making a stock of grafting size, is hardly doubtful. The experiments made at the University from 1881 to the present time, as well as personal experience in my vineyard at Mission San Jose, fully corroborate the claim that the *Californica* is a stock of extraordinary vigor on favorable soils, and will bear very early grafting. It will be remembered that in the first experiments made with the grafting of seedlings at the University, in 1881, of seedlings one year old about 40 per cent were found stout enough for grafting, and were successfully grafted; a thing not even remotely possible with any other species of vine yet tested, and least of all perhaps with the *riparia*, whose seedlings are of exceedingly slow development. Thus, of a plantation of *riparia* seedlings located on exceedingly favorable soil on Mr. John T. Doyle's place at Cupertino, not one could have been grafted when two years old, and only a few were fairly graftable when four years old.

At my own vineyard at Mission San Jose, the stocks from one-year-old *Californica* seedlings planted in spring of 1884 were, without exception, large enough to be grafted in spring 1885, despite a very unfavorable season. They were not actually grafted, however, until March and April, 1886, when, notwithstanding the extraordinarily dry season preceding, the trunks ranged in thickness from a minimum of two-thirds of an inch to fully 1¼ inch, and sometimes more; so that two grafts could readily have been inserted in a large portion of them. Of the *Riparia* cuttings planted at the same time as the *Californica* seedlings, few exceeded one-half inch in thickness, and very many were too slender to be grafted with any prospect of success, especially in view of their large pith. Of the *Rupestris* cuttings planted at the same time, few reached the thickness of half an inch, and many appeared no thicker than when planted, three years before, except that they had at the top a short head, like that of an old short-pruned stock, but too short to be of any use in making the graft.

In this case, however, all the conditions were most favorable to the *Californica* stock, as observed on the wild vine on its own ground.

As to loss or gain of time in grafting, a loss of 10 per cent of the grafts made in the field must ordinarily, I think, be considered a very favorable result; it will more frequently amount to between 12 and 20 per cent, varying not only according to the skill of the grafters, but very largely depending upon the condition of the grafts used, and upon the weather following the operation; also, to a not inconsiderable degree, upon the nature of the soil. The influence of the latter becomes apparent from the fact that vine-grafting must be done either several inches below the surface of the ground, or, if done at or near the surface, the soil must afterward be piled up around the graft for protection against drying-out. In the case of an adobe soil, in which the water may remain near the surface for several days after a rain, the intrusion of muddy water into the cleft or cut, and a consequent weakness of the junction and even risk of failure to unite, may take place. Hence, as such soils in good tilth retain moisture very strongly, I incline to think that in them the grafting is best done within one or two inches of the surface, the piling-up of the earth around the graft being relied on to prevent drying. With the same view, my personal experience inclines me to favor late* rather than very early grafting, because then the free flow of sap from the stock keeps the graft in good heart.

I think the average experience will be found to be that there is a loss of one year, or thereabouts, when a vineyard is grafted instead of being allowed to bear directly from the cuttings; and that on the large scale the cases of gain in time will be very exceptional.

Propagation of the Resistant Stocks.—Of the above species the *riparia* is the one of which the cuttings can unhesitatingly be planted directly in the vineyard; the *Arizonica* is next; while the rest, including the *Rupestris*, should preferably be rooted in nursery. Probably it would also be best to graft them there.

From what I have seen of the growth and habits of *riparia* seedlings, I should not incline to their use in preference to cuttings, on account of their delicacy and extremely slow development. It is quite otherwise with the *Californica*, of which even very small seedlings grow very readily and rapidly, and are very tenacious of life under very adverse circumstances.

Considering the advantages to be gained by grafting on vigorous resistant stocks in regions menaced by the possible importation of the phylloxera, one season's delay (which I think should be looked for by those who graft) should not deter any one from taking this needful, and with proper care as to adaptation, ultimately profitable precaution. E. W. HILGARD.

Berkeley, Jan. 28, 1887.

* "Late" as regards the stage of development of the leaves, but not necessarily late in the season.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

The Legislature.

The Legislative mill moves slowly. More than half the time fixed by the law as the limit of the session under way has passed, and the net result is about 22 minor bills enacted in the Assembly and three or four in the Senate. After passing through the throes of electing a Senator, the junketing fever, we are now in the midst of what Tennyson would term the season of the "tonguesters" and the glory of parliamentary "babble." And all this going on at an expense to the people of this State of $5000 a day. As it takes some time for such a body of men, many of whom are callow and inexperienced, to get neatly fitted into the harness of business, we may expect the members to become more vigilant and attentive as bills begin to approach the second and third reading.

For a few days past the absorbing topic at Sacramento has been the proposition to divide Colusa county, and create a new county to be named "Glenn." The 717 petitioners contend that it is asking too much of the most of them to travel from 50 to 60 miles in order to transact a little business at the county seat. The bill has strong opponents as well as advocates, and the result will be watched with interest as a precedent, as there are several large counties in this State that many think could be governed more effectively were they divided.

The consideration of the forestry bills was made the order of the day in the Senate last Monday. The first, a concurrent resolution asking Congress to withdraw the government timber lands until a survey could be made for the purpose of ascertaining how far the devastation of the forests of this State affected the rainfall, winds, etc., was firmly opposed by the representatives from the lumber counties. The bill enlarging the powers of the State Board of Forestry and providing $30,000 for its expenses during the next two years was so badly mangled with amendments that its author would not know it. These two bills were made the special order for to-day. The bill to encourage tree-planting was treated more kindly. The 22d of February was fixed for Arbor Day, and $2000 were appropriated for this purpose.

The anti-debris question still agitates the minds of members in both the Senate and Assembly, and has caused some heated discussion and is likely to cause more. The Senate bill came up last week, and, after a short and sharp passage at arms between the valley and mountain men, was referred to the Committee on Mining Drainage and Debris. In the Assembly the Ohleyer bill was made the order of the day for Thursday of this week.

In regard to the irrigation problem the conviction seems to be gaining ground that it is best to move slowly; that no comprehensive and permanent scheme can be eliminated from the vague and conflicting notions entertained by the people and their representatives. That there is wise advice in the suggestion of the State Engineer when he says:

> The question is not in this State a mere quarrel between two influential contending cliques of enterprising men—as, unfortunately, it has been made to appear—but it is the same here as elsewhere in similar climates, a question of public moment, of the first importance, and which will not remain in quiet until deliberately and fully dealt with. In other countries, in order to secure such treatment, the subject has been relegated to special commissions. It would appear, from experience thus far, that, sooner or later, this action will be taken here, and it becomes my duty to say that the sooner it is done the better for the people and the State. Matters in this connection are becoming complicated and more difficult to deal with every year.

Had such an investigation been set on foot three or four years ago, this vexed question would now be near solution. The Senate Committee on Irrigation has resolved unanimously to report that the Langford bill, abolishing the office of State Engineer, do not pass.

It is believed that Senator Caminetti's bill to create a new agricultural district composed of Amador and Calaveras counties will no doubt pass the Senate. It is also believed that the bill to create a viticultural station somewhere on the mineral belt will become a law. The Senate bill relating to the repairing of roads and highways, and empowering Boards of Supervisors to pay for the same out of the General Fund when the road fund is exhausted, has passed to engrossment.

GRANGE MEETINGS AT SANTA ROSA.—The Santa Rosa *Democrat* speaks of the meeting of the Sonoma County Pomona Grange, held in that city on the 19th ult., as a very important one. The Bennett valley, Sebastopol and Santa Rosa Granges were well represented. Committees were appointed to make preparations for receiving the State Grange, and to arrange for the entertainment at the April meeting of the Pomona Grange. S. T. Coulter introduced a resolution, petitioning the Legislature to memorialize Congress to amend the Constitution, and provide for the election of U. S. Senators by the direct vote of the people, which was unanimously adopted. It was proposed that the Grange, at its next meeting, adopt the new badge recently adopted by the National Grange. At a meeting of the subordinate Grange, on the 22d, J. Roberts, E. A. Rogers and Chas. Bonner were commissioned to co-operate with the Pomona Grange in regard to the Citrus Fair, to be held in Santa Rosa. The committee arranged to hold a meeting in the City Council chambers which the farmers and business men generally of the county were invited to attend, for the purpose of discussing the feasibility of the enterprise, etc.; but we have not yet learned what was decided upon.

Resolutions of Respect.

EDITORS PRESS:—The following resolutions were adopted by Sacramento Grange, Jan. 22, 1887, in memory of Sister Delia Tibbetts, deceased:

WHEREAS, The Allwise Ruler of the Universe in His wise dispensation of Providence has seen fit, by the hand of death, to remove from our friendly circle beloved Sister Delia Tibbetts, we deem it fitting to bestow a tribute to her memory; therefore,

Resolved, That in the death of Sister Tibbetts, Sacramento Grange loses one of the dearest members, the community one of its choicest friends, to know her was to love her; and

Resolved, That the sincere sympathy of the members of Sacramento Grange be extended to her afflicted husband, Bro. Wm. Tibbetts, and to all members of the family.

Resolved, That the flowers each Patron dropped into her grave were the transfiguration of a tender thought, and though we laid her to rest in the lovely cemetery of Sacramento, we trust her gentle spirit has found that sweet peace and refuge of the "house not made with hands."

Resolved, That our united sympathy as a band of Patrons, expressed in these testimonials, be presented to the bereaved husband and aged parents of deceased, and that a copy of the same be sent to the California *Patron* and RURAL PRESS, for publication.

HATTIE P. GREER,
C. A. HULL,
GEO. T. RICH,
MARY W. L. AIKEN,
Committee.

Sacramento, Jan. 22, 1887.

Grange Elections.*

FRANKLIN GRANGE.—Installed Jan. 22: Wm. Johnston, M.; Lake Freeman, O.; Mrs. H. P. Flaxman, L.; W. A. Johnston, S.; P. B. Bradford, A. S.; Mrs. A. P. Freeman, C.; I. F. Freeman, T.; C. P. Freeman, S.c.; J. B. Bradford, G. K.; Mrs. W. A. Johnston, P.; Mrs. S. G. Bradford, F.; Mrs E. S. Johnston, Ceres; Mrs. Annie Bradford, L. A. S.; Miss Mattie Johnston, Organist.

WOODBRIDGE GRANGE. — Installed Jan. 5: Victor Jahant, M.; Wm. H. Tredway, O.; Ezra Fisk, L.; W. B. White, S.; John E. Thompson, A. S.; E. J. McIntosh, C.; G. H. Ashley, T.; Mrs. E. J. McIntosh, Sec.; Daniel Sheen, G. K.; Mrs. Wm. H. Tredway, Ceres; Mrs. E. G. Williams, P.; Mrs. Lizzie Boyce, F.; Mrs. John E. Thompson, L. A. S.

*Secretaries, or other officers, are invited to send us lists of officers elected, date of installations, and all other interesting matter for publication.

THE ORDER IN THE GRANITE STATE.—A correspondent of the Boston *Journal*, writing just before Christmas, says that some 90 New Hampshire towns have a Grange; during the past year 10 Granges have been organized, and its growth in public confidence and estimation has been marked. The early financial policy was a delusion and a snare, and has been dropped, save as of secondary importance. The social and educational advantages are the underlying principles, presenting opportunities to the members that are apparent. The meetings, aside from the degree work, are fully occupied by discussions on farm, garden, State, national and household questions, while readings, recitations, dialogues and music give the younger members a chance for exercise and improvement. It is one of the most valuable schools afforded to the farming community. The influence of the Grange on future farming in the State will be most marked. With a higher educational standard among the farmers, brighter and more inviting homes, more thrift and better husbandry are natural results; consequently the boys and girls will look upon the farmer's vocation with more respect and a higher degree of interest. It is a temperance organization and its lessons inculcate the principle by precept and example among the members. It can never become a political organization, but each member is enjoined to do all in his power to purify his individual party and see that only true and honest men are nominated for positions of honor or trust, or receive his support, and who will stand by the farmers' interests. The Order seems to be more vigorous and progressive in New England than in any other section of the country. It has no connection whatever with the Knights of Labor.

RECENT INSTALLATIONS.—Pleasant accounts appear in the *Patron* of installation festivities at Danville, where P. M., Chas. Wood acted as installing officer; at Franklin Grange, where the retiring Master, Lake Freeman, officiated; and at Enterprise, where the ceremonies were performed by W. S. M., Johnston, who traveled 25 miles to be present on the happy occasion.

CAPT. J. W. A. WRIGHT, First P. M. of Cal. State Grange, has been appointed president of Alabama Normal College, vice Dr. C. G. Smith, resigned. We consider Bro. Wright ably qualified for the place to which he has been chosen.

Grange Work and Progress.

[Prepared weekly by M. WHITEHEAD, National Lecturer.]

To succeed in any work, trade, profession or calling, we must first *know* it.

The best and most successful mechanic, farmer, business man, preacher, lawyer or physician is always the one that is the best trained or educated in that direction.

The best Patron is the one that *knows* the Grange, its purposes, its laws and its principles.

Granges whose members read little, think little and know little of the Order, finally have the label "dormant" attached to their names.

Patrons who are in *earnest*, who desire to live and grow and prosper, should make a study of the Order. Commence at your next meeting with the "Declaration of Purposes." Take it up section by section. Read it paragraph by paragraph, alternately, all around the room; commit a few lines of it to memory and recite it at each meeting until all know it thoroughly and can repeat it off-hand.

A resolution adopted by the National Grange reads: *Resolved*, That in view of a more practical advancement of the purposes of the Patrons of Husbandry, we recommend that the officers and members of the Subordinate Granges make its instructions and principles, as set forth in the Declaration of Purposes, a matter of special and careful study, to the end that we may understand and perform our whole duty, and thereby fulfill our obligations so as to build higher and better. An advance will then be made which is sure to hasten the "good time coming."

William, Duke of Normandy, with 60,000 well-organized and disciplined troops, was able to conquer millions of unorganized Britons. So capital in various forms, railroad kings, with a well-organized and disciplined force of 1000 or 2000, are able to rule and rob all the millions of unorganized farmers and other toilers. We must meet organization with organization, overthrow evil organizations with good ones. The organized farmers in the Grange have done more in the last few years for agriculture and our country than all the unorganized farmers for 50 years past.

"The Order of Patrons of Husbandry has become national in its character, and its influence has been felt in all parts of our country. Composed as it is of the most retired and unassuming element of American society, it has not sought and does not seek prominence and power, except so far as is for the best interest and highest good of its members. While its history for 20 years has not been a complete success and its members and friends have sometimes been disappointed in the results of their labors, it has accomplished so much for the American farmer, it has made its power so forcibly felt in State and National legislation and has won so enviable a reputation for the conservatism and dignity of its action upon all important questions, that none can deny it the foremost rank in all Orders which have for their object the protection and elevation of their members. Through a misconception of its aims and from various causes of a local character, the membership of the Order in many States has decreased, from what it was when seemingly in the full tide of prosperity; but its real strength in the country at large was never so formidable as at the present time."—*Alpha Messer, Vermont State Grange.*

"There is something knightly in the heart of every boy; something helpful and womanly in the heart of every girl," and these qualities should be developed. The sympathies of children are quickly aroused and can be rightly directed for their great benefit. Interest the little folks of the farm in the Grange. Have "children's meetings" from time to time, and work to make them attractive. Start them right and they will gladly enter our gates when 14 years of age, and take up the work their elders have been trying to do.

Stark Grange, of Dunbarton, N. H., held a novel meeting, when the member bringing the largest potato captured all the others; and the largest ear of corn carried off the palm also. This was followed by a corn crop discussion of ways and methods for best crops—which, with music, recitations and declamations, made a valuable meeting.

Part of the earnest work of the Worthy Master of the Ohio State Grange, in the opening of the new year, is the appointment of five special Deputies. Ohio is behind no State in the Union in active, progressive and telling labors in our grand cause.

More than 750 of the Patrons' National Reading Circles have been established within the past year, and in all parts of the United States. Many of the State Masters speak in the highest terms of this valuable work of our Order, and give well-deserved praise to Bro. R. H. Thomas, Worthy Secretary of the Pennsylvania State Grange, for originating and perfecting the plan.

New Hampshire reports another new Grange.

State Master J. H. Hale, of Connecticut, has organized another large Grange at Windsor.

Another new Pomona Grange is to be organized in Connecticut.

Ten more Granges reorganized in Nebraska within a few weeks. National Grange work is telling there.

Colorado is coming to the front again. State Master Levi Booth writes encouragingly. He organized a new Grange at Ni Wot lately which now numbers 60 members.

Deputy National Lecturer D. H. Thing will do some "official" work in Massachusetts and New Jersey.

"Hark to the clarion, the echoes awakening,
Calling the brown-handed children of toil;
Brightly the dawn of a new day is breaking,
Rouse from your lethargy, sons of the soil."

VISITORS FROM MAINE.—Bro. Daniel Field, of Auburn, Maine, who is visiting relatives in this city, called on us a few days since, inquiring after Grange interests in California. He comes with good recommendations from one of the most popular officers and working Patrons of the National Grange—Bro. Mortimer Whitehead, W. L. N. G.—as well as from Gov. Frederic Robie, Master of the Maine State Grange. Bro. Field has wisely brought his wife to our fair clime, and they purpose remaining in it till the return of milder weather at the East, meanwhile becoming personally acquainted with the farming and other progressive industries of this coast. We hope that they will exchange greetings at many of our California Granges. A cordial invitation has been extended to them to visit Temescal Grange Saturday afternoon, Feb. 19th.

Stockton Notes.

EDITORS PRESS:—The spirit of improvement is up and pushing. Basalt pavement is being extended up Main to Front street and is planned for Hunter street and Weber avenue—property-owners paying for half.

A county Board of Trade, with the mayor at its head, is organized and has called a grand mass meeting, February 5th, on Hunter square, with a brass band and Judge Patterson, ex-Congressman Budd and other good speakers to set forth the need of united action and the advantages Stockton and her great valley offer to immigration, either rich or poor, the necessity of cutting the large holdings into small farms and lots, so that intelligent labor may gladden the broad plains and enlarge the city with homes of permanence and taste, and to solicit Sacramento railroad men to run excursion trains here with the privilege to stop over to look about. W. L. Overhiser, Overseer of State Grange, is one of the directors.

The committee of public-spirited citizens, by selling life-memberships ($50 apiece) raised $11,000 to build a fair pavilion, expecting to get Washington square, but the City Council thought it should be kept for a city hall, and offered Independence square near the Central Pacific, which the subscribers deem too far out of the business center.

A new street-car company has organized and will fit up Good Water Grove (10 acres) with a fine hotel, artesian well, baths, etc., as a pleasure and health resort. People from the bay counties need this breezy sunshine to sweat off morbid matter, as we do coast air to tone up relaxed systems. This charming grove of oaks is firm and grassy, with pure, cold water, and two and a half miles from the water front, and equally distant from the Central Pacific.

Several medicinal wells are flowing in and near the city. The Salmon well helps many ailments, lights the house and cooks the food without dirt of wood-box or coal-scuttle or lamp cleaning. It is 1200 feet deep and waters a vast tract.

The Standard Gas & Fuel Co. intend to bore a series of wells and confine the gas by connecting pipes to light cities. They have two started 1300 feet apart near the French Camp toll road. One emits gas enough, they say, to light the city. They intend to bore to dry or fuel gas. Another company is boring near Mormon Channel and the paper mills, with a good flow of water and burning gas.

Grain north and east of the city looks well, though we have had only 2 43 inches of rain, but believe it will yet come. MRS. W. D. A.

Stockton, Jan. 31, 1887.

Passed Away.

The death of Mrs. Georgiana Bruce Kirby last Tuesday at the family residence in Santa Cruz ends a remarkable career. She was born in Bristol, England, 1818, and in early life came to Boston, where she was a member of the celebrated Brook Farm community in Massachusetts, and prominently connected with the early anti slavery movement. At Brook Farm she became acquainted with many men and women who afterward became high on the roll of literary fame. Among these were Margaret Fuller, George Ripley, Hawthorne, Emerson, George William Curtis and Charles A. Dana. She was also an intimate friend of Horace Greeley, who loaned her money to come to California. Mrs. Kirby was a woman who took a deep and earnest interest in all questions that she believed would benefit humanity. Her character was ever above reproach, her mind keenly analytical. She had a rare faculty of divining the thoughts of others and coming warmly into sympathy with those in sorrow and trouble. The leisure hours of her life were largely devoted to literary work, and the results are "Brook Farm Papers," "Years of Experience," "Transmission," besides scores of papers, literary and historical, contributed to newspapers and magazines. Her book, "Years of Experience," was issued only last month by the Putnams, and is a racy and admirable sketch of her early life, closing with her departure for California.

SHEEP VS. CODLIN MOTH.—Will McClellan, of Belmont, says the Redwood *Times and Gazette*, found that pasturing sheep in his orchard during the fruit season did much to rid his trees of that dreaded pest the codlin moth. He says that his plan was to shake the trees every day. Most of the infected fruit fell to the ground and was greedily eaten by the sheep, which, he says, do quicker and more effective work than hogs do.

VALENTINES.—L. Prang & Co.'s valentines, satin art prints and art novelties, for the season 1887, surpass all other excellencies.

In this line, Prang leads the world. His productions are numerous, varied and beautiful in design. All can find some rare and striking novelties to fancy.

Our American artists excel in the bright and pleasing features of these publications. Examine Prang's in your efforts to select art prints which will ever remain delightful to the eye and pleasing to the most cultivated taste.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

AGRICULTURE ACTIVE.—Haywards *Journal*, Jan. 29: A ride over the valley this week shows the farmers everywhere busy plowing and seeding. Every available piece of land in this section is being sliced up, and the acreage planted will be much greater than any previous year. The hill chaps are also rushing the work so as to have their ground seeded when the next rain arrives. The land generally works up fine, and there appears to be plenty of moisture in the ground.

OLIVE TREES THRIVING.—Livermore *Herald:* The young olive trees set out along many of our vineyards, two or three years ago, are beginning to make a decided growth. The tree grows very slowly the first and second years, but after that it stretches up and out almost as rapidly as an apricot. It makes a very beautiful evergreen tree, and we believe will prove a decided success for shade purposes on our streets.

Butte.

THE "BOOM" AT GRIDLEY.—*Herald:* A. W. Campbell is preparing to set out from 800 to 1000 orange trees; D. M. Mack has made preparations for planting 600 or 800; C. J. Welsh has secured several hundred yearling seedlings, and will set them out. We hear of many others, including prominent ranchers, who are contemplating like improvements.

WHEAT PROMISING.—Oroville *Register*, Jan. 27: The prospects for fine crops of grain were never better at this season of the year. Grain was put in early; the ground was in excellent condition, and there has been plenty of rain to insure a splendid growth. At Nelson, Biggs, Gridley, Moore Station and other parts of the county, farmers report first-rate prospects of good crops, while the area planted is the largest ever known in the history of Butte.

Colusa.

HANDSOME HEADS.—A correspondent of the *People's Cause*, writing from Williams, recently, inclosed some fine samples of wheat, oat and barley heads, measuring from two to three inches in length, grown in the foothills of Colusa county, near the Clyde mine, at an altitude of 1000 feet or more, where they were regarded as quite a curiosity.

Contra Costa.

MUSCATS IN JANUARY.—Martinez *Gazette*, Jan. 22: Mr. H. P. Hardy this week picked several clusters of Muscat grapes from his vines. The Muscat is not a late grape, and the fact that these were in good condition goes to show how admirable is the climate of Contra Costa for grapes and fruits. A box of these Muscats, beautifully garnished with mignonette, whose delicate blossoms were untouched by frost, was presented to the *Gazette* on Wednesday by Mr. Hardy. Nearly every berry was firm and sweet as if plucked in October, and their color was rich and attractive.

El Dorado.

HORTICULTURAL PROSPECTS.—*Record-Union:* A Placerville correspondent says that El Dorado county never had so flattering an outlook as at present. The orchardists and vineyardists are putting out a large acreage, the former planting Bartlett pears and French prunes, the latter the choicest varieties of wine, table and raisin grapes. Land throughout the county has appreciated in value from 50 to 100 per cent, and in some more favored localities is valued at five times what it was two years ago. At this time almond trees are in full bloom, and the orange crop at its best. The farmer here has learned in the past few years that the orange can be grown as successfully in our foothills as can the apple. The only requisite is to get the groves located, not on the lowest ground, nor yet on the hilltops, but between the extreme, and sheltered from the north winds, which, by the way, are not prevalent in this section.

Fresno.

HOPS.—*Expositor*, Jan. 26: Kingsburg has shipped 236,040 pounds of hops this season. They were grown on the Laguna de Tache grant, and are said to have been of excellent quality.

COYOTE VERSUS JACKRABBIT.—Our colonists are seriously pestered with jackrabbits, which raid their orchards and vineyards and gnaw the bark off their trees and vines. The coyotes are enemies to the jackrabbits, killing them off and keeping their numbers down, and it is now suggested that it would be wise for the supervisors to take off the bounty on coyote scalps and place one on the much more destructive nuisance, the jackrabbit.

Kern.

THE SEASON.—Bakersfield *Californian*, Jan. 29: It is now generally conceded that we are to have a dry season. It opened here favorably. We had a fine rain at the right time; but the promise has not been fulfilled. It has been dry ever since and unusually cold. Nevertheless there is reason to believe there will be plenty of water in the river. It is possible, also, that we may have late rains, as it is not unusual here. Stockmen who depend on the open ranges will have a hard time of it. The delta of Kern river and the artesian belt will be safe, but other parts of the county will suffer.

Los Angeles.

BIG TOMATOES.—W. S. Benedict lately presented the Los Angeles *Times* with a box of tomatoes grown eight miles from the city on a Cahuenga foothill ranch. There were 62 tomatoes in the box, and their net weight was 29 pounds. What locality can beat this in January?

SOLD ON THE TREES.—Anaheim *Gazette:* Leonard Parker has sold his crop of oranges on his five-acre grove for $2000, the purchaser to pick and pack the fruit. There is some profit in growing oranges at that rate.

RACING ORANGE-TRAINS.—Los Angeles telegram, Jan. 29: The Atchison, Topeka & Santa Fe Co. and the Southern Pacific Co. both sent out trainloads of oranges to-day, the first shipped East this season. There is rivalry between the two systems as to which train shall reach its destination first, and fast freight time will be made. The S. F. used the Tiffany refrigerator cars, and the S. P. its own fruit cars. Both trains were gayly decorated with flags and inscriptions.

Mendocino.

POINT ARENA JOTTINGS.—Cor. Ukiah *Press*, Jan. 17: The roads are fine. The grass is good, and cattle are fat. Sheep are mutton when they are fat, and that is now. The farmers are improving the opportunities presented by the fine weather, and are well along with their seeding. The dairymen are saying naughty words because butter came down in price so soon in the season.

CAMPAIGN AGAINST COYOTES.—Sherwood Cor. *Dispatch and Democrat:* W. H. Snell and John Capell have packed up their bed and bedding, and moved into the coyote region, and will make a business of trapping the destructive beasts. They say if they can't make money at $15 a scalp they will soon know the reason why. Good for them. There is room for 20 more in Long Valley coyote district, where the wool-growers pay $30 for every coyote killed, which, added to the $15 offered by the county, makes the hunting of the coyote quite an interesting sport. The sheepmen mean business, and their business interests are at stake.

Nevada.

AN ARBOR DAY.—Grass Valley *Tidings:* The Y. W. C. T. U. of Grass Valley and Nevada City have resolved to observe Washington's birthday, the 22d, as Arbor Day and to plant trees along the roadway, four miles in length, between the two towns. The Grass Valley organization is to take charge of the road between Glenbrook Park and this place, and the Nevada City organization of that portion between Glenbrook and its town. The Grass Valleyans, to secure the necessary funds, have been canvassing the town, meeting with fair success. One tree, or its equivalent, 25 cents, is solicited from each individual or family. Of course, no limit is placed upon the amount or number of suitable trees each may give. In this manner the trees are to be secured. Then funds are needed to pay for the digging of the holes and planting the trees. A splendid musical program, in which our best talent will take part, has been arranged and will probably be presented to the public at Van's opera-house, the proceeds to be devoted to the purpose named above.

Sacramento.

PEACH BLOSSOMS.—There was brought to the *Bee* office, Jan. 24, a branch of a peach tree, from Chas. Zeinwalt's place, one mile from Folsom, covered with new leaves, buds and blossoms. The tree was a Pan Wan Chan—a late variety.

San Benito.

OLIVES.—*Free Lance*, Jan. 28: W. I. Reed brought to this office on Monday some specimens of the olive as fine as can be seen in California. The berries are of the Mission variety, which yield an oil of the finest grade. Many of the specimens are of the size of walnuts. Mr. Reed has but one tree of this fruit, and this was planted eight years ago at his ranch in the Santa Ana valley, about five miles from Hollister. It was planted for shade and as an experiment. The tree began to bear when four years old, is now about 14 feet in hight, and bears prolifically. A grove of these 25 acres in extent would prove more profitable than a ranch of 160 acres devoted merely to wheat.

San Diego.

OLIVE OIL WORKS.—*Union*, Jan. 22: Warren Kimball says that notwithstanding the heavily increased demand for pickled olives, there is no longer any money in the business, and he will hereafter manufacture the entire crop of his large olive grove into oil, for which purpose he is now constructing a mill, which will be not only the largest in the county, but the finest in the State.

National City *Record*, Jan. 27: The machinery for Frank Kimball's large, new olive-oil works has arrived, and is being placed. The stones are now being prepared for grinding the olives, and in a few days Mr. K. expects to be manufacturing a pure quality of oil in large quantities.

San Mateo.

CABBAGE FOR CHICAGO.—Redwood City telegram, Jan. 29: A carload of cabbages was sent to Chicago to-day from the vegetable garden of G. B. Solari. Although cabbages have been shipped from the county to Eastern points before, this is the first shipment from this town.

Solano.

EDITORS PRESS:—Vanden is a new station five miles east of Suisun, and is spoken of as a possible termination or junction of the Oregon and the Cal. P. R. R. when the former is completed. It is proposed to make a connection at Dunnigans with Winters and Vacaville road to this place, doing away with the angle to Elmira. Our land is embraced in the Vacaville fruit-belt, and is being bought up largely for fruit and vegetables. Plowing and seeding are still going on, the farmers having faith in abundance of rain yet for a good crop. We require but little rain, as the bay winds come laden with moisture from the ocean. There have been but two half days' interruption to plowing and seeding since the season opened. There is quite a stir in land here, owing to the prospects of a town soon springing up. F. O. Staples is selling 1100 acres in small lots, to suit buyers.—N. C. BROOKS, *Vanden, Feb. 1st.*

MORTALITY AMONG HORSES.—Vallejo *Chronicle*, Jan. 28: On Christmas day J. and C. Deming lost a mare valued at $300 from a disease that puzzled the horse doctors. Since then two more of their horses, animals of Norman blood, have died from the same cause. This makes seven they have lost in the past year, all but two dying of the disease. The first symptom was a cold. This was followed by a swelling in the neck, and then choking. Dr. Rose made an examination of one of the horses and found that the trouble involved the lungs.

Santa Clara.

A GOOD CATTLE COUNTRY.—San Jose *Times*, Jan. 28: Col. Younger said yesterday: Here we have green grasses all the year round. Every rancher does not have it, because every one does not make an effort to have it, but on my place you can find green pasturage every month in the year. To do this it will require a little irrigation, but that is no difficult matter with the vast amount of water in the county, and with artesian water so readily attained. There is no better alfalfa land in the world than we have right here in this valley; and from two to two and one-half tons can be raised to an acre. Our foothills, which form no inconsiderable portion of the county, are excellent pasture land. Another great advantage which we have over the other sections of the West, which pride themselves on being cattle countries, is our mild, open winter, as compared with any section outside of California. The capabilities of the county as a cattle-raising section are wonderful.

Sonoma.

CITRUS SAMPLES.—*Democrat*, Jan. 25: The sprig of oranges in our show window is from the farm of J. W. Calhoun, in Russian River township. It was taken from a seedling tree, and the oranges compare favorably with the best of the coast. Few people have any conception of the amount of citrus fruit raised in this county, and we shall be glad to see the Pomona Grange push to a successful ending its contemplated special exhibit of citrus fruits.

Tehama.

ORCHARD ENTERPRISE.—Red Bluff *Sentinel*, Jan. 29: Herbert Kraft, banker and farmer, will plant 250 acres to fruit trees, orange and peach, and raisin-grape cuttings or rooted vines on Hazleton ranch, seven miles north of Red Bluff, on the east side of the river. He will also sow 150 acres of the same tract to alfalfa. Part of the land is rich alluvial bottom, covered with undergrowth and trees, which will be cleared off, the ground plowed and the trees and vines planted, and the alfalfa sown within the next six weeks. The water of Payne's creek will be utilized to irrigate the orchard, vineyard and alfalfa fields, if it is needed.

Tulare.

VIGOROUS VINES AND TREES.—*Delta*, Jan. 27: On Monday G. A. Botsford's office was decorated with some wonderful specimens of vine and tree growth, presented by C. Blowers, residing near Grangeville. These were trees one year old from the dormant bud of the French prune, Bartlett pear and peach, an inch or more in diameter, each 16½ ft. tall, well limbed and of stocky growth. There were three grapevines of one year's growth, lopped away in this season's pruning. They were Black Prince, Gordo Blanco, Muscat and Seedless Sultana. The former vine was an inch in diameter and just 33 ft. long; the others were somewhat smaller and shorter, but of equally vigorous growth, considering that they are less prone to wood-making. These specimens of the remarkable fertility of Tulare county soil will be sent to the Los Angeles office of the Tulare County Immigration Society.

HORTICULTURAL COMMISSIONERS.—Visalia *Times*, Jan. 27: At the January meeting of the Board of Supervisors, N. W. Motheral, I. H. Thomas, and S. D. Ayers were appointed Horticultural Commissioners for the county of Tulare. The gentlemen met on Saturday and organized by electing N. W. Motheral President, and I. H. Thomas, Secretary. They agreed to proceed immediately to business, and those having diseased trees or vines in their vicinity are requested to make the fact known to the member of the board living nearest, when the best known remedy, and the manner of applying it, will be furnished to those desiring it. When the commission gets in good working order, monthly or quarterly bulletins will be published.

Ventura.

HUENEME NOTES.—*Ventura Republican*, Jan. 29: Business is not quite as active there as it has been. Of the 485,000 sacks of grain received this year at that port, there are only about 80,000 left in the warehouse. They have a capacity of 350,000 sacks and with only 80,000 left look quite empty. The crop received this year exceeds by at least 100,000 sacks that of any previous year. Hueneme is rapidly becoming the greatest grain depot on this coast outside of S. F. Farmers in many places are still turning up damp soil, and there are no present indications of suffering from drouth. Fortunately grain was not sown early and is only beginning to put forth.

Yolo.

DAVISVILLE ITEMS.—Cor. *Mail*, Jan. 27: The season so far has proved excellent for the vineyardists; their pruning and winter plowing is completed, and with favorable rains and spring cultivating, they anticipate a profitable yield.... The hog disease is still ravaging. Nearly all the farmers between here and Fremont have lost most of their herd.

HOPEFUL.—*Democrat*, Jan. 27: While we have not up to this time had the usual amount of rain, there is plenty of time yet for an abundance, and all will agree that late rains are the most profitable. The summer-fallow grain looks well, a large amount of land has already been plowed, and all kinds of stock never looked better. There is a large surplus of farm produce remaining.

Sonoma County Notes.

EDITORS PRESS:—During the past fortnight there has been one good shower of rain. Grains and grasses are doing well. Up to date there has been six inches of rain for the season. While this is not up to our usual rainfall, it has answered a good purpose. If we get as much more during the spring (and there is not much doubt of it) Sonoma county will produce a big crop. Thus far, the winter of '87 has not been a promising one for California, and yet Sonoma county never offered so much apparent reward for the farmer at this season of the year. Stock-raisers, fruit-growers, vineyardists, and grain-growers all anticipate a full crop or yield, each in his own line, and the promise is for a paying price. While we much regret the failure that seems certain for many portions of the State, yet their loss will be our gain, and if the good people of the dry sections will but come to our Egypt, they will find plenty of corn, fruit and welcome.

There is much talk at Santa Rosa of a citrus fair. The proper committees have been appointed, the various varieties of citrus fruits are in the county, and will be forthcoming if the committee conclude to hold the fair. A great many people think it rather too late, as many of our citrus fruit-growers are also owners of vineyards, and the busy time in vineyard work is now at hand. For that reason, it is possible the fair may be abandoned for this year; but if so, a citrus fair will surely be held at Santa Rosa next year. Don't forget that fact!

Although actual work has not been begun on the new railroad to Benicia, the people in this vicinity seem to think there is no doubt about the building of the road. Surely, no better "plant" for a paying investment can be found in this State.

Forty-eight miles of road (over a fertile section, without a tunnel on the road, but three bridges of any magnitude, and not one of them expensive) will give direct communication with the transcontinental system. Who says this is not a good field for capital? Just think of the thousands of tons of fruit, grain, hops, wool, wine, and coal, and the millions of feet of lumber, cords of wood, carloads of tanbark and railroad ties this new road would carry, to say nothing of a passenger traffic which would inevitably follow the construction of the Benicia & Sonoma railroad, and then undertake to say it would not be a paying road! The road will soon be built and operated, because it will pay to do so, and money makes the iron horse go.

Sonoma county has built a fine new courthouse, and is now building a splendid county hospital. This latter building is being erected on the county farm, about two miles north of Santa Rosa.

The new readers, compiled by the State Board of Education for use in the public schools, are now ready for distribution. We have not yet seen these new readers, but will venture that no good can come to the public schools by these continual changes in text-books.

The younger members of Santa Rosa Grange purpose giving a social at the Grange hall on the evening of the second Monday in February. Just what will be done, who will do it, or how many will be in attendance, is not made public. It is whispered about that oysters and supper will be served and no one will be admitted who is not ticketed. We await further developments.

Santa Rosa is growing very fast. Fine new residences and substantial brick blocks are to be seen on every street. Another new school building is to be erected this summer.

Several of the principal streets are being paved with basalt blocks.

The woolen mill which has been shut down for some weeks starts up soon. OCCASIONAL.

Santa Rosa, Feb. 1, 1887.

THE OAKLAND EVENING TRIBUNE has issued a most elaborate illustrated edition, showing up the resources and advantages of Oakland and Alameda. Fifty thousand copies have been sent abroad, which must be effective of great good to our beautiful neighbors over the bay.

STRING BEANS.—A sack of string beans, "the first of the season," received Jan. 26th by D. Biagi & Co., S. F., from J. Miller, Los Angeles, sold at 50 cents per pound.



To the Lark.

[Written for the PACIFIC RURAL PRESS.]

Sing now, sweet bird, sing loud and long,
How welcome is thy cheerful song;
Our glad hearts rise with thy sweet notes
As on the air thy music floats.

All Nature now lifts up her heart
And joins with thee, defying Art,
Spreading the foliage on her trees,
Throwing her perfumes to the breeze.

For the gentle rain has come again,
We feel our prayers were not in vain;
Our hearts are cheered, our faith made strong,
We fain would join thee in thy song.

The flowers blooming on the hill,
The gentle murmuring of the rill,
The flock, the herd, the bee and bird
Proclaim to us our prayer is heard.

The promise now of harvest fair
Will teach us never to despair,
But always trust the Higher Power,
Who sends the warm, life-giving shower.

So sing, sweet bird, for we rejoice
To hear thy ever-welcome voice;
It gives us courage in despair
To bide the answer to our prayer.

S. F., Cal., Jan. 22, 1887. NOTUS.

The Senator's Daughter.

CHAPTER V.

[Written for the RURAL PRESS by SARAH CAMPBELL SANFORD.]

I hurried along, not knowing, not caring, where I went, so preoccupied was I with my struggle with myself. At last I took cognizance of my whereabouts and found myself near the cemetery—"Maple Grove." I hastened my footsteps and soon was sitting on mother's grave. A few tears fell, but I thought of her asking me to consecrate my life to the work of saving father, and did it end there? Was not the promise to do what I could in any way to assist in the overthrow of the traffic? Was my running off seeking my own amusement fulfilling that promise? No! How would I feel if father took up his old habits again? But the tempter whispered: "He won't. He has perfect mastery over himself now, and why must you forever repress yourself? Why shouldn't you enjoy life as you go along?" Just as this idea seemed to be in the ascendant in my mind, the thought came: "What are you, that you should have so much in life? You have a pleasant home, plenty to eat, to drink and to wear; you have leisure to enjoy yourself; you have love and friends surrounding you. Just think of the many hundreds of young girls that have none of these things. What have you done, that your lot should be so much brighter than theirs?" I answered my thoughts by saying: "Done? Why, I haven't done anything. I'm a good for-nothing, selfish creature to repine one moment. I'll go home this minute, and drink tea with father—he always misses me if I am away." [Alvar had resumed his studies at a distant college, and father and I were all alone.] When I entered the dining-room he looked dismal enough, sitting there munching his dry toast all by himself. He brightened up as I came in, and we fell into a pleasant chat. We attended a concert that evening, and when I got home I was too tired to think about my disappointment.

The next morning I shed some more tears, as I answered Mrs. Stanhope's letter in the negative. But I never mentioned the matter to father, and if little fits of despondency would come over me occasionally, he attributed it to the early spring days, which were unusually sultry, and I was quite satisfied to have him think I was suffering from "spring fever."

So the weeks wore on, and the summer was over, and I never once regretted my decision.

In the early fall, one of the United States Senators from our State died, and the Governor appointed father to fill the vacancy. So instead of Rome I was to see Washington. Father said I must do a great deal of shopping and make myself a stylish young lady, for we would see a great deal of society. The coveted traveling dress was mine, after all, and many more pretty ones. Father even went shopping with me, and was very particular about the set and finish of the gowns. I told him it looked as if I was of more importance than the senator himself, and he said: "Oh! a man doesn't count for much in Washington unless he has a well-dressed woman in his household."

We found very pleasant quarters in a private family, thereby securing many of the comforts of home life, with none of its cares. I had nothing to do but enjoy myself in the beautiful city. I always accompanied father to the Capitol, and spent a good deal of time in the gallery, where I could look down and exchange smiles with him now and then.

One afternoon, wishing to see our wash-woman in regard to her work, I sought her in one of the poorer quarters of the city. While passing a large lodging-house, with business places on the ground floor, I caught the sound of children's voices singing. I looked up and down, and at last found a window bearing these words: "The W. C. T. U. Sewing-school." I rang a bell, asked admittance, and was shown into a bright, pretty room, filled with girls and boys from 5 to 12 years of age. There were pictures and mottoes on the walls, easy seats for the children, and a parlor organ over which a young girl presided. A blackboard occupied nearly one side of the room, which was covered with different pieces of paper pinned on. A pile of juvenile papers fresh from the press lay on the table, and beside them stood a vase filled with flowers. In one window was a stand containing house plants, and trailing vines ran over the window and around the room. Everything was bright and cozy. Mrs. May, the lady in charge, welcomed me with a sweet smile as a younger woman found me a seat.

After singing a number of songs, Mrs. May began to tell the children a story, and as she proceeded in her narrative she would uncover bits of the blackboard disclosing a crayon drawing, illustrating her story.



CURIOSITY.

There were one or two other women present, and a man with a red face and soiled, ill-fitting garments. He shuffled his feet and seemed, not to know what to do with his hands, when one looked at him; but when the children sang he forgot himself entirely, and, leaning forward with moist eyes, watched their animated faces.

After the short object-lesson the work was brought out and the ladies were kept busy threading needles, arranging work, etc. There were thimbles and work of some kind for all—boys as well as girls. I laid aside my hat, took off my gloves, and volunteered to assist. After an hour's work, they sang again, then marched out in good order. In the ante-room many left their clean gingham aprons and passed into the street with worn and dirty clothes; but their hands and faces were clean and hair brushed smoothly. After the children's departure the ladies came to me to make me welcome. Then I learned that the mystic letters on the window stood for "Woman's Christian Temperance Union," and that the building was owned by a very rich man who gave them the room and furnishings free, for any use for the benefit of the children. This sewing-school met twice a week.

In the same building a free kindergarten was held daily. The members of the W. C. T. U. of Washington would alternate with each other in attendance. Mrs. May, the regular teacher, said she had great trouble in getting her drawing done; and they also needed more help to wash the children. The W. C. T. U. bought the cloth and cut it into garments; they also finished them if the older girls did not. Then these clothes were given to the child who worked longest on them. The kind gentleman who did so much for them kept a standing offer of a handsome prize for the boy or girl who would abstain a month from drinking beer.

"Drinking!" I said; "it isn't possible those little things drink?"

"Yes," answered Mrs. May; "when we first opened here there was but one child in the school who did not drink more or less."

After a little further conversation I went away, with an urgent invitation to come again. I did my errand with Dinah as quickly as possible and hastened home.

After reaching my room I fell into one of my reveries, as father says. I knew there was an opportunity to help in the great work that mother prophesied; but I shrank from washing those children. And they needed help in just that place. Then I could draw; I quite excelled at school in crayon work. Oh, yes; I certainly could do Mrs. May's drawing! But to go into that part of the town, where unpleasant sights and sounds would greet me! Besides, I hadn't seen half the pictures and statues yet. And just at that hour I liked to drive in the park with some ladies who called for me quite often.

"Oh dear! I'm always poking in somewhere that I shouldn't! Now I can't enjoy myself, thinking of that work waiting for me. If I had just passed by on the other side I should never have known anything about it." And I proceeded to dress for dinner in no amiable frame of mind.

That evening I went with father to the Senate Chamber and listened to a fine speech. But amid the bright lights, the elegant costumes of the ladies in the gallery, and the august body of gentlemen on the floor beneath, crept in thoughts of those poor, dirty children. Who would do this work if not I? who had more time? and what would become of these street waifs if somebody didn't do something? Wasn't *I* somebody? And wasn't it *my* duty, if it was anybody's, to lend a hand? Who knows? perhaps one or more of those children would remember something I would say or do, and grow up better for having known me. I once read that every one should so live that the world (or the little spot we live and move and have our being in) should be better for our having lived. Now here was an opportunity for me to plant a few seeds, and I hesitated.

It ended by my putting in an appearance the next day, armed with a big apron to protect my dress while I washed and brushed the children. I followed up the resolution and rarely missed an hour in the sewing-school. I would remain after the departure of the children and draw the pictures for the next meeting. I never knew any positive result of just my individual labor, but I cannot estimate the good it did me. The soft clasp of the little arms about my neck, and the dewy kisses on my cheek, made my heart beat lighter all day. Then the intercourse with those noble, gifted souls who sacrificed their time and society's claims to lay solid foundation for the coming generation; the sweet, gracious women who were reaching out in so many ways to save the youth of the land. Oh yes, I grew and expanded under their influence, Then how I enjoyed the pictures and drives afterward! It enhanced my pleasure beyond anything I had ever known.

Jessie wrote quite often of their doings. They had changed their plan a little, and were wintering in the south of France on account of Mrs. Stanhope's health.

A letter came to me from Mentone while I was dressing for my first dinner-party—a momentous affair to me. What to wear, and how to wear it, was always a problem. I was large, above the usual size of women, and the light colors and fabrics suitable to my age made me appear larger than I really was. Then I had a mass of red hair to tone down. Yes, red hair! Some of my friends tried to call it auburn, and a Mrs. Cecil, an artist whom I met in Washington, said my hair was the shade that Titian loved. I wished he had mine! I thought I could well spare it. It was long, heavy and abundant, requiring a great deal of care.

Mrs. Cecil superintended my toilet that evening. She said the trouble with ladies who had red hair was, they rarely knew what colors to wear to harmonize with it. Blue should never be worn, nor blue-white, nor pale green, bright reds, pinks, nor blue-purple or lavender. But all the dark greens, grays, black, maroon, amber, amethyst and brown, could be effectively worn. Of course, the eyes should be taken into consideration. My eyes were brown; so she chose for me an olive foulard silk, cut square in the neck, and the sleeves were closed to the elbow and then fell in a sort of wing-like shape. ("Angel wings," the style was called.) They were lined with cream-colored satin.

Father gave me a beautiful set of pearls—my first jewels—necklace, bracelets and brooch; no ear-rings. My ears had never been marred by the probe. (What a remnant of barbarism much of our jewelry is!)

Mrs. Cecil fastened a bunch of tea roses at my belt, handed me a creamy-white fan, and took me downstairs to father, who was waiting.

"Why, your dress is a poem," said he.

"And what am I?"

"You are your papa's own girl, with a healthy form and an honest, frank face—just as I want you." He bowed low and kissed my hand in gallantry.

"Save all that for public occasions, papa dear; but give me a good hug now, and promise me you'll keep your eye on me, and not let me break all the rules of etiquette. An evening party is bad enough, but a dinner-party, where we sit two or three hours at table—O papa! the very thoughts make me tremble."

Father kissed me and said: "You will probably find it much pleasanter than you think. You have too much sense to attempt any style of conversation with which you are not familiar. Just appear what you are, a sensible young girl who has seen very little of the world. Don't think of yourself at all. Fall into some pleasant talk with your neighbor at table, and the time will pass all too soon."

"But, father, what shall I do if there is wine on the table?"

"Oh! that is troubling my mentor, is it? Well, Madge, if you have taken a vow, don't ever let society interfere with it. The world will always think more of you for standing by your colors; and that is what you and I are going to do to-night, I hope. If it is hard for you, my daughter, what is it for me, when the sight and smell of it set the old appetite crying out? It is hard to have woman set this temptation before us; but perhaps if you and other girls frown upon the custom long enough, it will be ruled out."

Just then the carriage was announced, and, throwing my wrap about me, father handed me to the carriage as courteously as if I had been a duchess.

It was as he had prophesied. I received such a cordial greeting from Senator M—— and his lovely wife that I felt more at my ease.

It fell to my lot to be taken charge of by a young newspaper correspondent, a Mr. Somerville. He was a fine talker, and I became so interested in his description of a trip he had recently made that I forgot all about my timidity. I suppose he read my face as an open book, for he requested the waiter to remove both his wineglass and mine, and called for lemonade to be substituted. I must have given him a very grateful look, as he said, in a low voice: "Are you a teetotaler, too?"

Before I could answer, his vis-a-vis addressed him:

"Well, now, Somerville, is it possible you still hang to those old puritanical notions of yours?"

"I'm still hanging, Doctor, as you see"—

glancing at his glass; "and to-night fate was kind enough to give me company."

I felt the blood mount to my face at the others' scrutiny; but it was a proud, happy blush, not one of shame.

Father was seated at the other end of the table, but I could see his glass still stood untouched. There was some merry jesting in his vicinity. He was always full of wit. I could not help wishing he would send his glass away too; but when a lady called attention to his full glass, he announced his belief that man was not a drinking animal. That raised a general discussion, and some very absurd arguments were used.

Dr. Anwell brought his battery to bear upon my companion again by saying: "Here is Somerville—he refuses wine on all occasions; but he seems to think he needs something to drink, as his glass would indicate."

"What did you do while tramping through Europe when you wrote up those out-of-the-way countries so delightfully?" queried a Mrs. Southard.

"I drank lemonade when I could get it, and water at other times."

"O Mr. Somerville! I came across your description of Mentone the other day, and I want you to tell me more about that delightful place. Why is it we didn't visit the Riviera country while on the continent?" turning to her husband to answer her question.

Mrs. Southard's attention was called to something else, and Mr. Somerville and I were left to ourselves again.

I caught my breath at the mention of Mentone. He noticed it and asked me what I knew of the place. I answered:

"I have just received a letter from a friend who is stopping there this winter. She thinks it a beautiful spot. Would you mind telling me about it?"

"I can tell you very little about the place; but I will relate a pretty little fable if you like. Have you outgrown your taste for fairy stories?"

"No indeed. I hope I never shall."

"I hope so too," answered he; "I think the good old-fashioned fairy tales are much better for young minds than the sensational novel so much in vogue. Well, this little tradition was told me by a dark-eyed flageolet-player who picked up a very precarious living. I rested an hour or more with him in an olive orchard, during the heat of a summer day; and he enlightened me considerably in regard to the myths of the region."

"Oh, how nice!" I murmured.

He laughed a little, and began: "Once upon a time, Adam and Eve, as I suppose you know, were banished from Paradise. Poor sobbing Eve put up her hand, just before she passed through the gate, and plucked a lemon. They two then wandered through the world together, far and wide; and at last, following the shores of the Mediterranean, came to Mentone. Here the sea was so blue, the sunshine so bright, and the sky so cloudless, Eve planted her treasured fruit. 'Go, little seed,' she said, 'grow, prosper, make another Eden of this enchanting spot; so that those who come after may know something at least of the tastes and perfumes of Paradise.'"

A little pause fell between us, when he said: "Isn't that a pretty story? But if you could have lain by the olive tree and watched the sunlight flickering through the somber leaves and looked down the dim cathedral aisles of the orchard, you would have appreciated better the soft musical tones of my barefooted boy."

"Yes," I answered; "but why did she take a lemon?"

"Well, you see she had eaten enough of the ill-fated apple. I hardly think she ever touched an apple again in her whole life—I know I wouldn't if it had brought such disaster to me; and you know lemons are very beneficial to one's health when indisposed, and if ever a poor mortal had good cause for indisposition, Mother Eve was she. But to speak reasonably, I suppose the tradition arose from the large number of lemons raised there. I believe the annual yield is about 30 millions. Doesn't it set your teeth on edge to think of it? They are very fine lemons, I assure you."

Some one broke in on our conversation, and as the party very soon rose from the table, it was not resumed.

In a day or two, Mr. Somerville called upon us. Father was quite charmed with him. He often sat with me in the gallery of the Senate Chamber; he knew the history and antecedents of the members so well that I became doubly interested. So the days sped along very rapidly.

We passed the holidays in Washington. Some little time before the new year a fine carriage drew up at our door, and a footman in livery left a note for me.

[CONCLUDED IN OUR NEXT.]

AN EFFECTIVE SOFA ORNAMENT.—A very effective ornamentation for a small sofa is made by taking a strip of satin, plush or of velvet, about five inches wide, and nearly the length of the sofa itself; on this embroider a vine in some distinct and quite open-work pattern. When this is done put a narrow strip of similar material, but of a different color, around it as a plain border. Line it with a stiff cloth, and apply it to the sofa with unseen and immovable pins. It should not be placed in the center of the seat, but be drawn forward so that it is just above the puff or band of plush which finishes the sofa cushion.

YOUNG FOLKS' COLUMN.

The Tragedy of a Bird's Nest.

[Written for the RURAL PRESS by ETHEL BRODT.]

It is with pain that I write the following story, for I was the principal actor in the unhappy tragedy. But I confess it in the hope of convincing others, as well as myself, that it was a passive crime and the result of a nature loving and tender toward God's dumb creatures. It seems hard to tell—that mine was the hand which destroyed forever that happy home, broke the heart of the dear little mother, and hushed the exultant song of that proud father. Perhaps you will forgive me; be kind and at least feel some pity for my sorrow and remorse.

One bright, sparkling morning last spring I discovered a tiny bird's nest in a small eucalyptus tree that grew in the grove back of the house. The little mother sat demurely upon her nest and I soon found that she was not a bit shy, but would let me come quite near to her. I was not long in discovering her mate by his bright yellow coat (they were wild canaries, hardly bigger than humming-birds), and from the joyous song he poured forth as he perched on a tree near by. If I ventured too near the nest he would flit uneasily from tree to tree, and there was a troubled and warning note in his song. Little by little I was able to approach nearer to the nest every day, until at last I could go within a foot of it without alarming the mother. Sometimes, however, I was a little too bold or a sudden movement would startle little mother bird and she would dart quickly from her nest and join her mate, who was always hovering near.

One morning great was my joy to find, instead of the tiny blue eggs it had always held, four blind, naked, ugly birdlings. Their mouths were the biggest part of them, and they opened them as if they wished to swallow me. I wondered how it was possible for their mother to love such homely babies, but I knew she did, for, on looking up, I saw her on a branch near by, watching me critically and chirping uneasily as if to say: "Do please go away, for it would break my heart if anything should happen to my birdies." As for Father Canary, I cannot begin to tell you of the songs he sang, the roundelays that burst from his musical little throat as he swung on the very topmost twig of the big oak tree. They were not elaborate—it was their simplicity that made them so sweet, and the song was in his heart. Those love songs! Those proclamations of bliss! How they used to cheer me in the mornings as I went about my duties; and oh, the silence afterward! He was a model of a true husband, always near by with sweet songs and words of cheer for the little wife, and such tenderness as he put into his happy voice! It almost brings the tears when I recall it.

Every morning I went out to see the little ones. Often I found that their mother had gone in quest of their breakfast, and then I went near and rubbed their little heads and laughed to see their mouths open for something to eat. Sometimes I caught a fly or a bug, or took some crumbs and poked them down their wide-stretched throats, and I really believe they never knew it was not their mother. As they grew older, their eyes opened and their feathers began to grow, and I felt sure they knew me, for they were not a bit afraid, and regarded me boldly out of their bright black eyes.

One afternoon, on going to the nest, I was delighted to find that their feathers had grown very much since the day before, and that they had a very canary-like appearance. As usual, I put out my hands to caress them, when, with a sudden chirp and flutter, every one of them was out of the nest and fluttering on the ground. My flock of chickens was scratching near, and, with their natural curiosity, began to investigate, with outstretched necks and many a cackle, the new kind of bugs that had so suddenly made their appearance. I gave a cry of horror, but, before I could prevent him, Jupiter (my especial pride and chief cock of the barnyard) had pecked one of them to death. With a heavy heart I gathered up the three remaining birds and placed them in their nest. The mother and father were flying wildly from tree to tree, and I got away as quickly as possible, for I could not bear the thought of their reproaches.

Dear reader, no doubt you think that that one lesson would have been enough. Why it was not, I cannot tell; it seems as if Fate led me on blindly to the destruction of that home, and I did not realize that it was but their shy, bird nature to be afraid of me as soon as they learned the power in their little wings.

The next day I could not resist the desire to make my usual visit to the nest, this time more cautiously and at a greater distance than the day before, when, on my near approach, again the little ones, with a cry, fluttered to the ground. This time there were no chickens near, but only two of the birds could be found, and one had a broken leg. It was no easy matter to find them, for their little brown backs were the color of the dry leaves. I searched long and sorrowfully for the third one, for I knew its wings were not strong enough for it to fly back to the nest; but my search was in vain. The bird with the broken leg I took into the house and nursed carefully, but it died the next afternoon. The other one I left in the nest, but on going out the next morning I found that the parents had deserted their home and the little one lay stiff and cold.

That is all there is to my story. Truly it is a sad one. I loved the dear birds, loved their sweet songs; but my love was their ruin. Why was it so? Why was it that my love should bring nothing but pain and death? Oh, that little empty nest, and the long days that followed when I listened in vain for that happy song and looked for the tiny yellow songster! Dear, dear little birds! they must know that of all God's creatures I love them best.

It is springtime again. Out in the grove there are grand concerts given by the red linnets, the robins and the orioles. Among the leaves I see a dash of yellow; it is a little canary, and he sings a song like the one I heard last year. I wonder if it is the same one; if he has forgotten, and the glad springtime has left no room for thoughts of last year's sorrows? Alas! *I* cannot forget, and the pain still lingers in my heart, filling it with sadness.

GOOD HEALTH.

Carriers of Contagion.

How Poisonous Particles are Carried from Place to Place.

To mention a few of the modes of contagion, I have to speak, in the first place, of towels, especially of that abominable institution known as the roller-towel, which has been used so much in asylums where 40, 50, or more children use the same towel, whether they have granular lids or not. True, in a great many of these cases the existence of granular lids was not known; but even in cases in which the existence of the disease was evident, the ignorance or carelessness of the persons in charge has allowed transmission by towels to be one of the most frequent sources of contagion. As a carrier of the contagion the housefly plays an important role, especially in cases of young children who are not able to protect themselves against the visits of this little animal. Attracted by the sweetish odor of the discharge, it will settle on the eyes of children affected with the disease, especially infants, and carry the contagion in its claws to the other eye or to the eyes of sleeping infants.

Spectacles may be the carrier of the contagion. I remember the case of a young lady who could not explain satisfactorily how she came to have granular lids. Upon her return to school she mentioned that she had granular lids, whereupon one of her classmates said: "Why, that is the disease which I have been suffering from for the last six months." This classmate was near-sighted, and used glasses. My patient was also near-sighted, but had not used glasses, and whenever she wanted to see anything at a distance she was in the habit of borrowing the spectacles of her friend, and there is no doubt in my mind that this was the means of carrying the poison from the classmate's eye to the patient's eye.

Children with granular lids are very apt to rub the eyes, because the secretion as it begins to dry on the edge of the lids causes an irritating, itching sensation. They will now play with other children, and from their hands transfer the poison to the hands of the other children, and these latter rubbing their eyes contract the disease. Handling objects which have been used by granular lids patients may be the means of carrying the contagion. A young lady who volunteered to teach children affected with granular lids, and who had been isolated from other children in a certain institution, was warned to be extremely careful with regard to using handkerchiefs, towels, or anything which belong to the children. She was well aware of the danger, and promised to be very careful. She handled nothing whatever, she said, that belonged to the children, left her cloaks outside, and in the classroom kept away from the children a distance of five or six feet. But upon examination of her eyes, 14 days after she had taken office, it was found that she began to suffer from granular lids. Upon inquiry I found that she had been taking the copybooks and slates of the children for correction, and in all probability she got the poison from the slates and books on her hands and then conveyed it to her eyes. A teacher of another section in the same institution was more careful; she simply walked into the classroom, did not touch anything belonging to the children, and for two or three months, during the duration of this epidemic, she was not affected by the disease. The atmosphere had evidently not been the carrier of the contagion in the first case.—*Medical Reporter.*

FOR SCALDS, BURNS, ETC.—The following was recently sent to the *Call*, of this city, by a Boston lady, who stated in her letter that it was not only a specific for scalds and burns, but also for bee stings, bites of insects, and even reptiles: "Make a strong decoction of lobelia herb; apply at once, cold, and keep the part wet with the fluid till the fire subsides, which will not be long. Then the cuticle will, in most cases, be sensitive, and should be covered with collodion, the ether in which is cooling and soothing, and will finish the cure and prevent the skin from breaking. In nine cases out of ten the lobelia will prevent blistering."

DOMESTIC ECONOMY.

Orange Wine.

I herewith send practical instructions for making orange wine in answer to the request of J. A. McClellan. I have sold sour orange wine made in this way for $5 per gallon. I have also made very fine wine from the sweet orange. Mr. McClellan has perhaps failed by allowing his wine to go through acetic fermentation. The wine will continue to improve with age:

Take one part orange juice, well strained; one part water; three pounds sugar per gallon. Any kind of sugar will do, and the darker the sugar the richer will be the color of the wine. For each 10 gallons put up, keep about one gallon of the same for refilling the casks during fermentation. Lay casks on the side, fill full, and leave bung open. Do not let it be exposed to much cold. Fill up the casks every day, from the quantity kept out, as the scum is thrown off, and watch closely until the wine passes through the stage of alcoholic fermentation. This will usually require from 10 to 20 days, or longer if the weather is cool, and can easily be determined by scum ceasing to rise, and the cessation of brisk fermentation. When it arrives at this stage, place the bung in loosely. Watch closely for a few days, and as active fermentation ceases, put the bung in fast. Let it stand two months, then rack off carefully into clean casks. If perfectly clear, seal and let it stand six months, when it may be bottled. If not clear, it should be racked off a second time in two months after the first time and sealed for six months before bottling. Be sure your casks are full, for contact with the air will cause the wine to pass into acetic fermentation. Use either sweet or sour oranges. I prefer the sour.—*F. C. Austin in Florida Dispatch.*

APPLE AND ALMOND PUDDING.—Take about three pounds of apples, two ounces of sweet almonds, one gill of cold water, the whites of two eggs, four ounces of fine sugar and a little lemon or orange marmalade. Put the water and three ounces of the sugar in a preserving-pan and stir till it boils; put eight of the apples, peeled and cored but not split, into the syrup, and cook till soft, but do not let them break. Lift the apples carefully on to a flat dish, and fill that part where the core was taken out with marmalade. Pare, core and stew the remainder of the apples till soft, then press all through a wire sieve; pile this pulp over the apples, and make smooth with a knife. Beat the whites of the eggs to a very stiff froth, sprinkle in half an ounce of the sugar, and spread this froth all over the top of the apples. Dredge on the remainder of the sugar and stick the almonds—previously put in boiling water, skimmed and cut in long, thin strips—very thickly and neatly all over the whites of the eggs. Put the pudding in a slow oven until the almonds take on a delicate golden tinge. Use hot or cold.

HOW TO BROIL.—Heat and grease a gridiron. Never cook anything on a cold gridiron. Lay on the steak or other food, and cover with an inverted pan to keep in the heat and flavor. Turn often while cooking, but do not stick a fork into meat, or the juices will escape. Do not add seasoning till you dish it. Fish and spring chicken should be dredged with flour before being placed on the gridiron. Small things require to be cooked quickly over a clear, hot fire. Large things, unless wished rare inside like beefsteak, should have a moderate heat at first and increased heat toward the last. Among other ways of managing this, the gridiron may first be put a good distance from the fire and afterward moved nearer the fire.

RICE OR HOMINY CROQUETTES.—Boil the rice or hominy till well done; then allow to become perfectly cold. To a pint and a half add a good pinch of salt, three well-beaten eggs, one spoonful of milk, flour enough to roll out in the hands into forms, and one teaspoonful of baking powder. Have ready a deep frying-pan half full of boiling hot fat, drop the croquettes carefully in, fry till a rich brown, serve hot. Many a delicious dessert is made of rice, though of itself it is about as tasteless as an eatable can be; for that reason it seems undesirable to serve it with, or as, a vegetable, as some do.

CRUMB GRIDDLE CAKES.—The night before using put some bread crumbs to soak in one quart of sour milk; in the morning rub through a sieve and add four well-beaten eggs, two teaspoons soda dissolved in a little water, one tablespoon melted butter and enough cornmeal to make them the consistency of ordinary griddle cakes. It is better to beat yolks and whites separately, stirring the whites lightly in just before baking.

RICE BREAD.—Rice bread makes a variety for the breakfast-table. Take one pint of well-boiled rice, half a pint of flour, the yolks of four eggs, two spoonfuls of melted butter, one pint of milk, a little salt and a large spoonful of sugar. Beat all these ingredients till very smooth, and then add the beaten whites of the four eggs. Bake in shallow pans and serve hot.

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The Week.

Rain has come again in dashes; scoring but small fractions on the rain table, but serving to freshen up the surface of the ground and minister to present growth. The deeds of the clouds also serve to maintain confidence in the people, for in a dry year the elements are always in bad shape when they are observing a masterly inactivity. It looks very much as though many of our farmers would have plenty of leisure on their hands, unless they have live-stock to feed, and then they may be made very busy. The doubt and unpropitious outlook in the country is reacting severely on city trade, and nearly all reports are of dullness and depression. People should guard against being too much cast down. No matter how dry it is, things are not going to be so blue as they were in 1877. Our industries are more diversified, and, as stated elsewhere, there has been great advance, both in irrigation and in cultivation. A comforting motto will be that "all things come to him who waits."

The reports of the Signal Service show that the season's rainfall up to Feb. 1st, at San Francisco, was 6.53 inches; the average season's rainfall for the same period being 14.47 inches. The rainfall at other points compares with the average in about the same proportion.

Good Roads.

The even and majestic flow of Webster's oratory was sometimes interrupted by the lack of an appropriate word or phrase that often caused him to flounder a moment in painful embarrassment. The story is told that in the course of a railroad speech delivered in Boston he said: "Mr. Chairman, I am in favor of every road"—here he began to hesitate; the right word was not forthcoming; he repeated the expression the second and third time, and still the word he wanted did not come. Mr. Harrison Otis, sitting near him, whispered, "Except the road to ruin." Mr. Webster caught the hint, and said with powerful emphasis, as if he had just reached the top of a mighty climax: "I repeat it again, Mr. Chairman, I am in favor of every road, except the road to ruin."

We understand that about 25 bills, in the nature of amendments or substitutes to our present road laws, have been introduced into the two branches of the Legislature and referred to the Committees on Roads and Highways. We are in favor of every bill that will improve upon our present road system, and we hope that these committees will thoroughly study the question and draft a substitute for these bills that will embody all that is best and desirable in them all. Next to churches and schoolhouses, good roads mark the enterprise and intelligence of a people. The improvement in public highways has not kept pace with the rapid development of the State, and in many counties, during the rainy season, and especially where an adobe soil prevails, the roads are simply abominable. The country is settling rapidly, and needs, all seasons of the year, the best facilities for travel. An unusual and persistent effort is now being made in all parts of the State to attract immigration. Good roads will captivate the new-comers.

It is suggested that the road laws may be greatly improved in the direction of economy. Under the present system, a roadmaster is appointed for each district who is paid $3 a day, for a period not to exceed 100 days, and, at this rate, Napa county alone, last year, paid to roadmasters the sum of $4200. It is thought that a scheme may be devised by which a portion of this amount may be expended in actual improvements. As the roadmasters are the agents of the Supervisors, it is suggested that the latter be given discretionary power in their appointment. That some districts may need no such supervision while others do. That in many places the opening of new roads, or repairing of old ones, may be more economically accomplished by letting out the job to the farmers in the immediate vicinity. The roadmaster is chiefly concerned to earn his salary; the farmers, along whose line these ways passed, would take a deeper interest in having the work done well. However this may be, it is certain that the present system of opening new roads, or keeping them in good order, is very expensive, and if strict economy and efficiency can be combined, it would be desirable

Then it is contended that the present system of road laws need overhauling in regard to practical availability. It is almost impossible to condemn land for the public use should there happen to be one refractory individual in the community. The laws are strictly construed, and the least technicality, the slightest deviation from the letter of the law in posting or describing the route, vitiates the whole proceeding before the Board of Supervisors. Then it often happens that when all the proceedings are in strict compliance with the law the Board of Supervisors will throw aside the petition of the people and report of the reviewers in a mere caprice. It is contended that no informality should be allowed to vitiate a bona fide proceeding, and the rights of all parties should be determined in the court on proper evidence, independent of the Board of Supervisors.

BECOMING EPIDEMIC.—The wholesome affection of citrus fair is spreading. Tulare and Sonoma counties have caught it, and are expecting to have exhibitions of that kind some time this month.

Cultivation and Drouth.

The fact that thorough surface cultivation conserves moisture and wards off the ills of drouth has fortunately gained wide dissemination in this State during the last few years. It is owing to this fact and practice based upon it that the growth of produce in 1887 (if it should prove a dry year) will be much greater than in 1877. This will be the case in nearly all lines of agriculture. Orchards and vineyards which have been well cultivated will carry over enough water from the heavy rains of last year to give them a good growth this year, even with a very light rainfall. Low-lying corn or vegetable soils, well cultivated, will also carry over enough moisture to give good results, while those which have been permitted to bake down have lost nearly all their possession by evaporation, and slight surface wetting will only support temporary growth.

This year bids fair to bring into full prominence the value of a well-cultivated bare fallow to our grain-growers. The summer-fallowed area has been constantly increasing during the last ten years, and our columns have contained many reports of the increased yield on land thus treated. This year the drouth-resisting quality of summer-fallowed land promises to be brought out very clearly, and we are glad to read in the Stanislaus *News* that the practice has gained such extension in that district as to make the grain-growers happy even in this gloomy season. We quote as follows from last week's *News:*

Here in Stanislaus a precipitation of moisture to the extent of several inches was always deemed a condition precedent to abundant crops until members of the Salida Grange experimented with summer-fallowed ground. Some two years previous, Mr. Vital E. Bangs in an admirable and exhaustive essay before the Agricultural Society of Stanislaus county, then in existence, treated this topic. His subject was: "How to Make a Small Farm Pay," and among other philosophical and scientific suggestions, he referred to that of summer-fallowing the soil by cross-plowing. In this essay, Mr. Bangs was a successful competitor for the first prize. During the season when members of Salida Grange summer-fallowed their land by this method, the annual rainfall was only 3.50 inches, and the yield ranged from 18 to 30 bushels per acre. The result proved so profitable that others adopted the same system of cultivating and seeding, and to-day it has grown to be the rule. We have, perhaps, within the past week, conversed with 50 practical farmers of the county, and out of this number but two have expressed any great degree of solicitude or misgiving as to the outlook. Summer-fallowed land does not suffer as yet, and the expectation is of course hopeful. Those who have observed that plan of cultivation, reasonably hope for fair crops because of past experiences, and others will be brought to a realization of the importance of putting forth every energy for securing proper irrigation facilities. The latter must come if we are to have diversified farming—the secret of the growth and prosperity of many other sections in the State. The people of Stanislaus county have no cause for discouragement. Crops that are in the ground are looking well, and the sentiment in favor of irrigation is fast growing. The future has in store for us all, let us hope, bright and prosperous hours.

Of course the extension of the irrigated area will be another reason why drouth in 1887 will not be so serious a matter as in 1877. It is very satisfactory to contrast the present condition with that of a decade ago, when the comparison yields such a favorable verdict for the present. The wider extent of irrigated area, the wiser use of water, the fuller appreciation of cultivation in promoting growth and conserving moisture—all these are comforting themes in a dry year.

AN INFAMOUS PROPOSITION.—A bill has been introduced in the Assembly, by W. A. Brown, of S. F., providing that any person may procure a license for carrying on the game of faro, roulette, monte, keno, rouge et noir, or any other game of chance played with cards, dice or any other device for money or checks, upon payment to the sheriff of the county in which the same is located the sum of $100 for the first and $75 for each succeeding month. Three-quarters of this money shall go into the county treasury and the remainder into the State Treasury. This is nothing more nor less than a proposal that the county and State take hush money from criminals in advance or accept bribes to let vampires and hyenas prey on weak humanity. It is outrageous and disgraceful to entertain the proposal of such a thing for one moment.

Should Insanity Excuse?

It is becoming a serious question whether the plea of insanity under any circumstance should be allowed to so far excuse murder as to entitle the murderer to his liberty. It has come to be the practice when one is overtaken with a great crime to ransack his whole life for some eccentricity or slight aberration from the normal type, or hunt for some taint in the ancestral line, and then, by the aid of hypothetical questions propounded to the doctors, and other tricks known to the legal profession, spread that one speck of cloud over the whole mental sky. The more atrocious the crime the more easily is this done. In this way many a cold-blooded murderer is turned loose upon the community. No doubt there is such a disastrous state of mind as homicidal insanity, but the question we now raise, and the history of our criminal courts makes it an important one, is not, "is the accused morally responsible to society?" but "has he committed an act hurtful to society?" If it can be proved that he has, then it is certain that he is a menace to the community and should, in some way or other, be so dealt with that he can do no more harm. If the sane man who has committed murder is not a safe person to let loose upon society, then the man whose insanity has taken the form of a mission to kill some one is certainly not a proper person to be at large. If inordinate vanity or a false sense of wounded honor, or a choleric or jealous disposition be allowed an excuse for crime, then criminal trials become a farce, for, in that case, every man who is guilty of an act of violence may plead insanity as an excuse. Persons liable to such paroxysms of rage are not safe to run at large. Such a person, whether adjudged sane or insane, has proved to be a person society cannot safely allow the privilege of personal liberty. Every person who is found irresponsible on the plea of insanity, no matter what the provocation, real or imaginary, may be, should be sent immediately to the lunatic asylum for life. Society has the right and should clear the country of brutal men as it does of wild beasts.

Explosion at Alvarado.

About 2:30 o'clock last Saturday morning, an explosion took place at the Standard Sugar Refinery in Alameda county, which damaged the works to the extent of several thousand dollars, and seriously injured the fireman, Gabriel Denis.

The disaster was due to one of the seven boilers getting nearly dry. When water was turned into the exhausted boiler, it blew up with fearful effect, tearing the boiler-house into kindling wood, knocking over smoke-stacks, and strewing the neighborhood with wreckage.

The mill had finished grinding the last beets at 4 o'clock the afternoon before, and would have finished all work by Monday. The refinery still contained a quantity of semi-refined juice, with no means of saving it. Seventeen men were at work in various parts of the factory cleaning up, but all except the fireman escaped without serious injury.

The factory uses the product of 800 acres, or an annual average of 16,000 tons. The crop last year was unusually large, and it is said that 20,000 tons were ground. The mill, during the grinding season, runs day and night, and the monthly pay-roll amounts to about $4000.

In noticing the disaster, the San Francisco *Post* observes: "We are so accustomed to the association of sugar and sugarcane that we are apt to forget that one-half of the sugar export of the world is produced from the beet, and about one-third of the entire product of the world is derived from the same source. It is also well for those who think lightly of experimental stations, such as we have at our own university, to remember that beet sugar was originally a laboratory discovery, and is not to be credited to chance. Another such purely scientific discovery would repay the cost of all our greater colleges for all time."

The proprietors of the Alvarado sugarie have our full sympathy in the misfortune. They are not the men to be appalled by such things. It is fortunate that the accident came just at the end of the working season, so that there will be ample time for refitting and improving.

TO A CORRESPONDENT.—If "O. J. C.," Selma, will send us her true name and address—not for publication—we shall know better how to dispose of her favor.

The Hydra—A Fresh-Water Polyp.

Our readers who have microscopes, and enjoy the study of the wonders of minute nature, will find much interest in the illustrated sketch we give on this page of the hydra, a fresh-water polyp which can be easily found in suitable places in this State. We are indebted for the opportunity of giving our readers materials for such study to Mr. A. H. Breckenfeld, secretary of the San Francisco Microscopical Society, who recently read an essay on the hydra before that organization, and illustrated it with drawings and photographs and with the living object itself. We are obliged to abridge his account very much, but shall give enough to interest the general reader and point the way for those who desire to study the curious animal for themselves. In connection with the figures will be seen the sign of multiplication, followed by a number, as, for instance, "×29." This refers to the number of times the diameters of the object are magnified, and as most of these numbers are small, it will be seen that a microscope of only moderate power will yield very satisfactory results.

As to classification, the genus *Hydra*, Linn., ranks only a little above the protozoa. It is the lowest form of the great animal sub-kingdom cœlenterata (or sac-animals), which is divided into two classes—hydrozoa and actinozoa—and *Hydra* is the type of the former class, just as *Actinia* (the sea anemone) is that of the latter. Some 6 or 7 species of the genus have been described, but only three of them—*H. viridis*, *H. vulgaris* and *H. fusca*—seem to be well founded, the others being probably only varieties.

Hydra consists essentially of an elongated nodular sac of protoplasmic substance, imbedded in which are found large numbers of colored granules. At the upper end of this sac is a simple opening, the mouth, and just below this is a circle of tentacles, usually from six to ten in number (Fig. 17). At the lower extremity the body is furnished with a flattened suctorial disk, by means of which the animal usually attaches itself to filaments of algæ, rootlets of duck-weed, and similar objects, while its slender tendril-like tentacles are slowly and gracefully waving about in search of prey. Sometimes it uses this disk as a sort of float, and hangs head downward, suspended from the surface of the water. The body and tentacles of *Hydra*, when fully extended, seldom measure over ¼ to ½ of an inch in length, except in the case of the rare species, *H. fusca*, where the animal sometimes attains a length of several inches, owing to the extraordinary development of the tentacles, which, in that species, are many times the length of the body, while in *H. vulgaris* they are but very little longer, and in *H. viridis* usually somewhat shorter. The tentacles are hollow, each being traversed by a canal communicating directly with the body cavity. The body and tentacles of *Hydra* are possessed of most remarkable extensile and contractile powers. At one moment the animal may be extended to such a degree that the tentacles are almost invisible by reason of their fineness; when, upon being disturbed, it instantly contracts until it appears like a minute jelly-like lump, studded with a few stubby knobs. It then slowly expands until it is again fully extended. While it usually remains attached to the same object for a long time, it has the power of changing its position, either by a leech-like crawling movement, or by floating passively in the water until it comes in contact with some other object to which it wishes to adhere.

Hydra is extremely voracious. It subsists entirely upon animal food, consisting mainly of minute worms and the smaller entomostraca. When the prey has been caught by means of the tentacles extended for that purpose, these contract, and the unfortunate victim is forced with remarkable violence into the digestive cavity of the polype, the softer parts being there absorbed, and the undigested portions ejected through the mouth.

The body of *Hydra* is resolvable into two distinct layers, an inner—the endoderm—and an outer—the ectoderm. The tentacles are mere tubular prolongations of these membranes. The endoderm (Fig. 19) consists of a single layer of large nucleated cells of protoplasm, destitute of an investing membrane, but inclosing, in many cases, a vacuole filled with clear fluid. According to Kleinenberg, a few isolated cells of the endoderm are furnished with one or more very delicate cilia. Later observers have asserted that the entire endodermal layer is ciliated, and it is further stated that strong amœboid movements are shown by the cells of the endoderm, more especially in those lining the body cavity. The important fact is now considered well established by recent investigations of T. J. Parker and others, that the digestion of the solid food particles swallowed by *Hydra* takes place in the protoplasm of these endodermal cells, the latter acting almost exactly like an aggregation of amœbæ. In the endodermal cells of *H. viridis* are also imbedded the green granules which give to that species its distinctive color. Their function is not definitely known. It is an interesting fact that, after the most searching investigation of their optical and chemical properties by Kleinenberg, Cohn and others, it has been made a matter of the strongest probability that these green corpuscles are identical with the chlorophyll of the vegetable cell.

The outer membrane of *Hydra*, the ectoderm (Fig. 19 E. C.), is a somewhat more complex structure. Kleinenberg finds that externally it is composed of a layer of large cells of nucleated protoplasm. Below these and running up between them are numbers of small cells with comparatively very large nuclei, constituting what he names the interstitial tissue (Fig. 20 i. t.), in which the so-called nematocysts (or thread cells) and also the reproductive bodies are formed.

Finally, beneath these and in contact with the endodermal layer is a narrow, clear zone, in which contractile fibrillæ are imbedded (Figs. 19 and 20 m. L.): Kleinenberg makes the very important statement that these fibrillæ are processes of or extensions from the above-mentioned layer of large external cells. That is to say, the ectodermal cells taper toward the endoderm, being prolonged into fine processes which frequently divide, and when these processes meet the endodermal layer they bend sharply at right angles and run parallel with the long axis of the body (Fig. 21). These fibers are bound together by a soft, colorless connective tissue into a thin membrane which is everywhere interposed between the endodermal and ectodermal layers.

The curious nematocysts or thread cells (Fig. 22), to which a benumbing property has been ascribed by most observers, originate in the interstitial tissue, but as they become mature they are pushed toward the surface of the ectoderm. Each consists of an oval capsule, coiled within which is a delicate spiral elastic filament, provided with four short recurved spines. This can be suddenly unrolled with considerable force, and by its projection into the body of the polype's prey it is supposed that the latter is frequently benumbed, so that its capture by the tentacles is rendered easier.

At certain seasons of the year the reproductive organs of *Hydra* may be observed. They consist of spermatic capsules and of ovaria. The first of these arise as conical whitish elevations from the body wall, just below the circle of tentacles (Fig. 17, s. c.). They are usually from two to five in number, but in some abnormal cases as many as 20 have been observed. In them are formed the ciliated spermatozoa which are subsequently ejected through the apex of the capsule at about the same time that the egg is extruded from the ovarium.

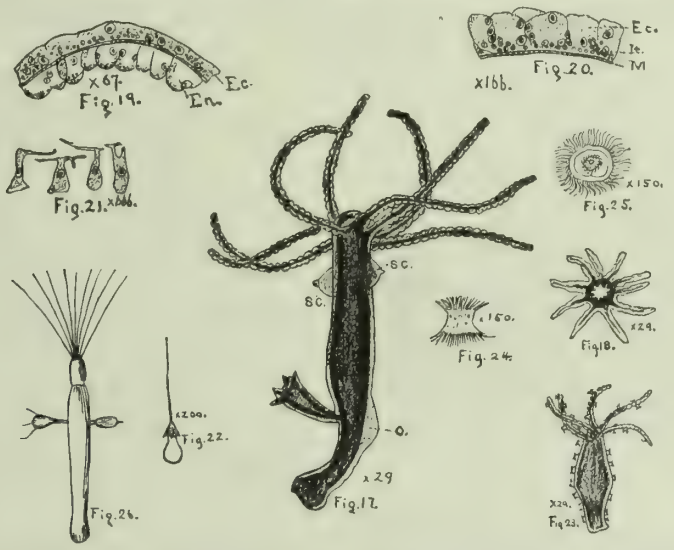
Like the spermatic capsules, the ovarium (for in *H. viridis* there is usually but one) is formed in the interstitial cells of the ectoderm, but nearer the fixed extremity, appearing as a large round protuberance. (It is shown just beginning to form at o., Fig. 17.) With only very rare exceptions both sets of organs are formed upon the same individual, the spermatic capsules generally being developed first. When the ovarium has reached a certain stage, the soft protoplasm of the inclosed egg gradually exudes from the aperture in the apex of the investing membrane (still remaining attached, however, to the ovarium), and is then fertilized by the spermatozoa, which about this time issue from their capsules. The process of segmentation then sets in, and a thick, hard shell is secreted in about four days. After the formation of the shell the egg severs its connection with the parent *Hydra* and sinks to the bottom. The boundaries of the contained cell walls gradually disappear, and by a curious apparent retrogression the contents of the egg are once more a continuous mass of protoplasm. In this is formed a cavity which ultimately becomes the body cavity of the young *Hydra*. The succeeding stages of development are slower, and finally, usually in 6 to 8 weeks from the secretion of the shell, the young animal is liberated, closely resembling the parent in everything except size. It will thus be seen that *Hydra* has no larval stage, differing in this respect from all other hydroids. During the period of embryonal development a great mortality is caused by the growth of the mycelium of fungi, by the spores of which the naked egg has been infected. Out of 1500 eggs gathered and studied by Kleinenberg, about 1100 were destroyed in this manner. These figures are also interesting as an indication of the persistent industry of this investigator.

Hydra also multiplies by gemmation—a process strikingly analogous to that of "budding" in plants. A little swelling on its body surface gradually elongates, at the free end a mouth is formed, below which is developed the crown of tentacles, and thus a young *Hydra* makes its appearance, the entire process being usually completed in a few days. (See Fig. 17.) The communication between its body cavity and that of the parent is at first uninterrupted, and food captured by either individual seems to be appropriated by both. Gradually, however, a constriction occurs at the point of contact, and finally complete separation ensues. Very frequently several young *Hydræ* are attached to the parent, and buds are in turn often developed on these before they leave the parent stem. Carpenter copies an old figure from Trembley's work, in which an individual of *H. fusca* is shown with no less than 19 young polypes attached in various stages of development. Kleinenberg has made the interesting observation that where an individual of *H. viridis*, with a numerous progeny attached, was placed in a glass containing very little food material, in the course of a few weeks first the bodies and then the tentacles of the young animals were reabsorbed by the parent *Hydra*.

Of all the many marvelous properties possessed by this remarkable little organism, perhaps the most extraordinary is its power of reproducing lost parts. The researches of Trembley and Baker on this peculiarity are even at this date well worthy of perusal. To quote from one authority: "If the body be cut into two or more—even into 40—parts, each portion continues to live and develop a perfect new animal. If the section be made lengthwise, so as to divide the body, all but the end, the two portions become resoldered and form a perfect being; if the pieces be kept asunder, each becomes a *Hydra*, the two possessing but one posterior end; if the section be made toward the head, the two bodies will be perfected and remain attached to the one head. If a tentacle be cut off, a new animal is formed from it. When one end of the body of a *Hydra* is introduced into another, the two unite and form one; the head cut off one may be engrafted upon the body of another which wants one; and when the body is turned inside out, the outer surface, which has thus become the inner, will perform the ordinary digestive functions, and the animal will continue to live."

The geographical distribution of *Hydra* is known to be very wide. Certainly throughout the temperate zones this interesting organism is plentifully found in suitable localities. Probably its favorite habitat is on the radicles of the lesser duck-weed (*Lemna minor*). I have also found it quite often on *Vaucheria*, and occasionally on other algæ. It is distinctly visible to the unaided eye, and after having once been pointed out it will ever afterward be easily recognized. I have only succeeded in finding two species in California, *H. viridis* and *H. vulgaris*, and these appear absolutely identical with those species as found in the Eastern States and in Europe. Mr. King, of Santa Rosa, reports having found *H. fusca* recently in Mark West creek.

The little "plant animal" has been a celebrity in the scientific world for nearly a century and a half. Nor is this to be wondered at, for in the whole range of microscopic life there are few, if any, animals possessing equally attractive features to the investigator. Its graceful movements and interesting food-habits, its comparatively simple structure, its plant-like appearance, its wonderful methods of reproduction, and the important light which many facts in its histology have thrown upon the elucidation of structure in the higher animals, all invite attention and study.



STRUCTURE OF THE HYDRA, AS SEEN WITH THE MICROSCOPE.

EXPLANATION OF PLATE.

Fig. 17. *Hydra viridis*, expanding its tentacles, × 29 diam.
Fig. 18. Tentacles and mouth of *H. viridis* 5 minutes after being cut from the body, × 29 diam.
Fig. 19. Part of transverse section of body (after Kleinenberg), × 67 diam.
Fig. 20. Transverse section of ectoderm (after Kleinenberg), × 166 diam.
Fig. 21. Neuro-muscle cells (after Kleinenberg) × 166 diam.
Fig. 22. Nemato cyst or thread cell, × 200 diam.
Fig. 23. *Hydra viridis* with parasitic trichodinæ, × 29 diam.
Fig. 24. *Trichodina pediculus* Ehr., lateral view, × 150 diam.
Fig. 25. *Trichodina pediculus* Ehr., under side, × 150 diam.
Fig. 26. *Hydra*, copied from original drawing of Leeuwenhoek.

ABBREVIATIONS USED IN ALL THE FIGURES.

Ec. Ectoderm.
En. Endoderm.
S. C. Spermatic Capsule.
O. Ovary.
Me. Nerve-muscle cells.
It. Interstitial layer of cells at base of ectoderm.

CARRYING THE WAR INTO AFRICA.—The rivalry between different parts of the State, as to securing immigrants from the East, has taken on new features. Agents from several of the central counties, notably Sacramento and Santa Clara, are to be established in Los Angeles, for the purpose of making known to visitors from beyond the Rockies the capabilities and charms of Northern and Central California, and inducing them to "give us a call before purchasing" land and settling below the Tehachapi. It is now in order for our Southern friends to return the compliment by planting agencies in San Jose and Sacramento.

A NAPA COUNTY FAIR.—It appears from the *Register* that Napa is agitating the organization of an agricultural, horticultural and viticultural society. Certain of her citizens started a subscription some time ago with a view to raising sufficient money to buy and fit up grounds for an annual exposition. Sums aggregating $5000 were subscribed, and it is now proposed to renew the canvass.

SANTA BARBARA is jubilant in the expectation of having a railroad before long.

ENTOMOLOGICAL.

Winter Washes for Insect Destruction.

W. G. Klee has issued the following as Bulletin No. 4 of the State Board of Horticulture, which will be found to contain timely and practical information:

The publication of the biennial report being somewhat delayed, it has been thought advisable to give a short extract of the chapter relating to such remedies as are applicable during the *dormant season*.

The most successful winter wash against the armored scales, such as the *Perniciosus* scale, *Aspidiotus perniciosus*, the greedy scale, *Aspidiotus rapax*, and even for the oystershell bark louse, *Aspidiotus conchiformis:* the best protected of all have proved to be those containing part soda and part potash lye.

From personal experience we recommend two formulas of this kind:

	Per cent.
1 lb. of solid concentrated American lye, or	80
4-5 lb. of powdered caustic soda, or	98
1 lb. of powdered caustic soda, or	76
1 1-4 lbs. of powdered caustic soda, or	63

To any one of the above add 1 lb. of commercial potash, 52 per cent, to be dissolved in 2½ gallons of water.

This proportion was, I believe, first recommended by Mr. M. Cooke, and has in all cases which have come under my observation proved very successful.

Another Formula

Recommended by Prof. Hilgard is undoubtedly equally good, but I have not had an opportunity to see its results, except in one or two cases. As will be seen from prices given below, it will cost about one cent a gallon less than the above:

	Per cent.
1 lb. of solid concentrated lye (American), or	80
4-5 lb. of powdered caustic soda, or	98
1 lb. of powdered caustic soda, or	76
1 1-4 lbs. of powdered cautic soda, or	63

To any one of the above add ½ lb. of commercial potash, at 52 per cent, to be dissolved in 2 gallons of water.

Prices of Alkalies.

The prices of soda and potash vary considerably. Caustic soda is high just now. Greenbank, 98 per cent, is worth 9¼ cents in cases of 240 pounds; in small lots, say 10 pounds, 10 cents per pound.

Caustic soda	76 per cent
Caustic soda	63 per cent

Concentrated (solid) American lye, 80 per cent, is sold at about 7¼ cents per pound.

First sorts of potash (commercial potash), containing about 52 per cent of caustic potash, 6½ cents, in drums of 600 pounds; small quantities, 9 cents.

The Best Kind of Weather for Applying Alkaline Washes.

The vast difference in results with alkaline washes—notably with those containing soda alone—are due not alone to their very varying strength, but to atmospheric conditions also. We quote Prof. Hilgard:

In examining trees that have been sprayed with soda lye alone on a sunny day, it will sometimes be found that within an hour after the spraying, the dry portions are covered with a network of small, white needles, resembling white frost. These needles are simply solid carbonate of soda, and show that by the action of the dry air the "causticity" of the lye has been quickly destroyed. The bland, common, sal-soda has taken its place, and the action is practically at an end.

FOGGY WEATHER THE MOST FAVORABLE.

It is quite otherwise when the spraying has been done on a moist or foggy day, or late in the afternoon, so that the lye remains in a liquid condition. It then goes on working for many hours, eating away the edges of the old scale, and finally reaching to the old insect or eggs inside; and should favorable weather continue, the toughest old inhabitant may thus be destroyed in a single application.

ADVANTAGES OF USING POTASH.

The use of the potash compounds in connection with the soda lye aids materially in maintaining active corrosion more or less independently of the moist weather, by preventing the rapid evaporation and solidification that so often puts a premature end to it. Moreover, the potash compounds so used ultimately reach and remain in the soil, and act as a fertilizer when needed, so that the money spent on them is not gone with the insects.

Mode of Preparing Washes.

The easiest way to prepare the alkali washes, especially the solid concentrated lye, is by suspending the material in a barrel of water, either putting it on a perforated piece of tin or into a sack. Being thus suspended, the diffusion is quite rapid, and the material will require but little looking after. By using hot or boiling water the action, of course, is hastened very much. When dissolved thoroughly, each kind having been kept separately, they are mixed and stirred well, so that they become thoroughly mixed. The liquid should be strained through a fine sieve (brass) or a cloth, so that no clogging is possible when the wash passes through the nozzle.

The San Jose nozzle has been, and is being, very generally used, but for lye washes it is, in my opinion, inferior to the Imperial and the Cyclone. The latter has the advantage of throwing the stream better on the under side of branches and foliage. When a pump with two outlets is at work, the two kinds of nozzles may be used to advantage. One man may work principally on the upper part of the tree with the Imperial (because its spray, being thrown straight, hits the more vertical branches squarely), while the other man will reach the lower more horizontal branches better with the Cyclone spray, carrying, as it does, either upward or downward.

How to Prepare the Tree for Spraying.

If large trees, say over 20 feet high or even less, are to be treated, it will be found the best policy to cut them back to reaching distance, otherwise the probability is that part of the tree will not be reached. Likewise it is necessary to cut away such limbs as are preventing the free movements of the workmen. For trees of all sizes we prefer the pruning of all the heavier limbs first, and the complete thinning of the trees, leaving the leading shoots uncut, to avoid the possible danger of the killing back of buds which were intended for next year's growth.

Badly infested trees, when the scales are layers thick, may need two treatments, with an interval of 10 days.

Caution.

Owing to the advanced condition of peach trees in early sections, the strength of alkali cannot be used without running the risk of sacrificing the fruit buds.

The strength given in both formulas should not be used on any trees after the buds have commenced to swell sensibly, and in almost all sections, except in very late ones, the wash should be finished by the end of February.

Actual Cost of Spraying.

Putting the cost of material per gallon at 5 and 6 cents respectively, a half cent for preparation, making 5½ and 6½ cents, we find that a tree, say 6 to 7 feet in diameter and 8 to 9 feet hight of crown, will require about 1 gallon, and the cost of application will be 6 to 7 cents, we have a total cost of 13 cents per tree; larger trees in proportion. We have endeavored to find a plain and easy mode for testing commercial lyes. There does not seem to be any which can be used by any one. We recommend that the purchaser demand of the sellers to see their custom house certificates, which will indicate the strength of the lye. He will then at least know what strength has been received. We shall have to rely greatly upon the honesty of dealers. The so-called lye-testers are really misleading, except when we deal with pure articles. As they only test the density of the liquid, soluble salts or other inert substances may be present without being discovered by this test.

Woolly Aphis.

For the subjection of this most troublesome and widespread enemy of the apple tree, a number of years' experience has convinced us that gas lime (used with moderation), the refuse from gas works, is both a lasting destroyer of the insect and a fertilizer. Use from 1½ to 2 shovelfuls of fresh gas lime per tree, spreading it over the surface around tree to cover about 6 feet in diameter. If the soil is deep and well drained, a much larger quantity may be safely used. Care should be taken not to pile the gas lime around the neck of the tree, as the solution of gas water formed by the rains might scald the bark. To prevent possible migration from the roots to the upper branches, place a shovelful of fresh ashes around the base of the tree. The dressing with gas lime should be done as early as possible, that the rains may have full effect on it and carry it into the ground. For the form of woolly aphis infesting the top, the daubing of kerosene on the infested knots is a fair remedy; washing, especially in the summer, with the summer wash recommended in Bulletin No. 3 (see forthcoming report). However, when the red ladybugs are numerous, we prefer to trust the extermination of the aphis to them.

Codlin Moth.

The fighting of this insect must be principally done in the spring and summer, the line of defense being indicated in my report. The winter work must consist in reducing the hiding-places for the cocoons. As these are often found many inches below ground, the soil should be removed and bark scraped. If the trunk has very rough bark it should also be scraped, and if it is covered with lichens or moss give it a spraying with a weak lye solution, half the strength of what is indicated above.

Peach Moth (Anartia Lineatella).

The first brood of worms bore into young limbs of peach trees, the second into the fruit. The bulk of the pupæ evidently harbors in the ground, and dusting with gas lime about in the same manner as for woolly aphis might prove a remedy. Any infected limbs should be cut off and burned, and no hiding-places for them allowed. It is in the spring that they show their work most plainly by the withering young shoots. These must be cut off and destroyed.

Cottony Cushion Scale (Icerya Purchasii).

For all deciduous trees, such as locust, which is much subject to this pest, we recommend one-fourth pound of concentrated lye, one-fourth pound of whale-oil soap, to one gallon of water. Before treating the tree, cut off the tops down to the main branches and burn them. For evergreens, the summer wash recommended last summer is useful, and will not hurt healthy foliage: Dissolve 30 pounds whale-oil soap (80 per cent soap, at the most costing 5 cents per pound,) in 60 gallons of water, by heating the two together thoroughly. Boil 3 pounds of lye (American concentrated lye is what we have used) with 6 pounds of sulphur and a couple of gallons of water. When thoroughly dissolved, it is a dark-brown liquid (chemically sulphide of soda). Mix the two, the soap and the sulphide of soda, well, and allow them to boil for about half an hour, then add about 90 gallons of water to the mixture, and it is ready for use. Apply it warm, at about 130° F., by means of a spray pump. Used warm its effect is better, and less material is required than when cold. It must, however, be remembered that the minute scales are especially numerous on the under side of leaves. This fact makes the extermination on a large tree in full foliage almost next to impossible. Only small trees may be successfully treated in this way. Large trees must be either deprived of their foliage or cut down to a few limbs. Neither of these methods can be safely applied on tender trees during a season when sharp frost may be looked for. A spraying should, however, be done, as it will check their spread most effectually. Too great pains cannot be taken in removing infected limbs, as the insect spreads often in this way. A canvas should be spread around the tree, so that none of the insects can escape. When the tree has been treated, spread hot ashes around its base and apply tight-fitting bands, smeared with a greasy substance around the trunk to prevent any insects reascending.

W. G. KLEE,
Inspector of Fruit Pests.

The Proposed Insect Law.

The following is an outline of a bill for the repression of insect pests introduced in the Senate by Hon. L. J. Rose, of Los Angeles county. It was referred to committee and is entitled "An Act to prevent the spreading of fruit, fruit tree and vine insect pests, and to provide for their extirpation."

Section 1 enacts that all fruit, fruit trees, ornamental trees, vines, plants or shrubs, infested by an insect or insects, their germ or larvæ, or infected by disease known to be injurious to fruit or fruit trees, etc., and liable to spread contagion, must be cleansed or disinfected before the 1st day of April, 1887, and thereafter, before the 1st of April of each succeeding year, and as often also as directed by the State or local inspector. All owners or occupants of land on which fruit trees are grown failing to comply with the provisions of the Act shall be guilty of a misdemeanor, and fined as provided in the Act, and all such fruit, fruit trees, etc., are declared a public nuisance, and on complaint of a member of the State Board of Horticulture, or Inspector of Fruit Pests, etc., it shall be the duty of the District Attorney of the county to bring action against such offending parties.

The fines for non-compliance are set out as not less than $50 and not more than $300 for each offense.

Section 4 provides for the shipment of fruit, etc., the packages in all cases to be stamped with an official stamp after inspection. Infringement of this section is also a misdemeanor.

Section 5 regulates the inspection of fruit, etc., and enacts that a certificate shall be granted on application by the inspector to the effect that the fruit, etc., is free from contagious disease, etc.

Section 6 provides for the appointment by the Boards of Supervisors of three commissioners, upon a petition being presented signed by fruit-growers representing a majority of acreage, who shall have full power to inspect and order the destruction of all fruit or fruit trees infested with pests, etc., and be known as the County Board of Horticulture.

It shall be the duty of the local inspectors in each county, whenever informed by complaint of any person residing in such county that the premises of a certain person are infected with injurious insects, to inspect the premises, and, if found infected, shall notify the owner to disinfect the same within a certain time, and, if he does not do it, civil action will be taken.

The appointment of inspectors at salaries of not less than $3 and not more than $5 a day for each day on which they are employed is also provided for.

The Fruit-Growers to Pay.

It is reported that a bill to amend the law, or rather a new bill, was in contemplation to tax the fruit-growers to meet the expense of inspection, etc., when a petition from a majority of fruit-growers in a district would request it to be done.

Whitewash Spray for Scale Insects

A. T. Covell, of Fresno county, has successfully tried a new remedy for destroying the scale-bug on fruit trees, and has made public the result of his experiment and the ingredients of the preparation used. He tried the remedy on his peach trees last spring when they were just budding out, and the result was a fine crop of peaches. The new branches grown since the remedy was applied are bright and perfectly free from scale. The old branches and bodies of the trees were so badly damaged by the scale-bugs that the new growth of limbs on many of the trees has the appearance of coming from almost dead bodies. The old scale-poisoned bark is now peeling off, leaving a new and healthy bark under it.

Mr. Covell's remedy is 50 pounds of unslacked lime, 20 pounds of French sulphur and 15 pounds of salt, prepared as follows: Place 10 pounds of lime and 20 pounds of sulphur in a heater with 20 gallons of soft water. Boil for half an hour or more, until both lime and sulphur are dissolved. The sulphur must be thoroughly dissolved and mixed with the lime; the mixture will then be of an amber color. Next place in a cask or box 40 pounds of good lime and pour upon it enough soft hot water to thoroughly slacken the lime and keep it in a liquid form. After the lime is thoroughly slacked add 15 pounds of common stock salt while the material is hot. When the salt is well dissolved mix the two lots together, with sufficient water to make 60 gallons of spraying material, which will then be a thin whitewash. The material should be strained after being thoroughly mixed—a good piece of burlap answering well for the purpose. Apply the mixture with a spray pump, using a rubber plate in the nozzle instead of the brass plate. The rubber plate must be cut from blocks of pure rubber, or nearly so, and not a cotton mixture; it may be cut from blocks used where buggy shafts connect with the axle. It should be cut evenly and about one-tenth of an inch thick, with a very small incision made in the center with a flat awl or a sharp-pointed knife, the awl being best, as it makes an even hole which prevents the spray going to one side. The rubber plate will permit any small particle to be forced through the hole in it, as it will expand and thus save time of cleaning out a brass plate. Apply the material warm or cold. Care should be taken to wet every part of the tree; and for the body of the tree hold the nozzle close to the bark, to force the liquid into all the crevices.—*Exchange.*

Ladybugs and Codlin Moth.

EDITORS PRESS:—The remarks of some writer in the PRESS that the ladybug larvæ destroy the codlin moth larvæ remind me that my orchard has plenty of the former and few, if any, of the latter. The ground is mostly reclaimed springy tule land, oversupplied with weeds all summer, and the weeds well supplied with the ladybug. The apple trees have been in bearing six years, and I have seen but one apple showing sign of codlin moth. An older orchard, three miles distant, irrigated and clear of weeds, is completely captured by the moth. Until that article appeared in the PRESS, I had no idea that either weeds or ladybugs were profitable in an orchard. M. W.

Paskenta.

MEXICAN ORANGES.—A gentleman lately come from Sonora has informed the Los Angeles *Times* that quite a trade is being built up between Hermosillo, the capital of that State, and the East in oranges, which are shipped by the carload by way of the Guaymas road and Benson. These oranges are very sweet and are preferred in Arizona to the California fruit. They are purchased in the neighborhood of Hermosillo, in small quantities, at 50 cents per hundred. Better rates could be made for them in bulk, but the difficulty is to secure delivery from the Mexicans at any definite time. They will make a contract to deliver on a certain day, which they may fill next day, or next week, or not at all. If a few live Americans should go down there a large industry would be built up, as oranges seem to grow in Sonora with scarcely any attention.

War Ahead.

There is great danger of war with Mexico in the near future, but at present we can pursue the arts of happiness, prosperity and wealth. Wherever you live, you should write to Hallett & Co., Portland, Maine, and receive free, full information about work that you can do, and live at home, earning thereby from $5 to $25 and upward daily. Some have earned over $50 in a day. Capital not required; you are started free. All is new; both sexes. All ages. Pay, as above guaranteed, from first start.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
R. G. HUSTON—Montana.
GEO. MCDOWELL—Fresno and Tulare Cos.
M. S. PRIME—San Joaquin and Alameda Cos.
L. DOYLE—Amador and Calaveras Cos.
J. P. POWERS—Napa and Sonoma Cos.
W. J. FREEMAN—Sierra and Plumas Cos.
A. J. HARE—Sacramento Co.

It Should Always be Borne in Mind

That time is the only really impartial test of genuine merit, and that according to the universal law of "the survival of the fittest," few sewing machines have withstood this test. Therefore, the only safe thing to do is to buy what time has proven to be the fittest"—the "DOMESTIC" SEWING MACHINE.

Cheap Money for Farmers.

Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes.

A HUGE TULE HOG.—Wm. Christopher, a well-known farmer of San Joaquin county, killed a monstrous wild boar New Year's day in the tules near the head of Twenty-one-mile slough. One of the men employed on his ranch had gone into the tules with a shotgun in search of game. He had not proceeded far when he heard a noise, as of some heavy animal forcing its way through the thick tangle of tules. A moment later he was startled by seeing an enormous wild boar step from the brush a few feet in front of him. The animal appeared to be as much surprised as the man, and stood for a few seconds gazing at the hunter. The latter turned and ran for a small willow tree. The boar with an angry snort gave chase. The man dropped his gun and "shinned" up the tree with alacrity, while the boar went to work on the trunk with his sharp tusks. The hunter's cries for help were heard by Mr. Christopher, who went to the rescue armed with a rifle. His aim was sure, and with a shrill scream the huge animal dropped, mortally wounded. Another shot from Christopher's rifle finished the business. The boar weighed 750 pounds. His head was taken to Stockton and exhibited as a curiosity. The tusks were four inches long, and their edges were almost as sharp as razors. Judging from the seams that extended the full length of each tusk, it was estimated that the animal was about 21 years old. It is said that the dead boar's mate has her haunts near Twenty-one-mile slough, and Mr. Christopher has offered a reward of $50 for the capture of the animal alive.

DOES IT PAY?—E. W. Holmes, writing of Riverside in the Los Angeles *Herald*, says: That orange growing is profitable here is satisfactorily shown by the fact that from the place for which Hon. A. P. Johnson paid $8000 six years ago he has this year sold his raisin crop for about $2500, and his oranges for $8000—over $10,000. The Hewettson orchard, which cost its purchaser $27,000, this year has a crop worth $10,000. This is the oldest place in the valley. A. M. Aldrich, a hard-working man, paid $400 an acre three years ago for land in a choice location in Brockton Square, and his vines, less than three years old, this year paid him fully $200 per acre. Such instances can be cited indefinitely, and will be verified by any who may investigate.

LIVE-STOCK SALES IN CHICAGO.—They are endeavoring to improve the live-stock trade in Chicago by organizing a National Live-Stock Exchange which shall have the following uniform scale of prices for the sale of live-stock: Fifty cents a head for cattle, except calves, yearling and stock cattle, which will be $10 per carload, and all live-stock driven into the yards at following rates: Cattle, 50 cents; calves, 25 cents; hogs and sheep, 10 cents per head. It was decided to dispense with the services of traveling men and all manner of drumming for business.

"He who is false to present duty," says Henry Ward Beecher, "breaks a thread in the loom, and will find the flaw when he may have forgotten its cause." A case in point occurs to us. Mr. Wm. Ryder, of 87 Jefferson street, Buffalo, N. Y., recently told a reporter that, "I had a large abscess on each leg, that kept continually discharging for 20 years. Nothing did me any good except Dr. Pierce's 'Golden Medical Discovery.' It cured me." Here is a volume expressed in a few words. Mr. Ryder's experience is entitled to our readers' careful consideration.—*The Sun.*

A Sudden Death

From heart disease is now quite common. Dr. Pierce's "Golden Medical Discovery" is a certain remedy. Chronic irritation, palpitation, excessive or defective action of the heart, shortness of breath, and pain are removed by it in a short period. It also cures all the diseases relating to the liver, stomach, bowels, blood and skin.

No lengthy advertisement is necessary to bolster up Dr. Sage's Catarrh Remedy.

BEST TREE WASH.

"Greenbank" 98 degrees **POWDERED CAUSTIC SODA** (tests 99 3-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,
Manufacturers' Agents,
218 California St., San Francisco

ROOTED VINES

Of the following varieties FOR SALE:

Colombar, Folle Blanche, Burger, Zinfandel, Mataro, Carignan, West's Prolific, Trousseau, Charbono, Grenache, Frontignan, Lenoir, Merlot, Cabernet Franc Semillon and Sauvignon blanc.

C. J. WETMORE,
Livermore, Cal.

REMOVAL NOTICE.

On February 1st I will remove my office from present quarters to

No. 26 BEALE ST., near Market.

Warehouse as heretofore, at corner Fifth and Bluxome Sts.

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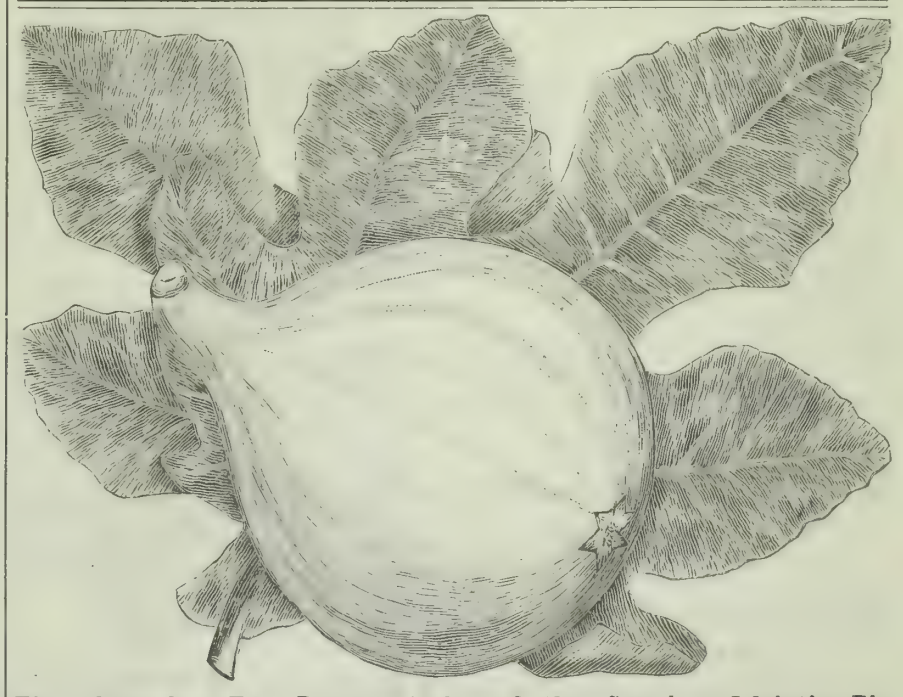
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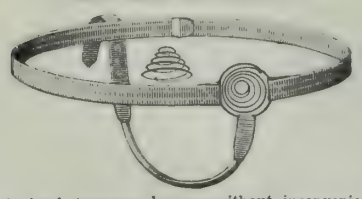
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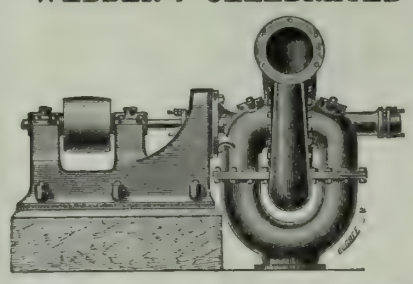
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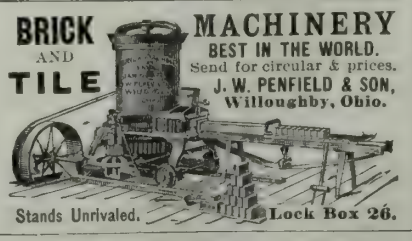
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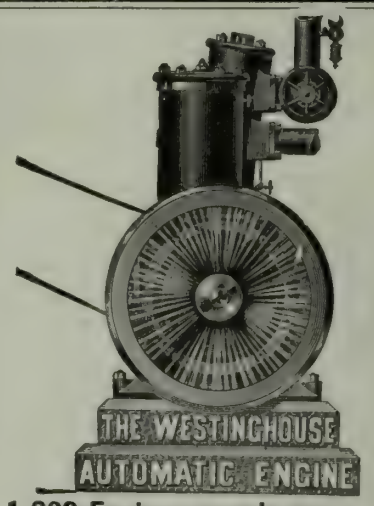
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The Central California Citrus Fair.

EDITORS PRESS:—Anxious to furnish the readers of the RURAL PRESS with all obtainable information in regard to the Citrus Fair to be held in the Garden City, your correspondent interviewed several prominent horticulturists, to whom he is indebted for many of the facts presented in this article.

Captain Frank Dunn,

Secretary of the Horticultural Hall Association, talked as follows:

The Central California Citrus Fair to be opened next Monday in Horticultural hall, San Jose, is the natural result of the rapidly increasing interest in the fruit industry in Santa Clara county. This county, though situated at the "back door" of San Francisco (the commercial metropolis of the Pacific Coast) and possessing a climate and soil unsurpassed by any country in the world, remained indifferent, with a few exceptions, until within the last seven or eight years, to its great advantages in the production of fruit. It is true that a few of the older and more enterprising pioneers of Los Gatos, the Willows and New Almaden, whose names I cannot now recall, developed its capability to produce any and every description of fruit known to the civilized world. Still it was not until about the time above mentioned that the facts began to be admitted, and even then a great many who possessed good fruit land began its cultivation in fear and trembling. Now I think nobody doubts its capability of production. It is true that complaints of an overstocked market are often heard, but that will be regulated in time. With increased facilities for Eastern transportation, and a more intimate acquaintance with the excellent quality of our fruit, these complaints will disappear.

In the report of the Secretary of the California Fruit Union, Santa Clara county stands second only in the amount of fruit shipped East last year; and this was its first attempt at shipping on a large scale, or on a co-operative plan. When the 1400 fruit-farms now under cultivation come into full bearing, it is more than likely that this county will head the list by long odds in its Eastern shipments, and the excellent character of its fruit, four-fifths of which is grown without irrigation, should enable it to control the market.

In the near future its citrus fruits will form no inconsiderable portion of its Eastern trade. When the committee appointed by the Horticultural Hall Association to collect citrus exhibits for the coming fair visited some of the orange groves of Los Gatos, Saratoga and the foothills east of San Jose, they were very much surprised at their extent and general healthy appearance. There are also small orange groves along the road to Los Gatos and Saratoga, and many gardens along the Alameda contain two or three orange trees for family use. In the vicinity of Los Gatos the committee found potatoes and tomatoes growing, and a great variety of tropical flowers in full bloom in the middle of January,-specimens of all of which will be on exhibition.

It is now scarcely two years since the Grange conceived the idea of creating a better understanding between this great number of fruit-growers by bringing them together for the purpose of exhibiting their productions and comparing notes. With this object in view, the present fine hall was built with a capital stock of $12,000, divided into 480 shares of the par value of $25 each. The building is 166 feet long by 80 wide; and the roof, which is of corrugated iron, being supported by a truss, leaves the whole floor without a single obstruction. The studding is 24 feet in the clear; the floor of best quality of vertical grain Oregon pine. Four large frosted-glass skylights in the roof afford during the day a pleasant, subdued light in every part of the building. The sides are furnished with galleries 10 feet wide the whole length, supported by iron rods from the roof. The kitchen and dining-room constitute an addition to the rear of the building, and afford accommodation to 60 or 75 guests. There are dressing-rooms for ladies and gentlemen, and the waste-water pipes from the kitchen and dressing-rooms connect with the main sewer on San Fernando street, with a grade of 1 to 16, insuring a safe discharge of all sewage from the building. The hall is located at the junction of San Pedro and San Fernando streets, in a very central part of the city and very near the intended site of the new City hall. There is, probably, no better hall in the State of California for holding horticultural exhibitions.

Acting on the broad principle contained in our declaration of purposes, viz.: "that individual happiness depends on general prosperity," the directors have invited all the adjoining counties to assist at the coming exhibition. No doubt favored localities in some of our sister counties will surpass us in the production of some variety of winter fruits, and gladly will we award them the palm of superiority for such, sincerely hoping that the whole enterprise will lead to a more friendly intercourse and a freer interchange of opinions on subjects of mutual interest.

Although the hall is furnished with 75 gas-jets, it will be lighted during the exhibition by electricity.

Last Saturday a directors' meeting took place and some

Interesting Facts

In relation to the fair were developed. President Jones stated that invitations to the fair had been sent to the State officers, members of the Legislature and leading journalists; that the S. P. C. railroad (Narrow Gauge) had consented to transport all exhibits along the line of the road free of charge; and that it is necessary that the articles intended for exhibition be sent to the hall between February 3d and 5th.

Judge Peckham, president of the San Jose Woolen Mills, has engaged space 12x16 feet for his exhibit of woolen products. Mr. W. H. Wright, superintendent of the San Jose Fruit-Packing Company, promises a fine display of canned goods.

Mrs. E. Hagenmyer, who lives on the Alameda, had a tree which bore 500 oranges this season. Being troubled by mischievous boys, and desiring to save the fruit for the fair, she had posts set in the ground around the tree and upon them placed barbed wire four inches apart as far up as persons could reach. The expense was $15. The lady deserves mention for the interest she has taken.

W. F. Gunkel, of Cupertino, will show tomatoes and almonds. He has about 1000 bearing almond trees, six years old, which this year produced over three tons of nuts. He also has about 300 Silver and 1200 French prunes. The tomatoes are in all stages of growth, the frost not having injured them.

David Powell, who has gone to Los Angeles to get up excursions from that place to the Citrus Fair, writes the *Mercury* that the first excursion will leave there on Thursday of this week.

A lemon measuring over 11 inches in circumference was grown this season on Mr. L. F. Parker's beautiful home place near Los Gatos. The tree from which it was picked will net him this year over $25. His orange trees are loaded with fruit of fine flavor and large size.

The experiment of raising citrus fruits in the mountain districts of this county has been tried and proved a success. In the Summit district, which has an elevation of 1500 feet above the sea level, orange and lemon trees are now in blossom and in bearing, untouched by frost. Geraniums, abutilons and heliotropes are in full bloom.

Apples, prunes and grapes are the principal fruits cultivated in this section for profit. It is attracting attention as a health resort for people afflicted with asthma, weak lungs or nervous difficulties, many finding relief, if not perfect cure.

The directors are meeting with encouragement from every quarter. Farmers who have never shown anything at fairs before are manifesting a lively interest. It is no longer necessary to urge them to exhibit. On the contrary, voluntary applications for space are now made daily. President Jones says: "On the street fruit-growers from all quarters of the county come up to tell me that they will make exhibits. They all seem to realize that this is to be the most interesting and successful fair our county has ever given, and each wants to be represented. I have frequently been surprised at the amount of the citrus fruits that we have in the county; but I think our greatest surprise will arise when we see the amount, variety and beauty of the flowers which will be exhibited."

Robert Ames, of Saratoga district, will exhibit oranges and English walnuts; J. H. Greenleaf, oranges, lemons and limes; E. H. Merryweather, of Fresno county, ten boxes of oranges and two of lemons; S. B. Emerson, a fruit-grower of Calaveras valley (Santa Clara county), three boxes of raisins, claimed to be the finest grown last year in the State.

There will also be an exhibit of prunes grown by Mr. Atkins, of San Benito county; one of oranges and lemons from Stanislaus county; and several exhibits from Alameda county.

In order to make the display more effective, fruits of a kind will be arranged together; the oranges all being in one place, the lemons in another, and so on through the list of exhibits.

The hall is to be elaborately adorned with palm leaves, holly, ferns, and bamboo, the last mentioned not having been damaged by the frost as yet. Messrs. Moore, Kingsbury, Pomeroy and Rock will contribute evergreens for the decoration.

The Board of Directors have decided to offer an oil painting of flowers as a testimonial for the most artistic arrangement of natural flowers, and the following were appointed a Committee on Award: H. F. Keesling, Mrs. E. O. Smith, and Mrs. L. B. Ingalls.

The following ladies will compete for the floral testimonial: Mrs. H. S. Foote, Mrs. I. A. Wilcox, Mrs. C. E. Stevens, Mrs. J. Holland, Mrs. O. F. Alley, Mrs. Sara Trimble, Mrs. Ingalls, Miss Jennie Powell, Miss Alice Younger, Miss Emma Fiske, Miss Jennie Sanders, Mrs. Dora Crossett, Miss Parker, Mrs. L. J. Watkins, Mrs. G. W. Tarleton, and Mrs. T. O. Smith.

A literary and musical entertainment will be given every evening during the week, a brass band and other musical performers being in attendance. Dr. C. C. Stratton, president of the University of the Pacific, will deliver the opening address Monday evening, Feb. 7th. People who have heard the scholarly efforts of this talented speaker expect a rich treat. Miss Ida Benfey, teacher of elocution, will give a recitation and Miss Lena Voltz a vocal solo on the same evening.

Mrs. Arnirich, whose place is nine miles from San Jose, on the Los Gatos road, near the Lone Hill vineyard, has an orchard of Italian figs, pomegranates and oranges, besides half a dozen trees of the St. John bread-fruit.

The Entries,

Made since the last issue of the RURAL PRESS, are as follows:

San Jose—Mr. Lefranc, five boxes oranges and English walnuts. L. Kraft, two boxes oranges—he has 60 trees. A. S. Williams, dried fruits. T. C. Casey, three clusters oranges, four boxes oranges and persimmons. Capt. Jos. Aram, one box oranges, English walnuts and vegetables. E. W. Harrison, English walnuts and vegetables. L. Barnhisel, English walnuts. D. C. Vestal, English walnuts. Miss Tennant, pears, pomegranates, etc. A. C. Penniman, dried fruits. W. H. Wright, canned goods. Paul O. Burns, wines. Capt. J. C. Merithew, wines. S. F. Ayer, olives. J. H. Flickinger, canned goods. Dr. W. F. Gunkel, tomatoes and almonds.

Los Gatos—Dr. W. S. McMurtry, 25 boxes oranges, two boxes lemons and persimmons. D. D. Holland, eight boxes oranges, two boxes lemons. Mrs. F. L. Taylor, eight boxes oranges, one cluster and one large orange. Judge Tobin, two boxes oranges. Dr. J. J. Shaner, two boxes oranges, chestnuts and English walnuts. G. Knowles, one box oranges. Thos. Cox, one box oranges. Mrs. Smith, one box oranges. Judge Rankin, two boxes lemons. Jas. Higgins, four boxes oranges. Mrs. Webber, four boxes oranges. J. J. Groom, one box oranges, Mrs. Ditto, one box oranges and canned fruit. Thos. Gibson, oranges, green peas and beans. The Catholic Fathers, Wm. Morris, Supt., 30 boxes oranges, five boxes limes, from an orchard of 1600 orange and 50 lime trees. C. Kimble, one box oranges, J. H. Lynden, two boxes oranges. F. H. McCullough, two boxes oranges, one box lemons, from an orchard of 125 orange and four lime trees. C. Yocco, 50 boxes oranges, from 300 trees, three boxes lemons, three boxes limes, and one whole tree full of oranges. James F. Kennedy, oranges. A. E. Gish, oranges. L. F. Parker, one box oranges, two boxes lemons. Mrs. Webber, four boxes oranges.

Saratoga—J. Cunningham, four boxes oranges, one box lemons. S. W. Weed, six boxes oranges. Jas. McWilliams, two boxes oranges, one box lemons. Mrs. H. McCarthy, four boxes oranges from 50 trees. Geo. E. Pinder, 30 boxes oranges, five boxes lemons, from 100 orange and eight lime trees. W. R. Springer, six boxes oranges, one box lemons, from 30 orange and 25 lime trees. Capt. W. Warren, one box oranges. Dr. J. W. Handy, five boxes oranges, two boxes limes, from 50 orange and 25 lime trees. J. W. Fuller, 10 boxes oranges, from 100 trees. J. P. Bubb, one box oranges. Gubserville—Jacob Graves, 12 boxes oranges, one box lemons. Sylvester Graves, English walnuts, almonds, and chestnuts.

Milpitas—James Jones, one box oranges, one box lemons. Wm. H. Brundage, three boxes oranges, two boxes lemons.

Evergreen—J. A. Quimby, one box oranges, two boxes lemons.

Fresno county—Fresno Raisin and Fruit Packing Co., raisins.

Stanislaus county—Geo. A. Goodell, two boxes oranges.

Harrisburg, Alameda county—Henry Curtner, two boxes oranges, one box lemons, from 35 orange and four lemon trees.

Alameda and San Benito counties have made application for space in the hall for their county exhibits.

Intense interest in the coming Citrus Fair is being manifested by fruit-growers and others, not only in Santa Clara county, but in the other counties that are to exhibit. Evidence of such interest in the adjoining counties reaches San Jose through various sources. The prediction that our Citrus Fair will be the finest that this part of the State has ever seen, is freely made. A great many visitors are expected. The hotel accommodations are ample, and our people are hospitable. There is a general desire among our people to see a large number of visitors in attendance. H. M. H.

San Jose, February, 1887.



FRONT VIEW OF THE SAN JOSE HORTICULTURAL PAVILION.

Ohleyer's Anti-Debris Bill.

An Act to Prevent Injuries to Navigable Streams.

SECTION 1. Every person who, by the use of water under hydraulic pressure, shall place, deposit, dump, discharge or wash, or in any manner assist in placing, depositing, dumping, discharging or washing any tailings, boulders, cobblestones, gravel, sand, clay, earth, debris or refuse matter into any navigable stream, or into any fork, branch, affluent or tributary of any navigable stream, or into any place or situation on shore where the same shall be liable to be washed into navigable streams, or into any fork, branch, affluent or tributary thereof, either by storm or floods or otherwise; and every person who shall suffer or allow any other person to use any water supply, in whole or in part owned or controlled by him for any of the purposes aforesaid, is guilty of felony, and is punishable by a fine of not less than $100 nor more than $1000, or by imprisonment in the State Prison for not more than one year, or by both such fine and imprisonment.

SEC. 2. The jurisdiction of a violation of any provision of this Act is in any county, first, in which any act is done toward the commission of the offense; or second, into, out of, through, or along which the navigable streams flow which—or any fork, branch, affluent or tributary of which—is affected by the commission of such offense.

Horticultural Hall.

Our illustration of the new horticultural hall at San Jose is made from a photograph for which we are indebted to the courtesy of Loryea Bros., photographers of San Jose. The view represents merely the front end of the pavilion, and therefore does not convey an idea of its extension, fore and aft. It is one of the neatest and best pavilions we have seen, and when filled with San Jose products, arranged with San Jose taste and surrounded by San Jose beauty, it is simply charming. We know it because we have seen it in just that state.

AT the U. S. Land Office in Los Angeles the business for January embraced 28 cash entries, covering 2238½ acres; 3 desert land entries, 1269 acres; 5 final nome entries, 548½ acres; and 1 State selection of 40 acres. There were filed also 57 declaratory statements, 1 coal claim and 6 timber applications. One military bounty land warrant was located.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

J. N. LUND, Box 116, Oakland, Cal. Wyandottes, Langshans, L. Brahmas, P. Rocks, B. Leghorns, B. B. R. Game Bantams, T. Guineas, Hom'g Antwerp Pigeons.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

O. J. ALBEE, Santa Clara, has the finest fowls this season he has ever raised. Parties needing new blood will do well to write him before buying. Also Scotch Collie Pups. Prices to suit the times.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

H. J. GODFREY, San Leandro, Cal., first-class P. Rocks and Wyandotte eggs, $2 per setting; no circulars

PABLO POULTRY YARDS, San Diego, Cal. Large establishment. Send for catalogue.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

T. D. MORRIS, Sonoma, Cal. Toulouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

HORSES AND CATTLE.

LEONARD BROS., Mt. Leonard, Mo., importers and breeders of Galloway, Aberdeen-Angus and Shorthorn cattle.

HYDE & MOORE, Visalia, importers and breeders of Shorthorn cattle. Young stock for sale.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

Estate of M. E. BRADLEY, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D. HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

E. J. TURNER, Hollister, Breeder of Percheron-Norman registered Horses and Roadsters.

E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

THE BEST HERD OF JERSEYS, all A. J. C. C. registered, is owned by Henry Pierce, San Francisco.

P. H. MURPHY, Brighton, Perkins P. O., breeder of Shorthorn Durhams, and Poland-China Hogs.

ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

STINSON & MARSH, Dayton, Nevada. Registered Shorthorns of choice breeding strains.

T. P. A. WILLIAMS, Columbia, Boone Co., Mo., breeder and importer of Thoroughbred Herefords.

SHEEP AND GOATS.

E. W. WOOLSEY & SON, Fulton, Sonoma Co., imp'rs & b'ders Thoroughbred Merino, & Jersey Cattle.

EASTON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine; high graded rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

T. H. HARLAN, Williams, Colusa Co., breeder pure blooded Angora goats, & Merinos; young stock for sale.

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

SWINE.

JOHN RIDER, Sacramento, Cal. Breeder of Thoroughbred Berkshire Swine. My stock of Hogs are all recorded in the American Berkshire Record.

W. D. RUCKER, Santa Clara, breeder of registered improved Poland-China Swine. Pigs for sale.

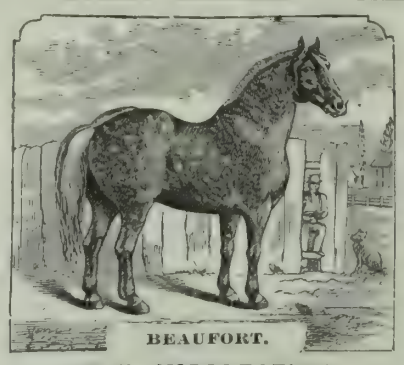
I. L. DICKINSON, Lone Oak Farm, Senora, Tuolumne Co., Cal., breeder of thoroughbred Essex Hogs. Pigs now ready for sale. Prices reasonable.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

REGISTERED BERKSHIRES, BLACK JACK, BESS and REDWOOD; imported strains; pairs and trios, not akin, at farmers' prices. Young boars, low. F. H. Burke, 401 Montgomery St. S.F.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

HORSES AND CATTLE.



BEAUFORT.

NEW IMPORTATION

—OF—

NORMAN STALLIONS.

Theodore Skillman has just arrived from France with the choicest importation of Norman Stallions that has ever reached the Pacific Coast. Mr. Skillman has selected these horses from the best in France, with a view to the improvement of draft horses on this Coast. They are young and sure to suit the tastes of intending purchasers as regards color, etc., a number being coal-black. He has also on hand some Imported French Coach Stallions. These horses are now very popular in the East and have long been the favorite carriage horses of France. Their merits speak for themselves. Come and inspect this rare collection of horses and be convinced that they are the best ever seen on this Coast.

☞ Catalogue for 1887 sent free on application.

THEODORE SKILLMAN,
Petaluma, Cal.

HOLSTEIN BULLS FOR SALE.

Four registered pure-bred Holste'n Bulls. Sired by the well-known bull, Nero, 2209, H. H. B. Will sell cheap. For further particulars apply to

H. P. MOHR,
Mt. Eden, Alameda Co., Cal,

RED POLLED CATTLE.

For Milk, Butter and Beef; of a beautiful red color; no horns for mischief; just the Cattle for the Farm, the Dairy and the Family.

Imported, bred and for sale by

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Send for Catalogue. Iowa City, Iowa.

BADEN FARM HERD

Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to

ROBERT ASHBURNER,
Baden Station, - San Mateo Co., Cal.

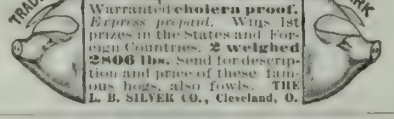


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Registered and Thoroughbred. **POLAND-CHINA HERD**

My herd consists of the best strains that can be found. Stock all recorded in A. P. C. R. I have a fine lot of spring, summer and fall pigs, also a few choice yearling sows, for sale. Prices to suit the times.

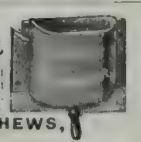
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This NEW article is approved and approved by all progressive Farmers and Stock Raisers. The calf **sucks** its food **slowly,** in a *perfectly natural way,* thriving as well as when fed on its own mother Circulars free. **SMALL & MATTHEWS,**

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San Francisco, Cal., Oct. 22, 1886. **PETER SAXE & SON, Lick House, S. F.**

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Farm located at French Camp, San Joaquin Co L. H. CUTTING, P. O Box 7, Stockton, Cal.

☞ I exhibited 13 varieties at the last Poultry Show at San Francisco, winning 8 first premiums, 3 seconds, 4 thirds and 3 specials, which is the best record of any exhibitor showing as many varieties.



Headquarters for all Varieties of FANCY CHICKENS,

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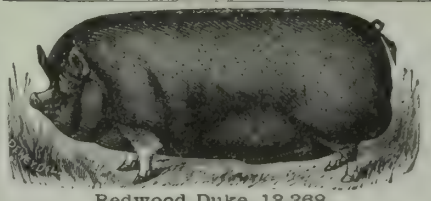
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HIGH-CLASS POULTRY.

Clean sweep on Plymouth Rock Chicks at Great California Poultry Show at San Francisco, Jan. 11th to 16th, 1886. The Best is the Cheapest. Illustrated Catalogue sent free on application; worth $1 to any breeder of poultry. Send me your name on a Postal Card; 5000 copies of fine Illustrated Catalogue for free distribution.



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Prize winners at all the Fairs in California, and entire list of sweepstake premiums at State Fair, 1886. Importations made direct from England every year from the most noted breeders, selected from the best blood and most fashionable families of Dishfaced Berkshires, regardless of cost, and all recorded in English and American Berkshire records. Young pigs from these importations, male and female, from different families, for sale at reasonable prices, and every pig guaranteed. Address, ANDREW SMITH, Redwood City, or 218 California St., San Francisco.

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STOP! THINK! INVESTIGATE! LAKESIDE STOCK FARM HAS



Over 100 cows in the Advanced Registry

The only Cow that has given 26,021 lbs. 2 ozs. of milk in a year
The only four-year-old that has given 23,602 lbs. 10 ozs. in a year.
The only two-year-old that has given 18,484 lbs. 13 ozs. in a year
The only herd of mature cows that has averaged 17,166 lbs. 1 oz. in a year.
The only herd of two-year-olds that has averaged 12,465 lbs. 7 ozs. in a year.
The only two-year-old Holstein-Friesian that has made 21 lbs. 10½ ozs. of butter in a week.
Thirty-one cows in this herd have averaged 20 lbs. 1 oz. of butter in a week
Fourteen cows in this herd have averaged 22 lbs. 1 oz. of butter in a week.

Also a fine stud of Clydesda'e Stallions, mares and fillies, and choice standard-bred Hambletonian stallions. Send for Catalogue giving full records and pedigrees. In writing, always mention RURAL PRESS.

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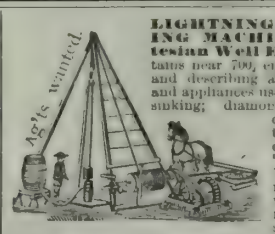
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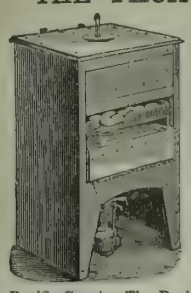
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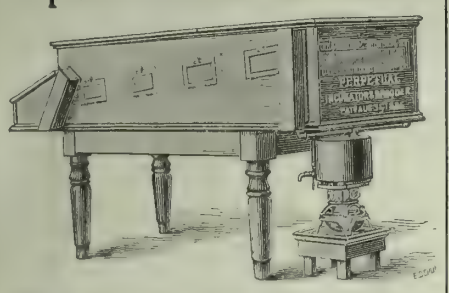
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Awarded the Gold Medal at the State Fair, Sacramento, and at the Mechanics' Institute Fair of 1884 1885 and 1886, over all competitors as the **best** machine made. It will hatch any kind of Eggs better than a Hen.

Pacific Coast Agency for the celebrated Silver Finish Galvanized Wire Netting, The Wilson Bone and Shell Mill, and the American Meat Chopper. Poultry appliances of every kind and every variety of Land and Water Fowl can be found at the Oakland Poultry Yards, the oldest and largest establishment on the Pacific Coast. The Pacific Coast Poulterers' Hand Book and Guide; price, 40 cents. Send 2-cent stamp for illustrated 60-page catalogue to the PACIFIC INCUBATOR CO., 1317 Castro St., Oakland, Cal

THE Perpetual Incubator and Brooder.



The most successful "business" Incubator ever invented.

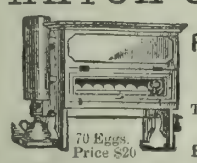
The only Incubator in which eggs can be introduced daily and hatch successfully.

Requires no heat "regulator." The heat is scientifically graduated to suit the different periods of incubation.

Three sizes made, viz.: 1, 2 and 3 dozen eggs per day. Send for circular to

JOHN WORSWICK,
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HATCH CHICKENS



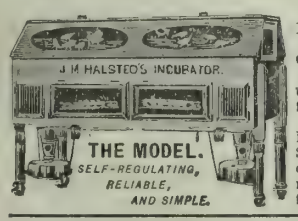
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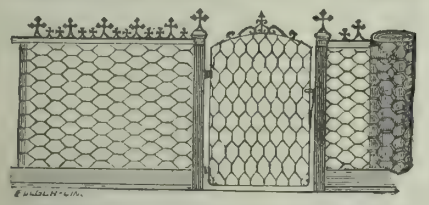
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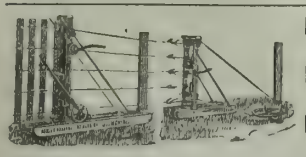
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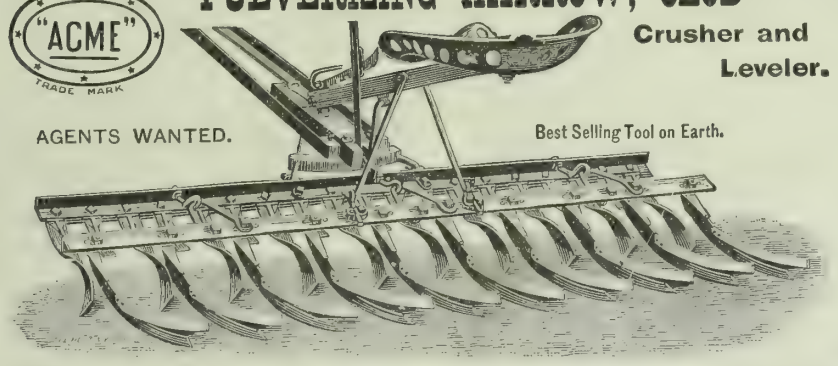
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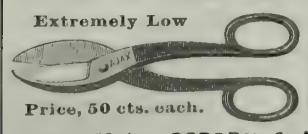
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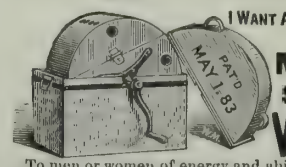
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 2, 1887.

Continued dry weather is creating more uneasiness among dealers and business men in general. This uneasy feeling is beginning to make itself felt in various ways, and unless heavy rains are soon had, it will be more marked. The European market for wheat has been more or less depressed, but with no marked changes in prices. The following is to-day's cable:

LONDON, Feb. 1.—Wheat cargoes on passage, and for shipment, slow. Off coast, slow. Four arrivals, 1 sale, 5 waiting. Cal., off coast (500 lbs.), 36s 9d. Cal., just shipped, or promptly to be shipped, 38s 3d. Cal., nearly due, 37s. No. 2 spring, off coast (480 lbs), 32s. Red Winter, off coast (480 lbs), 35s. Red Winter, for prompt shipment, 32s. Red Winter, for present and following months, 32s. Red Winter, fair average, average price ₱ ctl, 7s 4d. Red American Spring, Nos. 3 and 2, 7s 3½d ₱ ctl. Wheat and flour in Paris, rather easier. English and French country markets firm. Weather in England wet but mild. Stock of wheat in Liverpool, 440,000@460,000 qrs; do flour, 150,000@160,000 bbls.

Foreign Review.

LONDON, Jan. 31.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: The deliveries of English wheat continue to be in bad condition, making values generally lower. Sound wheat, however, maintained its rates. The usual comparison of the sales of English wheat is not given this week. Flour is cheaper, owing to the excessive supply of Foreign brands. The receipts of breadstuffs at London, during the present week, equaled 108,385 quarters of wheat, mostly American. Corn is cheap. Oats have declined 3d. Linseed has gained 6d. Seven cargoes of wheat arrived; five were sold, eight were withdrawn, and three remained. At to-day's market there was no demand for wheat. Foreign was 6d lower. English, if in bad condition, was unsalable. Flour was in large supply, and 6d lower. Corn was quiet. Barleys were weaker. Oats were dull, and 6d cheaper. Linseed was firm, and advanced 6d.

Eastern Wheat Market.

NEW YORK, Jan. 30.—Wheat for prompt delivery has ruled very dull the past week, shippers being practically idle on account of the difficulty of moving the stuff. In options, trading has been moderate. Spot closed ½c lower, options steady, as follows: January and February, 91¾c; March, 93c; April, 94¼c; May, 95⅝c; June, 96¼c. July, 97⅝c.

New York Hop Market.

NEW YORK, Jan. 29.—Desirable goods are held with some showing of firmness and meet with a fair demand, but interior stock is difficult to move at any price. Pacific Coast, crop 1886, prime to choice, 23@25c; do fair to good, 18@22c; do, crop 1885, good to prime, 8@10c.

Eastern Wool Markets.

BOSTON, Jan. 29.—The tone of the wool market has been further strengthened by active opening of public auction sales in London Tuesday last. Firm holders have become firmer, and as there have been no really weak holders, the market is in better position than ever before. There has been an active demand during the week, and the sales of all kinds amount to 3,834,100 pounds. Prices are no higher, (unless we except some of those grades which are in short supply, and wanted), but on all grades there is a very firm feeling. A number of the largest mills have been represented among the buyers, and from this time on we anticipate a good demand and a steady market. California wool has been more active. The sales of spring wool have been 354,000 lbs, including a round lot of 16,000 lbs, at 20c per lb. Fall California wool sold to the extent of 205,000 lbs, all of which was reported on private terms, but is understood to be in the range of our quotations. The receipts of the week have been 4778 bales domestic, and 741 bales foreign.

NEW YORK, Jan. 30.—There has been a good tone to the wool market, and business was fair. Advices from Europe, of improvement at the auction sales, had the desired effect of bringing manufacturers to the views of holders. Although no advance was asked, buyers willingly paid more than they would have paid several weeks ago had the holders chosen to take their bids. The sales of the week included 50 bags spring California at 22½c; 150 bags scoured California at 48c; 25,000 lbs fall California at 14c. The Boston market is more active, and sales of domestic larger than for over three months. The feature of the week has been the movement of California spring, which has been taken in some large round lots by manufacturers, thus reducing the supply of choice wools of this description. The best of these wools, some time ago, were held at 28c. but transactions last week were from 25 to 26c. These wools have not only been taken by cassimere manufacturers, but also by mills making soft dress goods, which command a ready sale. Among the sales were 280,500 pounds of Territory at 21@26½c, and 783,000 pounds of California spring and Oregon at 24@27c. The Philadelphia market is less active. There is good inquiry for low and quarter-blood and medium, which are scarce, and in some cases held above the views of buyers. Fine fleeces of Colorado and Territorial wools are in relatively fair supply, but are comparatively quiet. Among the sales were 28,000 pounds of Nevada fine at 18½c, and 12,000 pounds of Territory fine at 22c.

Dried and Canned Fruit at the East.

NEW YORK, Jan. 30.—There is a fair jobbing demand for Valencia raisins, which command full former prices, but loose Malaga, and California and London layers, here, received very little attention. Valencia, off stock, 5¾@6c; layer, 8@8¼c; two-crown loose Muscatel, $1.35@1.40; California loose, quoted at $1.55@1.90; do London layers, $1.70@2.

Prunes—The supply of Turkish has further increased, but as the bulk is in the hands of the syndicate, the market has not been unfavorably influenced. Several additional lots, aggregating 400 casks, have been bought up, part at a trifle below 6c; but 6c is the market price, and at the close it was doubted whether any lots could be even obtained at that figure, either on spot or to arrive. The syndicate is not offering any. The advance in the price is bringing to the fore cheaper substitutes, and methods are being adopted, by some sellers, to place them before the public as the genuine article. We refer particularly to the packing of Bohemian casks, from which Turkish prunes have been emptied. These goods are offered at a figure one-quarter to one-half cent below the price for Turkish, and some buyers are led into the belief that they are purchasing the latter. Empty Turkish casks, however, are very scarce, and are held at an extreme price—a figure equivalent to about one-quarter cent per pound. French prunes are in brisk demand, with sales of 4000 boxes, at 8⅛@8¼c. Currants steady at 6⅞c. Citron is selling at 16½@16⅝c. Dates—Persian are in fair demand at 5@5½c; Fard, 6@7½c. Figs are in fair jobbing request at 6½@12c.

Canned goods—The interest is still centered chiefly upon tomatoes for immediate delivery; $1.05 is the inside quotation named, while some holders refuse less than $1.10. Sales of next season's pack, to the extent of 25,000 cases, have been made at 92½c@$1. California canned peaches, $2.50@3.25; pears, $2.-75; plums, $2.50; grapes, $2.55; apricots, $2.15.

California Products in New York.

NEW YORK, Jan. 30.—Seeds—California yellow mustard, 3¾@4½c. Honey, extracted, 5½c.

California Fruit in Chicago.

CHICAGO, Jan. 30.—There is little more trade in dried fruits among jobbers reported, and there seems to be a little more doing in the way of filling outside orders. On the open market no special improvement of demand appears as yet, but if jobbers are able to sell and reduce their stocks, it will only be a short time before they will be required to buy. There are no consignments of lots on sale, except of apples. California dried fruits and raisins were quoted a shade easier, while other kinds remain about steady. Moderate sales are being made. Prunes, French, per pound, 8½@11½c; plums, pitted, 11@13c; peaches, halves, 12@14c; peaches, halves, pared, 20@21c; figs, 6@8c; nectarines, 9@10c; pears, 8@12c per pound. Raisins—London layers, 20-pound boxes, per box, $1.45@1.50; raisins, loose, Muscatel, per box, $1.30@1.35. Oranges—There was a fair local demand and some outside trade. The supply, however, is liberal, there being a good supply of Floridas and Foreign, and California oranges are also coming on the market. Prices are reasonable, and should insure a good trade. A street circular quotes the following prices: California bright, $3@3.50; Navel oranges, $5@6.

Local Markets.

BARLEY—The market has ruled steady throughout the week, with holders strong in their views, owing to the dry weather and an increasing consumption. There is more inquiry for brewing, but so far as can be learned no sales have been made. On Call transactions were large with fair fluctuations reported. To-day's sales were as follows:

Morning Session: Buyer season—800 tons. $1.18¾; 1300, $1.18½; 400, $1.18⅜; 800, $1.18¼; 100, $1.18⅛. Seller season—100 tons, $1.11 ₱ ctl. Afternoon Session: Buyer season—1200 tons, $1.18½; 100, $1.18⅜; 200, $1.18¾ ₱ ctl.

CHEESE—Under continued light supplies and a good demand, the market rules exceedingly strong.

BUTTER—The market rules weak and in buyer's favor at low quotations, owing to excessive supplies of pickled. Another carload of fresh rolls was shipped to the East the past week.

EGGS—The market rules weak at another decline. It is claimed that the consumption is increasing, and receipts, consequently, cleaning up better.

WHEAT—The market for sample parcels appears to be at a deadlock. Sellers are out of market, except at extreme high prices, while shippers claim they cannot pay even our quotations. Very few sales were made the past week, but those made were at quotations. On Call transactions were heavy with fluctuations varying from one to two and one-half cents per cental. To-day's sales were as follows:

Morning Session: Spot, season's storage paid—500 tons, $1.58¾. Buyer season—600 tons, $1.66¾; 2600, $1.66⅞; 800, $1.67; 300, $1.67½. Afternoon Session: Buyer season—800 tons, $1.67¼; 4500, $1.67⅜ ₱ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The exports of wheat and wheat flour from the United States, from July to January, were as follows:

	Wheat, bushels.	Flour, bbls.
1887	51,585,504	5,551,444
1886	20,529,982	3 953,618
Increase	31,035,582	1,597,826

By reducing flour to wheat it will be seen that for the six months of the present season the exports are all of 36,829,060 bushels in excess of the season of 1885-86. On January 16, 1886, the visible supply of wheat east of the Rocky mountains was 57,108,-286 bushels, against 62,825,506 the like date this year. The above shows an increase in the visible supply of only 5,717,220 bushels this year, notwithstanding farmers' deliveries extended into a later date in 1886 than in 1885, which, with all else equal, ought to show an increase of not less than 30,000,-000 bushels. In the spring of 1886, farmers' deliveries were quite free, but this year they will be light, owing to a less supply in farmers' granaries. Crop reports from the West continue virtually unchanged, but, as usual, they do not attract much attention until well into March, when deep interest is taken in them. In this State our advices continue favorable for the plant on irrigated and early sown land, but on late sown land, where seeded, it is still unfavorable. The local market ruled dull up to Saturday, when a stronger tone set in, resulting in better bids being made, but owing to holders' advanced views trading was confined to parcels put on the market so as to save expense. Continued dry weather, with stocks well concentrated, are the influences which, at present, govern our market. On Monday prices shaded off in the morning—some for futures, but closed stronger in the afternoon, resulting in an improvement on Tuesday. Owing to the light engaged tonnage, the sample market is quiet. A. J. Gove, Produce Exchange Inspector of Grain, reports stocks of grain in city warehouses February 1, as follows:

	Wheat.	Barley.	Oats.	Corn.	Bran.
Feb. 1	11,312	19,150	1794	1362	391
Jan. 1	15,493	21,275	1830	1494	950

The stock of wheat in this city and Port Costa on the first of the present month was 83,312 tons, against 87,438 tons on January 1 last. Farming advices report the plant, when up, as looking well, but without rains soon it will not be sufficiently strong, except in a few favorable sections, to withstand a day or two of the north winds which blow later on in the season.

Barley ruled, the past week, fairly steady for sample parcels, with large holders firm in their advanced views, owing to continued dry weather. On Call, in options, large trading characterized the week, with fair fluctuations in prices. Crop advices continue the same as reported in last week's issue.

California corn, of choice grades, has ruled steady, but poorer grades were dull and in buyers' favor. Heavy receipts from the West are against our market. Nebraska corn, to arrive, is offered at 97½c to $1.02½c per cental, by the carload.

Western oats continue to press the market at low prices compared with choice coast oats. Our market is lightly stocked with choice, and as the demand is steady, full prices rule for them, but fair oats are in liberal supply and favor buyers.

Rye is scarce and very hard to get, even at advanced prices.

Buckwheat is slow, with stocks light.

Feedstuffs.

Owing to a large increased consumption and continued dry weather, hay, particularly choice to extra choice grades, has ruled exceedingly strong with an advance obtainable on last week's prices. Choice hay sold at over $14.50 afloat, and also in carload parcels. Other grades sold proportionately lower.

Middlings are selling at a slight advance. Bran is stiff under a good consumptive demand. Oilcake meal and ground barley hold to strong prices.

Fruits.

Under freer receipts of oranges, prices are easier, yet dealers only make concessions when compelled, and buyers only pay asking prices to meet urgent wants. Shipments to the northern coast continue free.

Limes and lemons are slow and decidedly in buyer's favor.

Apples are in lighter supply, yet it is difficult to get an advance on current quotations.

Dried fruits are quiet but strong under firm holding and light stocks. Choice, well-packed dried fruits always command an advance on quotations. Eastern advices continue to report a strong market.

Raisins, unless very choice and well packed, are slow and sell for less money. The stock in this city is light, but then the demand is also light.

Live-Stock.

Choice well-conditioned beef cattle are in lighter supply, causing a stiffer feeling to rule; but fair cattle continue to offer liberally, at current quotations. Mutton sheep have, apparently, a firmer tone. Veal and spring lambs are in good request. Hogs are slower, but, as yet, no lower quotations are made public. In milch cows and horses, there is nothing new to report.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 3¼ to 3¾c for heavy and medium; hard dressed, 5½ to 7c per lb; light, 3 to 3¼c; dressed, 5 to 6c; soft hogs, live, 2 to 2¾c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Potatoes ruled steady and strong throughout the week, under moderate receipts and a fair inquiry. New potatoes are coming in more freely.

Onions continue strong for choice grades, with even cut doing slightly better.

Cabbages and also cauliflowers have been in good demand for shipping, with the latter selling higher.

The southern counties continue to send us liberal supplies of garden truck, but not in sufficient quantities to materially shade off prices.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	204,696	151,182
In port, disengaged	88,957	105,151
In port, engaged	19,119	46,642
Totals	312,772	302,975

The above gives a carrying capacity as follows: 1887, 500,415 short tons; 1886, 484,760 short tons; increase over last year, 15,655.

There was not a vessel taken the past week for wheat loading, owing to the asking rates being above shippers' views.

Poultry has ruled steady throughout the week. Dressed turkeys from Omaha are sent to this market.

In hops there is more inquiry, with no sales reported, owing to buyers' views, as yet, being too low.

Wool is stagnant, but dealers express confidence in better prices for the spring clip.

Tallow is selling at a slight advance, owing to lessened supplies.

Honey is quiet, but owing to the prospects for this year's crop being reported below an average, the tone of the market is strong.

LIVE-STOCK MERCHANTS.—We have received a circular which announces the formation of a firm of live-stock commission merchants at Denver, under the name Geo. L. Goulding & Co. Many of our readers who attended last fall's fairs will remember Mr. Goulding as having charge of the fine herd of Galloways sent out here by Leonard Bros., of Missouri. Mr. Goulding made many friends during his sojourn in this State, and we doubt not he would be pleased to see them if they visit Denver.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 2, 1887.

BEANS AND PEAS.			
Bayo, ctl	1 40	@	1 55
Butter	1 25	@	1 55
Pea	1 60	@	1 70
Red	1 25	@	1 40
Pink	1 25	@	1 40
Large White	1 60	@	—
Small White	1 60	@	1 70
Lima	2 00	@	2 45
Fid Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER			
Cal. fresh roll, lb	15	@	17½
do Fancy br'nds	17½	@	21
Pickle roll	14	@	16
Firkin, new	15	@	16
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	14	@	17½
Eastern style	15	@	17
EGGS.			
Cal., ranch, doz	22½	@	25
do, store	20	@	22½
Ducks	—	@	—
Oregon	—	@	—
Eastern	—	@	—
Utah	—	@	—
FEED			
Bran, ton	15 50	@	16 50
Cornmeal	26 00	@	27 00
Gr'd Barley ton	25 00	@	26 00
Hay	9 00	@	14 50
Middlings	22 00	@	23 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR			
Extra, City Mills	4 75	@	5 25
do Co'ntry Mills	4 50	@	5 00
Superfine	3 50	@	4 25
GRAIN, ETC.			
Barley, feed, ctl	1 12½	@	1 20
do Brewing	1 15	@	1 30
Chevalier	1 45	@	1 60
do Coast	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White	1 05	@	1 10
Yellow	1 02½	@	1 10
Small Round	1 05	@	1 15
Nebraska	97½	@	1 05
Oats, new	—	@	—
Choice feed	1 55	@	1 65
do good	1 40	@	1 50
do fair	1 30	@	1 37½
do black	1 40	@	1 55
do Oregon	1 30	@	1 60
Rye	1 10	@	1 25
Wheat milling.			
Gilt edged	1 65	@	1 67½
do choice	1 60	@	—
do fair to good	1 55	@	—
Shipping choice	1 62½	@	—
do good	1 57½	@	1 60
do fair	1 50	@	1 55
HIDES.			
Dry	—	@	14
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb,	9	@	12
Honey in comb, fancy	12	@	13½
Extracted, light	4	@	4½
do dark	3½	@	4
HOPS.			
Oregon	20	@	25
California	18	@	25
ONIONS.			
Pickling	—	@	—
Silverskin,	1 00	@	1 90
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, hd shl	6	@	9
Soft shell	15	@	19
Brazil	10	@	11
Pecans	9	@	11
Peanuts	4½	@	—
Filberts	10	@	11
POTATOES.			
Burbank	1 20	@	1 70
Early Rose	1 00	@	1 15
Cuffey Cove	1 10	@	1 45
Jersey Blues	1 40	@	1 60
Petaluma	—	@	—
Tomales	1 00	@	1 40
River reds	1 00	@	1 25
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 20	@	1 50
Peerless	1 25	@	1 75
Salt Lake	—	@	—
New Potatoes	2	@	3
POULTRY AND GAME			
Hens, doz	5 50	@	7 00
Roosters	5 50	@	7 00
Broilers	5 00	@	6 00
Ducks, tame	5 00	@	7 00
do Mallard	2 00	@	3 00
do Sprig	1 00	@	1 50
Geese, pair	1 00	@	2 00
do Goslings	—	@	—
Wild Gray, doz	3 00	@	—
Turkeys, lb	13	@	14
do Dressed	15	@	16
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	75	@	85
Quail	90	@	1 00
Rabbits	1 00	@	1 25
Hare	1 50	@	2 00
Venison	8	@	10
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9
Medium	8½	@	9
Light	10½	@	11½
Extra Light	12	@	12½
Lard	9	@	9½
Cal. Smoked Beef	11½	@	12½
Hams, Cal	10	@	12½
do Eastern	13	@	14
SEEDS.			
Alfalfa	9	@	10
Canary	3½	@	4
Clover red	12	@	13
White	17	@	18
Cotton	20	@	—
Flaxseed	2½	@	2½
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	3	@	3½
Brown	2 25	@	2 75
Rape	1	@	1½
Ky. Blue Grass	11	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	3	@	5
Refined	8	@	9
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	22	@	25
Sact'o valley	17	@	20
Free Mountain	17	@	20
N'hern defective	—	@	—
S Joaquin short	14	@	18
do long	—	@	—
Cazaa & Eel'R	—	@	—
Oregon Eastern	17	@	22
do valley	23	@	25
Southern Coast	13	@	17
FALL—1886			
Southern, free	17	@	20
do defective	12½	@	19
Northern, free	20	@	23
do defective	15	@	20
Middle free	18	@	21
do defective	15	@	18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 2, 1887.

Apples, bx com	75	@	1 25
do choice	1 75	@	2 25
Bananas, bunch	1 50	@	2 50
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries blk	—	@	—
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Figs, bx	—	@	—
Grapes	1 00	@	3 25
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	4 50	@	6
do Cal. box	50	@	1 00
Lemons, Cal., bx	1 00	@	1 50
do Sicily, box	2 00	@	2 50
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 50	@	2 00
do Choice	2 25	@	3 50
do Navels	3 00	@	5 00
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	1 00	@	1 50
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Plums lb	—	@	—
Prunes bx	—	@	—
do Egg	—	@	—
Quinces bx	—	@	—
Raspberries ch	—	@	—
Strawberries ch	5 00	@	6 00
Watermelons	100 —	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	6½
do evaporated	11	@	12½
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	9	@	11
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	8	@	10
do French	10	@	13
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 05	@	—
Imperial Cabinet, fancy	1 90	@	—
Crown London Layers, fcy	1 70	@	—
do Loose Muscatels, fancy	1 60	@	—
do Loose Muscatels	1 50	@	—
Cal. Valencias	1 50	@	—
do Layers	1 50	@	—
do Sultanas	1 50	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus ₱ lb	35	@	40
do cultivated	—	@	—
Okra, dry, lb	10	@	12½
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	15	@	20
Pumpkins pr ton	12 00	@	15 00
Squash, Marrow			
fat, 100	7 00	@	12 00
do Summer bx	25	@	40
String beans lb	—	@	—
Tomatoes box	1 25	@	1 50
Turnips ctl	75	@	1 00
Beets, sk	1 00	@	—
Cabbage, 100 lbs	90	@	1 25
Carrots, sk	25	@	35
Cauliflower, doz	—	@	—
Eggplant, box	—	@	—
Garlic, lb new	—	@	—
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, lb	7½	@	12½
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, bx	—	@	—

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE.	Portland.				Red Bluff.				Sacramento.				S. Francisco.				Los Angeles.				San Diego.			
Jan. 27-Feb. 2.	Rain.....	Temp.....	Wind.....	Weather..	Rain.....	Temp.....	Wind.....	Weather..	Rain.....	Temp.....	Wind.....	Weather..	Rain.....	Temp.....	Wind.....	Weather..	Rain.....	Temp.....	Wind.....	Weather..	Rain.....	Temp.....	Wind.....	Weather..
Thursday.....	.04	39	S	Cy.	.02	46	N	Cl.	.00	49	Nw	Cl.	.03	51	Nw	Cl.	.00	60	SE	Cl	.00	60	SW	Fr.
Friday.....	.44	45	S	Cy.	.00	49	N	Cl.	.00	49	Nw	Cl	.00	51	NE	Cl	.00	64	W	Cl.	.00	60	Nw	Cl.
Saturday.....	.77	48	S	LR.	.00	53	W	Cy.	.00	51	Nw	Fr.	.00	54	N	Cl	.00	67	SE	Cl.	.00	61	Nw	Fr.
Sunday.....	1.39	44	W	Cy	.00	53	Cm	Cy.	.00	54	SE	Cl.	.00	52	SE	Cl.	.00	72	W	Cl.	.00	61	Nw	Fr.
Monday.....	.16	38	S	Cy.	.00	51	N	Cl.	.00	47	SE	Cl.	.00	50	N	Cy.	.00	61	S	Cl.	.00	61	SW	Cy.
Tuesday.....	.43	31	Nw	Cy.	.00	53	N	Cy.	.00	54	SW	Fr.	.18	50	W	Cy.	.00	58	S	Cy.	*.—	59	SW	Cy.
Wednesday...	.13	21	E	LS.	'.—	46	S	Fr.	.00	50	SW	Cl.	.04	50	NE	Fr.	'.—	58	S	Cy.	.03	56	Nw	Fr.
Total.....	3.36				02				.00				.25				*.—				.03			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING JANUARY 25, 1887.

356,623.—ROLLER MILL—Geo. Cottrell, S. F.

356,683.—HARNESS PAD—W. R. Empey, San Jose, Cal.

356,582.—PORTABLE BATH-TUB—S. D. Freeman, Fort Thomas, A. T.

356,631.—CULTIVATOR—P. Frichette, Sheridan, Cal.

356,590.—SEWING MACHINE—Chas. Kohler, Oakland, Cal.

356,655.—HARVESTER—X. H. Martinent, Fish Lake Valley, Nev.

356,498.—ANIMAL EXTERMINATOR—J. B. Payne, Blanco, Cal.

356,566.—COMBINED OIL-CAN, WRENCH, ETC., FOR BICYCLES—D. C. Wilgus, Los Angeles, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

INSECTICIDE.—We have heard a good deal about the insecticide prepared by the Arctic Oil Works, of this city, and from all accounts believe it to be a very valuable article for destroying scale, plant lice, and other bugs, troublesome to those who would grow fruits or flowers. The formula was decided upon after careful analysis and practical experiments, so as to get the fullest strength without injury to vegetation, and to give it a form readily reduced to complete solution by the fruit-grower or gardener. The advertisement in another column gives other information about it. It will be found very satisfactory as a summer wash, and will do good work on soft shell scales, applied at any season of the year.

A HANDSOME PUBLICATION.—Ben C. Truman has published a very handsome illustrated pamphlet of 100 pages, entitled "From the Crescent City to the Golden Gate via the Sunset Route of the S. P. R. R." Major Truman has done much to make California more widely known by his writings, and we think his latest is his best work, both in text and illustration. The latter are so fine that we shall reproduce some of them in our columns. On the first page of this issue is one of the balcony at Del Monte, which well presents some of the outdoor charms of that popular resort at Monterey.

A UNIQUE DIRECTORY.—Last week's *Mercury* has a horticultural description of the 60 odd school districts of Santa Clara county in alphabetical order, giving their situation, character of soils, various fruit-growing statistics, and names of those engaged in the business in each locality. Of the Midway school district, in which John Rock has his famous nursery, it is remarked: "The soil is of sediment and adobe and finely watered by artesian wells. It has great capacity for strawberries and other small fruits."

WHEELER'S CARBON BISULPHIDE.—We have received a copy of a small pamphlet, by J. H. Wheeler, manufacturer of carbon bisulphide, making a number of interesting statements about ground squirrels, their destructiveness and fecundity, and alluding to the efficacy of bisulphide as a destroyer of these pests and gophers. It is an advertising pamphlet and yet contains much valuable information. Copies can be had by addressing Mr. Wheeler at 204 Montgomery street, S. F.

WATERPROOF MUSLIN.—We have received samples of the "waterproof plant bed muslin," advertised in another column by the United States Waterproofing Fiber Co., 56 South St., New York. It strikes us that it will be found of great value to our plant propagators who need partial protection for their propagating beds. Samples can be obtained by writing to the company.

COHASSET POULTRY YARDS.—We have received a copy of a neat letter sheet and circular used by C. N. Cousens, proprietor of these poultry yards, located at 1625 Webster street, S. F. Mr. Cousens' business address is 125 Geary street, S. F. He makes a specialty of Plymouth Rocks, Brown Leghorns and Light Brahmas.

New Subscription Terms.

Our recent new terms for inducing payment of subscriptions in advance are meeting with favor in all quarters. New subscribers are coming in and old patrons are again entering their names.

We are confident of greatly increasing our large list of subscribers within the next few months.

A few subscribers have complained of paying at the rate of $3.50 when fully one year in arrears. To induce all such to settle up, we will, *during the next 30 days*, give all such the privilege of paying all back dues at the rate of $3.25 per annum.

Jan. 22, 1887.

THEO. SKILLMAN, of the Magnolia Stock Farm, Petaluma, aided by the *Argus* printers, has issued a catalogue of the Norman and coach horses imported by him from France during the past two years. It is embellished with portraits of a dozen of these noble creatures, and may be had free for the asking.

THE *Overland* for February reaches our table full-freighted with original articles of interest and importance to Pacific Coast readers. The publisher's department well illustrates the enterprising progress of the city and county of Fresno.

C. B. TURRILL has accepted his appointment as special commissioner from California to the American Exposition, which is to be held in London next May.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price $1).....$0.25
2.—World's Cyclopedia, 794 pages, 1250 illustrations; (exceedingly valuable).....50
3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt.....50
4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated.....25
5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations.....05
6.—To NEW SUBSCRIBERS, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
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10.—March of Empire, by Mallie Stafford.....25
11.—Life Among the Apaches, 322 pages, stiff cloth .25
12.—$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application .25
14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.) .25
15.—European Vines Described, 63 pages.....05
19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable.....50
23.—Architecture Simplified, 60 pages.....15
24.—Mother Bickerdyke's Life with the Army; patriotic and ably written; 166 pp., cloth, $1.00.....50
25.—Ropp's Easy Calculator, cloth, 80 pp.....25
26.—How to Tell the Age of a Horse.....05
27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, $3).....1.00
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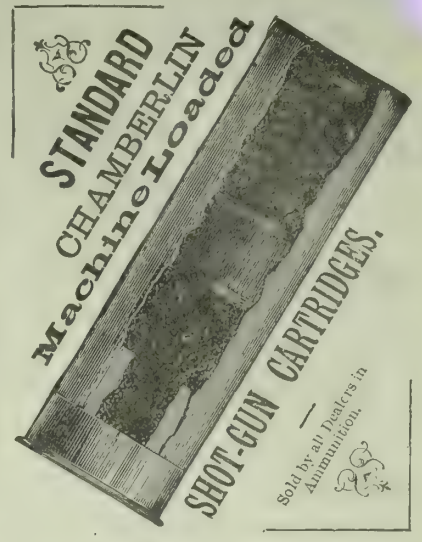
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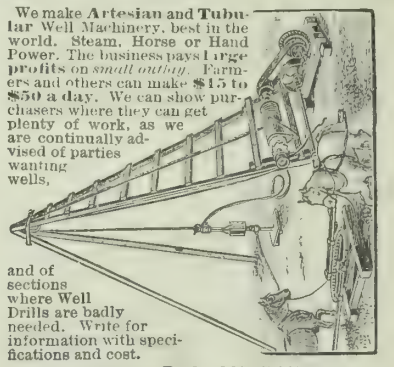
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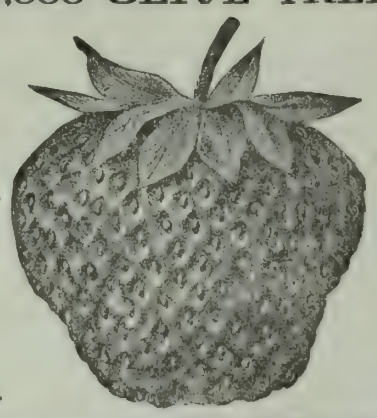
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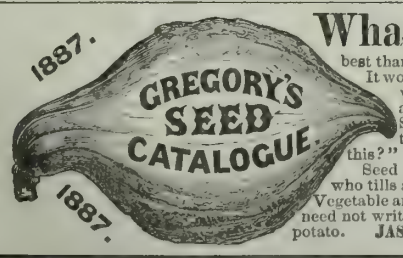
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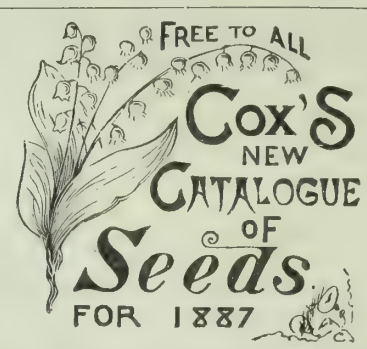
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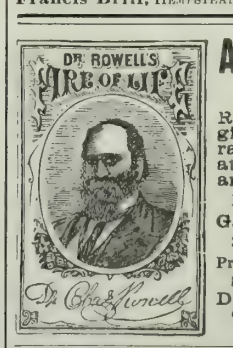


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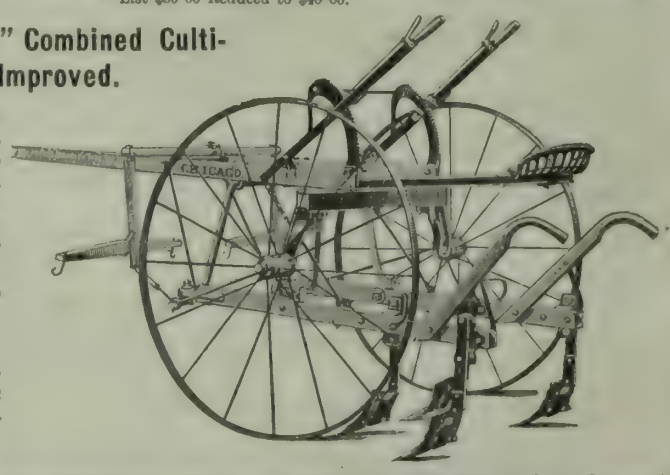
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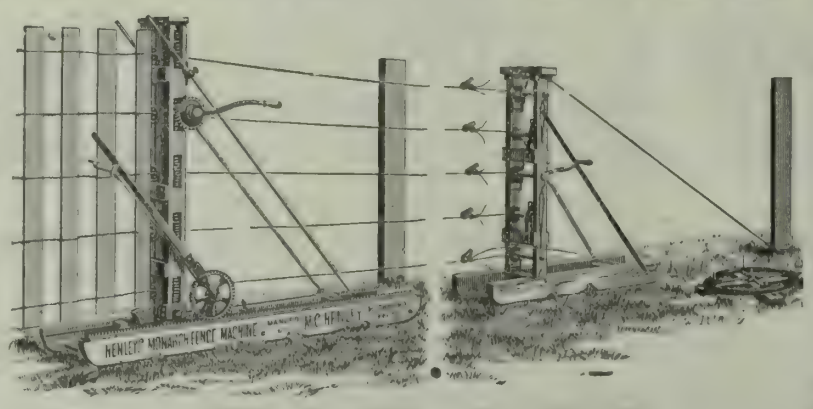
WHOLESALE DEALERS IN HARDWARE AND AGRICULTURAL IMPLEMENTS.

GENERAL AGENTS FOR

HENLEY MONARCH FENCE MACHINE.

IS THE BEST AND HAS NO EQUAL.

1. **BECAUSE** the wire is stretched the full length of the field before the weaving is commenced.
2. **BECAUSE** any sized wire can be used, and with this advantage: using a large size wire, the strongest fence can be made.
3. **BECAUSE** any size, length, or style of picket, or slat, or board, can be used, weaving all equally firm and solid.
4. **BECAUSE** the picket or slat can be woven in more firmly and solidly than in any other machine.
5. **BECAUSE** it will make a fence over rough and uneven ground, or up and down hill alike, making as good a fence as on even, level ground; and the machine being adjustable, the pickets are always woven plumb.
6. **BECAUSE** the **Monarch** machine stretches the wire tighter, thus making the strongest and best wire and picket fence.
7. **BECAUSE** any one can operate it, and there are no parts to get out of order or repair.
8. **BECAUSE** a boy can work it as well as a man, it being light and easily managed.
9. **BECAUSE** it is made of the very best materials, and with proper care, will last a lifetime.
10. **BECAUSE** the price is within the reach of every farmer.
11. **BECAUSE** it is the only machine that forces the slat or picket firmly against the wire, thus securing the slat in such a solid and permanent manner that it cannot be pulled out, and breakage is impossible.
12. **BECAUSE** the fence made by this machine will turn all kinds of stock, and is much stronger than any barb wire fence, and completely obviates all danger of injury to stock.



A FEW OF THE ADVANTAGES

OBTAINED BY THE USE OF

THE WIRE and PICKET FENCE:

It will turn all kinds of stock, sheep, hogs, and poultry, without injury to same.

The strongest wind will not blow it down, if properly put up, and the farmer can go to bed at night and rest undisturbed, knowing well that his crops are safe and well protected.

The amount of ground saved by this style of fencing over the common rail fence, is alone a great object, and would soon save the price of the wire and picket fence.

This wire and picket fence is generally set from two to four inches from the ground, thus allowing the farmer to mow down the weeds and undergrowth, and keep his farm in first-class condition.

While it is possibly not quite as cheap as barbed wire, it has many advantages over it, as any one can readily see.

It is cheaper than board fencing, as any kind of lumber may be used for pickets, and, if it is properly put up, will last a lifetime with very little expense. By weaving past the posts in wire and picket fencing, and not fastening the pickets to posts, the wood parts of fence do not come in contact, thus preventing rotting, as is the case with board fencing, as they rapidly rot off at posts.

Price $40 Each.

SEND FOR CATALOGUE.

IS THE BEST AND HAS NO EQUAL.

13. **BECAUSE** by weaving past the posts, and fastening the wire strands to the posts with staples, and not nailing the slats to posts, thus keeping the wood parts from coming in contact with each other, it will not hold moisture or rot. This is a very important matter, as all boards in board fencing soon rot off at post, and occasion continued expense for repairs. And finally,

BECAUSE it makes the handsomest, best, strongest and most durable fence, and is the only first-class, practical Fence Machine in the world.

The foregoing are only a few of the points of superiority of the IMPROVED MONARCH FENCE MACHINE over all others, and a trial will convince any one of its merits, and that it has no equal. The HENLEY MONARCH FENCE MACHINE will make the best rabbit and poultry proof fence for nurserymen, gardeners and vine-growers, by weaving the slats close together; will also weave a handsome picket fence for lawns, gardens, and fronts of lots, with great rapidity and regularity. Will make the most substantial fence for farms and stock ranches. The MONARCH Machine is making a complete revolution in the methods of fencing. The fence made by this machine is destined to rapidly supersede all other styles and kinds of fence, both wire and board, and the cost of machine, and expense of fencing, puts it within the power of every farmer to inclose his land with the very best and most substantial kind of fencing, at a total cost far below that of any other kind.

HAWLEY BROTHERS HARDWARE COMPANY, San Francisco, Cal.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 7.] SAN FRANCISCO, SATURDAY, FEBRUARY 12, 1887. { $3 a Year, in Advance / Single Copies, 10 Cts.

Southern California.

The southern counties have received their full share of the drenching of the present storm and the land will be made all the pleasanter to the thousands of Eastern people who are now sojourning at the many delightful resorts south of the Sierra Madre. The rain will also assure a fullness of non-irrigated crops and at the same time fill the mountain reservoirs with abundant water for next summer's flow in ditches and from artesian wells. The south continues right along in its course of prosperity and advancement which began nearly a decade ago and has since progressed with accelerating speed. The fame of the south grows constantly by what it feeds upon, and each year's comers bring a greater number the next. The advancement of real estate values, the growth in population, the development of the industries, are all almost phenomenal, and yet there is field for much greater progress and apparently there is no witholding of the agencies by which it may be attained.

We are pleased to announce, and to describe more fully upon a following page, a citrus fair, which will be open in Riverside, on Tuesday, February 22d, and continue during the week. The regulations open competition to fruits grown anywhere, and we hope there will be a general disposition on the part of all districts to participate. We attended the Southern citrus fairs of a few years ago where there were collections from various neighborhoods, and we have always regretted the fact that during the last few years it has seemed impossible to hold a general display. The fairs in the several districts have been fine and have done much good, but it would still seem desirable to supplement them all by a general fair at which at least the five southern counties could collect their productions and give the visitors a more comprehensive idea of the resources of the whole region. If we remember correctly, the last grand effort was held at Los Angeles, and the fact that that city permitted the collapse of the Southern California Horticultural Society, or at least did not erect another upon its ruins, has always seemed to us unfortunate. Riverside has held general fairs and has made some excellent exhibitions of fruit from both within and without its own boundaries. This effort is creditable, but Riverside is too far away from the center of the district to be a convenient point.

We did not intend to preach upon this text, but rather to exhort all to take up the offer of Riverside and let us have the sight of a Southern California Citrus Fair which will include the productions of all the sections within the geographical district. What was shown five or six years ago would hardly be an index to the displays which can now be made. We hope this year's fair at Riverside will show a collection worthy of the whole region, or if that is not realized, arrangements may be made for such an event in the future. Such a display would impress visitors well and do much to overcome sectional feeling, which is too prevalent.



WHAT DOES HE MEAN?—A VALENTINE'S DAY CONSULTATION.

Valentine's Day.

We express our interest in the coming event which is no doubt largely engaging the attention of our younger readers, by presenting on this page an engraving which may be called an incident of St. Valentine's day. Of course there are many phases in the observation of the 14th of February. There are the grotesque, the conventional, the semi-sentimental and the downright-earnest sentiment, which often lurks in the fragrance and beauty of a valentine. It would not comport with our journalistic dignity to notice prominently any phase except the last, and our artist shows two friends consulting over the significance of the message which is no doubt somewhat vaguely expressed; in fact, we surmise that the sender has been guilty of writing a valentine on the Sam Weller order and has unconsciously dropped into poetry. The portrait which accompanies the missive adds to our conviction that the incident is not one of ordinary Valentine's-day significance.

Evidently the young lady upon the left of the picture is the recipient of the valentine and has brought it for interpretation to her married friend, who, judging from the rings upon her ring-finger, may have had considerable experience in such matters even though her years may not be many. The two have withdrawn to a retired spot in the garden and are in deep consultation. We shall not endeavor to follow their thoughts, but will express the hope that the conclusion may be favorable to the absent one whose act has summoned the conclave.

We must tell the truth whate'er befalls. The picture represents St. Valentine's day in California—we shall say it if the words freeze San Francisco bay solid. Our friends are sending us messages blaming our last week's engraving "Midwinter Scene in Central California" for the unwonted storm which followed its appearance, as though the elements resented such imputations of mildness. We are willing to acknowledge that there was a snowstorm, but we shall maintain that by Feb. 14th a seat in the garden, like that shown in the engraving, will be enjoyable. We are willing to stand the laugh; and if we can bring on such a storm in a dry year by the use of a summery engraving, we propose to do it every time. It is a case in which the end justifies the means.

ENTOMOLOGICAL.

Vegetable-Eating Insects and Their Enemies.

EDITORS PRESS:—My father had a large apple orchard in the State of Massachusetts, 50 years ago. Early in life I learned to eat the sweet, juicy fruit and study the habits of animals, birds and insects. One of the insects I especially disliked was the codlin moth, and one of my favorite birds was a variety of woodpecker miscalled the sap-sucker.

I disliked the insect because it liked apples, and I liked the bird because it liked the insect. It was an interesting sight to see the bird hopping about on the upright trunk of the apple tree, propped upright by his half worn-off stump tail, thrusting his bill into crevices, and tearing off the loose bark in his eager search for larvæ. After the loose bark had been removed from the tree, the bird appeared to understand the habits of the insect so well as to know it must be provided with artificial hiding-places, and forthwith proceeded to provide a codlin moth trap—the original, first, cheapest and best ever invented. This was done by boring with its bill one or more circles of holes entirely around the tree. These holes were about the size of a pencil, one or two inches apart, and the depth of the bark. The habits of the codlin moth are such that it is exposed to very few dangers from natural causes. The winged insect hides during the day and lays her eggs on the apple when its bird enemies are asleep. The larva is safe in the apple unless it falls and is eaten by some animal. If the apple remains on the tree till the larva is mature, which it generally does, the larva descends to the ground by spinning a thread, and immediately seeks the trunk of the tree for shelter beneath a scale of bark, or in some crevice or small hole, where in a short time it is secured, by means of its web, against every natural enemy except the woodpecker.

From 40 to 60 years ago people trusted hogs, sheep and woodpeckers to keep the codlin moth in check, and so reliable was that trust that not more than one apple out of 20 on an average was perforated by the insect. I speak from observations of 20 years in the States of Massachusetts, Ohio and Indiana. I estimate that nine-tenths of all the codlin moths destroyed were eaten by woodpeckers.

I believe it was in the year 1873, I observed for the first time this insect in my orchard at Stockton. The next year there were more, and I took some of the worm-eaten fruit to our fair, where I met Mr. Worley, then of the *Evening Bulletin*, and Mr. McGeddes of the Stockton *Independent*. I tried to impress them with the fact that the greatest enemy of the apple had arrived in California by rail, and its natural enemy had not come, and consequently apple-growers and eaters would have trouble. Those two papers gave the first notice of the fact published in California.

I believe the cheapest and best way to fight against these noxious vegetable-eating insects of all kinds is to introduce, propagate and encourage their natural enemies. It is visionary to think of exterminating any of them by all natural or unnatural means. All that can be done is to keep them in reasonable check. Shall we forever keep up spraying and poisoning friend and foe alike, or shall we trust to Nature's methods more, import codlin moth eaters, find out how to increase our stock of ladybugs and other insect-eaters? Four years ago I had millions of red spiders, red scale, white and black scale. Every tree was infested.

It looked like a question of fight or no fruit. So I bought a force-pump and spray-nozzle, and washed every tree twice, with alkalies and soap. After the leaves came out I found plenty of the noxious insects were alive, but I concluded to let them rest till the next winter, and I have rested myself on the bug business ever since. The ladybug, or some other friendly insect, has been destroying these noxious insects better than I could have done. It takes a close search to discover one of them now. When a vegetable-eating insect or animal is imported into a new country, it increases enormously, if climate and conditions are favorable, for the reason its flesh-eating enemy has not come. In time, however, its old enemy will come, or some other creature will develop the will and the skill to catch and devour it. After that, the supply and demand will regulate themselves without human aid. D. A. LEARNED.

Stockton.

From Another Correspondent.

EDITORS PRESS:—In a number of the PACIFIC RURAL PRESS of December 18th I read with interest an essay which was read by W. G. Klee, State Inspector of Fruit Pests, at the Fruit-Growers' Convention at Sacramento, in regard to the codlin moth and the different modes by which people have tried to repress it. The remedies are many, but none thus far tried have proved fully satisfactory. I have carefully read all the experiments and treatment in Mr. Klee's essay to repress the codlin moth, and none is so good as whale-oil soap and sulphate of soda, which he recommends. Spraying, if properly done, is very promising, and will give quite satisfactory results.

In spraying, I would recommend whale oil, if easily obtained; if not, try out the soap grease and apply it warm, with one of Gould's spray pumps, well mixed with concentrated lye reduced to the proper strength. This has a deadly effect upon the pest, as it cannot live if the grease touches it.

To destroy the moth by banding the trees, I have an objection, for the reason that it takes up too much valuable time, and time is money. It takes much time and labor to visit 100 trees once a week or ten days to examine the bands and search for and kill any pests that may have congregated under the bands. My remedy is to wash the trees with concentrated lye reduced to the strength of strong wood ashes lye. Tie some woolen rags on a broom-handle or some other suitable stick quite tight and rub the body of the tree and limbs as far up as practicable. This washing and the lye running down to the roots of the tree will kill all insect pests that find shelter. This treatment supersedes the necessity of banding the trees.

The mothtrap invented by Mr. Trussell is also objectionable on account of the expense, costing, as it does, from 15 to 30 cents each, besides a waste of time in adjusting the trap. There is also another objection: it does not allow for the expansion of the tree when young trees are to be protected.

In Mr. Klee's essay upon the treatment and experiments to destroy the codlin moth, I don't find anything that is as effectual in destroying the codlin moth as the remedy recommended by me. I don't wish to be bigoted in regard to my own treatment. I am sanguine that my remedy is preferable to any that has yet been tried, and my opinion is founded upon the good results of many years' experience and observation, as I shall be 84 years old if I live to the 16th day of March next. Many of the materials mentioned in Mr. Klee's essay are injurious to the foliage, and others are a failure. If orchardists prefer poison on their trees I would recommend them to use Paris green; it is a far more powerful poison than arsenic, and will remain much longer on the trees and not hurt the foliage.

Stockton. LESTER CROSS.

THE GARDEN.

Family Gardening — Hints Applicable to a Dry Year.

EDITORS PRESS:—The indications for a dry year increase as seasonable rains are longer withheld. To many portions of the State and to general farming, a dry year means disaster. But if it comes it must be faced; and it becomes the better part of valor to make the best of such resources as lie within our reach to help us over the sterile stretch that lies as a desert before the weary pilgrim pioneer.

An acre or two of garden can be watered from a good well with the aid of wind and horse-power. This may seem like small business to some of our grand farmers, but such an oasis will prove a great blessing, and produce a variety of food for man and beast which will greatly aid any family in a year of famine.

Of course, in the aggregate, there will be enough, and more than enough—even if it is a dry year—grown upon this coast to feed the people. But, under our present condition of civilization and social status, it will benefit only the ones who are so located as to be able to produce crops. The many upon waterless ranches must suffer even as much as though the infliction was general. The mortgages will not grow lighter, nor the interest cease to gnaw at the vitals.

There will be instances where relatives and friends will be able and willing to aid each other over the dry road. Oh that we were all one family of worthy brothers, each equally anxious to help the other. Is it an unpardonable transgression to wish for such a condition? To even have faith in man's capacity for goodness and his tendency toward progression to the extent of believing in the possibility, and even probability, that upon this earth the time will come when the well-being as well as "an injury to one will be the concern of all"? Even then it would be the duty of each to do his best to help himself, that no unnecessary burden be imposed upon others. But whatever the stimulus, the necessity of each must prompt to action then as now.

A large windmill has great advantage over a small one, as the wind surface and leverage power is much increased by a slight increase in diameter of wheel. Also a large tank should be used when possible, so that the water can be held in reserve for thorough irrigation. Remember that a small piece of ground thoroughly soaked with water and then as thoroughly cultivated on the surface to kill weeds and prevent the waste of moisture into the air by evaporation, is much preferable to twice the surface only half watered. To be in the highest degree successful, do in a thorough manner what you do, both as to irrigation and cultivation. One very thorough wetting, with good cultivation, will produce better than several superficial waterings under all circumstances. And in this way the water can be used the most economically and, of course, do the most good with the least trouble, especially where a large tank can store enough for a considerable run at one time.

The RURAL should from time to time give advice upon this subject of an irrigated garden, from the pens of those who have practiced it, as to what and how to plant, etc. Apply manure to the surface liberally, for all sorts of vegetables. Potatoes, peas, beets, carrots, onion sets, radishes and lettuce should be planted early. Start cabbage and cauliflower plants right away now in boxes for transplanting. Tomatoes and tender plants later on. Even should rains fall in abundance later in the season so that some field crops will produce well on uplands, this year will find whatever you do in the gardening line, with dependence on irrigation and cultivation, time well bestowed and labor amply repaid.

Los Gatos. S. HARRIS HERRING.

SHEEP AND WOOL.

Angora Goats.

EDITORS PRESS:—Owing to the increased price of good farming lands in the West, and the exhausted condition of most old farms in the East, the serious question has approached our farmers: "What can we do to increase the produce of our farms, without an exorbitant outlay to start with?" The glorious vision of an everlasting virgin soil has vanished, and though it is not quite impossible to restore fertility to an exhausted field in a short period, the process is very expensive; it may pay to do so in some instances, but often it will not.

Those who cannot afford to incur such an extra outlay are compelled to hunt for new channels, hitherto unexplored, on their farms, and as a good many farms have a large percentage of so-called waste pasture lots, means have to be found to render these productive.

These waste lots are usually so stony and brushy that horses, cattle and sheep cannot find enough food there to warrant their being fenced, and to reclaim them by the use of elbow grease, certainly would never pay. But goats would be there in their paradise.

However, common goats are not favorites on farms; they have too much the nature of communists, are entirely too independent in their wanderings, and while their meat is too coarse and strong, ever to find general favor, that of their silver-fleeced Asiatic cousins is really a delicacy, and the revenue from their hair is almost enough to winter them on a northern farm. To make it short, they combine almost all the advantages of sheep with those of the common goats.

It is therefore no wonder that quite a number of farmers have already begun to pay attention to this valuable animal, and almost daily I receive letters inquiring into this branch of husbandry. This, as well as the many arguments which have recently appeared in agricultural papers for and against these animals, have induced me to publish a series of monthly articles describing, as closely as may be conveniently done in a newspaper, the nature, good and bad habits and qualities of these animals, and how and where their culture can be made a success.

The favorite food of the Angora goat consists mainly of foliage of shrubs, bushes and small trees, and of weeds. Where they find these in sufficient quantities they will rarely touch grass, which, however, they will eat and do well on it for a time, if compelled to do so. On any farm or ranch, with plenty of brush, these animals can be kept at a profit and almost entirely as a supernumerary; and in localities where brush grows very thickly and on mountainous woodland, they become a necessity, especially if it is the purpose of the owner to exterminate the underbrush and reclaim the land for a pasturing ground for sheep, cattle and horses, or for farming purposes.

If we consider that the United States contain about 300,000,000 acres of rough and rocky mountain land, thickly covered with all kinds of brush and absolutely unfit for any other animal but a goat to pasture on, we can get a general idea of the annual waste caused by the exclusion of the Angora goat from our list of domestic animals.

As to climate, some locations are more favorable to Angoras than others. They need dry and high places, and endure extreme heat and cold equally well, but are not able to withstand much moisture, and the failure of their acclimation in Europe is mainly due to the long, wet spells so frequently occurring there.

The quality of a winter pasture depends entirely upon the amount of evergreens, as spruce, hemlock, cedar, holly, liveoak, etc., it contains; however, they will eat greedily buds and tender twigs, as well as the green bark of any other brush they can find, thus requiring only very small rations of hay in winter.

As cold and snow do not hurt Angora goats, they can be turned on their pastures any dry and sunny winter day; thus, except in low, level countries, entirely bare of brush and woodlands, there is hardly a farm in the United States where a few Angoras cannot be kept to better advantage than the same number of sheep; which, however, does not mean that the former should take entirely the place of the latter, but that farmers should use their own judgment whether goats or sheep, or both of them together, should be kept; for *together* they can be kept, in spite of the general opinion to the contrary, as I shall explain hereafter.

Having said the above as a preliminary, I shall discuss in future the following subjects:

1. What class of Angora goats farmers or ranchmen shall procure.
2. How to handle Angora flocks on farm and ranch.
3. When to shear them, and how to dispose of the mohair to best advantage.
4. The advantages of a co-operation of all breeders and of the register.

G. A. HOERLE,
Cor. Sec'y Am. Mohair-Growers' Association.

METEOROLOGICAL.

A State Weather Service.

Sergt. J. A. Barwick, U. S. Signal Service observer at Sacramento, writes to the *Record-Union* in support of the proposition for the organization of a State weather service as follows:

I am informed that a bill to create a "State weather service" for California is now in the hands of the Senate Finance Committee, and the said committee makes the following objections: First, it creates a new bureau which will require a permanent appropriation. Second, it is needless. Third, it would cause the United States Signal Service to neglect California.

I have the honor to say, Messrs. Editors, that the State weather service could and should be attached to the State Agricultural Society, and let the secretary be the director of the State service, with a small addition to his salary. It would then require comparatively but a small appropriation to keep it running, for the purchase and repair of instruments, etc. If the State service is in co-operation with the United States Signal Service, then a signal service man would be furnished to put the data in proper shape for the signal service department. He would therefore be an assistant to the secretary of the State Agricultural Society if it had charge of the State weather service.

As far as its causing the United States Signal Service to neglect California, it would be a great help to the officer in charge at San Francisco in making monthly reports and abstracts of the weather, and would be an extra encouragement to the Chief Signal Officer at Washington to help California that much more.

A State weather service is sadly needed now, especially as various sections are working hard to boom their individual portions of the State. The whole State would be benefited by a State weather service.

The object of a State weather service should be to observe and utilize every feature that affects the prosperity of the inhabitants of the State as to crops, health, life, etc. The State service is, therefore, essentially a plan for gathering and utilizing local data, and eventually it will define precisely the localities most favorable to special crops, diseases, etc. The idea is certainly a noble one. The plan of the State service is to have a central office and a State Director, and at least from one to four voluntary observers in each county, who will keep a record of temperature and rainfall, and report the same to the Central Office of the State weekly and monthly. Attention is invited to the following advantages of a "State weather service":

1. It will be the means of soon securing better predictions of weather changes and storms.
2. It will bring the benefits of the Signal Service of the United States into every county of California participating in the State local organization, and will be widely beneficial to agricultural interests.
3. It will give to every county the Government standards for temperature, rainfall, wind velocity, humidity, etc., which are sources of useful public information.
4. It will put within the reach of local agricultural societies means of accurate observations, which in the course of years must be valuable to any locality in the study and adaptation of cereals.
5. It will bring the science and methods of the Signal Service within the reach of the high schools of the State, offering teachers and pupils alike excellent opportunity to study a wide range of the application of science to foster and protect agricultural industry.
6. It will lead to the collection of rainfall statistics to enable engineers to better estimate the supply of canals, also the sudden downpours to guard against in laying out sewers in cities. It will lead to a correct knowledge of rainfall over different watersheds of the State, for the purpose of giving data for supplying the waterworks of cities, towns and villages.
7. It will lead to the forming of reliable meteorological records for use in legal cases.
8. It will lead to a better practice of medicine, when physicians throughout the State can study diseases with reliable and accurate meteorological facts by their side; and for sanitary purposes, correct meteorological statistics are invaluable to the practitioner in applying preventive remedies for the public good.

For about $13 the instruments for temperature and rainfall can be secured, viz.:

Thermometers.	Cost.
External	$ 2 50
Maximum, self-registering	5 00
Minimum, self-registering	4 00
Rain gauge	1 25
Measuring stick	25
Total	$13 00

To take observations requires but little time daily, and the exercise is especially agreeable to those that are interested in natural science. Twenty or more States have already entered on the work with most gratifying results. The complete success which is anticipated will only come when each State does its part, and it should not be said of California that we have neglected a matter of such importance to the entire community, especially the farmers.

All trades and professions are more or less affected by changes in the weather, and the

study of the phenomena is becoming more and more interesting to every man and woman in the country.

All of which is respectfully submitted to the consideration of the Senate's Financial Committee. Very respectfully, your obedient servant,

SERGEANT JAMES A. BARWICK,
Observer Signal Service Corps, U. S. A.

HORTICULTURE.

Crystallization of Fruit.

NUMBER 2.

Report on Methods in the Cognac District.

We continue our descriptions of French methods of producing crystallized or *glace* fruits with the following report from Consul J. E. Irish, of Cognac, France:

I have extended my inquiries as far as practicable for this portion of France, and am enabled to state that the actual processes of crystallizing fruits have been generally abandoned throughout the country, on account of the expense attending thereon and the general scarcity and usually high price of fruit.

However, there are, in all the towns of this region, such as Cognac, Angouleme, Saintes, Rochefort, La Rochelle and Limoges, persons who are familiar with the business, who deal in the crystallized fruit, and who have formerly engaged in its manufacture. The testimony on the subject is to the effect that the process of crystallization is now largely and almost entirely confined to a few points, namely: Clermont-Ferrand, in the department of Puy-de-Dome, in the consular district of St. Etienne, and Carcassonne, department of Aude, in the extreme south of France, and in the bounds of the Cette agency of Marseilles.

A reasonable amount of manufacturing is done at Paris, and also at Bar-le-Duc, department of Meuse, where the production is chiefly confined to the preserving of currants, gooseberries, and such like fruit.

Clermont-Ferrand is the most important place for this industry in France, and as fruit is usually abundant and cheap in that locality, they are enabled to furnish the dealers throughout all this region to much better advantage than the dealers themselves can manufacture it.

As a consequence of the confinement of the work to localities beyond my bounds, it will be seen that I have not the data for its cost and extent of production.

Neither are the manufacturers usually disposed to furnish detailed information concerning their business, and many obstacles lie in the way of an investigation.

I am enabled, however, to furnish a tolerably clear statement of the various processes of the work, which, as a whole, is quite uniformly practical whenever the labor is performed.

Whitening Fruits.

Much precaution is necessary to be taken to well preserve the fruit, whether it be dry or watery, in order to obtain good results.

Success depends largely upon the first act of bleaching. The bleaching, or whitening, of the fruit must be regulated according to the quality and maturity of it; the water must not boil, must simmer only.

It is well to choose each kind of fruit a few days before being ripe; it should be hard or firm and gathered in dry weather in the morning, and whitened as much as possible the same day, for if too ripe it will fall in marmalade; if not enough it cannot be properly preserved, the pores will become closed, and the sugar cannot penetrate. The fruit will become hard, acid, black and moldy. It is necessary to place the fruit in a considerable quantity of water to whiten it that the water cover it at least eight inches, in order that there be no necessity to increase the quantity during the process. In such a case added water should be of the same temperature. Cover the fruit with an osier screen or linen cloth, and put about four inches from the bottom of the vessel a copper colander, to prevent injury from the fire. Stir the fruit from time to time lightly, with a skimmer, to aid the riper portion to rise. Usually the fruit is whitened with the naked fire, but it is much easier to do it with steam, because in that case it is not exposed to the danger of scorching, and the degree of heat for the various kinds of fruit is easier regulated.

M. Rangot, confectioner, 4 Rue de la Verrerie, Paris, has invented an apparatus, called a *confisoire*, very convenient for preserving fruit. The use of this is to avoid the necessity of decanting, and 25 gallons or more can be preserved at a time in 60 hours, and watery fruit in 72 hours.

Each kind of fruit is whitened in a different manner. Stone fruit is placed in cold water over a slow fire, and removed with a skimmer as soon as it rises to the top of the water. The condition of the cooking is ascertained by the use of a pin, which must easily penetrate, or by softly pressing with the fingers; when it is found to be sufficiently soft it is taken out and put in cold water. If there is a great quantity of fruit to be whitened, the same water may be used again, especially for plums and green fruit.

Plums that are whitened in the first water, not being so nice and transparent as those whitened in the second, the poorest and ripest and ill turned may be whitened first to acidulate the water. Some confectioners employ lemon-juice, verjuice, pysoligneous acid, alum, marine salt, epsom salt, etc., to preserve the whiteness of the fruit, and blue vitriol, vinegar, or salt, to turn it green. It is dangerous, however, to use the blue vitriol; too great a quantity causing the water to turn bluish, and the fruit then becoming black. If used, put not more than three grains to a quart of water, and when the fruit is whitened, put it in water for 24 hours, changing four or five times.

To be assured the water or fruit does not contain any part of the vitriol, plunge a well-polished bar of iron into the water; if it is not covered with a copper tint there is no danger.

When plums or other fruit are to be whitened, if the water is to be used again, let it cool before using until it becomes lukewarm, and leave the fruit in it awhile before heating; this is why the use of steam is so helpful.

Fruit with a tough skin requires longer to whiten, and time, according to its quality; hence the following notices of the time required to preserve each kind of fruit.

Sugaring Fruit.

After the whitening process is completed, great care is still required to properly preserve them in sugar. If the fruit is too firm or hard, or not ripe enough, on being removed from the whitening process it must be put in sugar reduced to a syrup of 23°; the water contained in the fruit will be eliminated and the syrup reduced to 20°; it will be necessary the next day, for the first operation, to increase it to 25°. Cover the fruit and boil it, pour it out gently into an earthen dish, and place it in the cellar in a cool and dry spot to avoid fermenting. Continue cooking it from day to day, making it one or two degrees thicker. Covered when boiling.

Ordinarily this process is repeated from five to eight times, thickening to 36°, or more, according to the maturity of the fruit. If the fruit is soft or too ripe it will be necessary to cook the sugar more to harden it and preserve it from falling into marmalade. Reduce the sugar to 28° for the first shape or condition, increasing 2° each day, for each shape. It is sometimes necessary to give two shapes each day, morning and evening. In that case increase the sugar only 1° each time, and only simmer the fruit; afterward put it in the cellar. If it is desired to preserve the fruit very clear and white, it is necessary to change the syrup in the middle of the shape. In such case it is necessary to thicken the sprup with apple jelly or glucose, to prevent its candying. When the fruit is sufficiently preserved, it is left in a cool and dry place from 8 to 15 days, in order that all the water may escape and it become impregnated with the sugar.

It is necessary that the fruit be well drained at each shape or stage of the process, because if reduced syrup remains at the bottom of the vessel into which the fruit has been poured, and a covered boiling or simmering has been neglected, it will contribute to its fermentation.

A spigot at the base of the vessel, for the purpose of draining the syrup, is very useful in the case of apricots, chestnuts, strawberries, raspberries and all tender fruit. The quantity of sugar necessary to preserve each sort of fruit is not indicated, as the fruit will take only the amount of syrup necessary for it; it is only important that it bathes in the syrup.

Preparing Particular Fruits.

I present herewith instructions for preserving a number of the more important kinds of fruit:

Apricots, Whole.—Choose the white apricots from high trees, or grown in a garden, along the wall. They will be recognized in opening by the meat forming species of rays around the stone.

It is necessary to take them some days before their maturity, when they begin to turn yellow, and the stone is easily detached, and they are firm.

Make a little incision at the head with the point of a knife. Hold the fruit in the left hand with the thumb and fore-finger, then pushing the knife at the place of the stem, the stone goes out at the top or head. Proportion the apricots in water slightly alumed, or acidulated with lemon juice. Prick them in the green parts which are not ripe enough, then whiten them on a slow fire, stir them from time to time to aid the ripest to rise to the surface; try them on the skimmer with the fingers or a pin, and put them in fresh water as soon as whitened. When they have become cooled, after having changed the water several times, put them in sugar, warmed to 20°, and make them simmer or slightly boil, if they are not too ripe. The next day, put them in sugar at 22°, boil them, covered, if the fruit is firm, or simmer them if it is tender; continue thus each day for five or six days, or processes, increasing 2° each time until 36°, then let them remain for 15 days, as heretofore indicated.

When the fruits are a little large, turn them with a thin and suitable knife, that the sides may correspond; with a toothed knife the sides are better and neater. Cherries, oranges, nuts, pears, etc., are turned in the same manner.

Stuffed Apricots.—Take whole, preserved apricots, and introduce in each plum or other small preserved fruit separated from the stone, which replace by lemon or lime.

They are equally stuffed with the marmalade of apricots, pineapples, strawberries, apple jelly, currants, cherries, raspberries, etc., and a peeled almond is put in the middle

Apricots in Quarters.—Choose apricots already yellow, without being ripe, firm, and with the stone easily detached. Peel them or turn them, and prick them lightly with a pin and immediately throw them in fresh fountain water lightly alumed. Whiten them and put them in the syrup like the whole ones. When they are preserved, drain them, put them in a stewing dish with syrup at 20 degrees, and add the juice of a fine orange. The apricots are iced and candied, drained and placed with preserved fruits in boxes. Increase the syrup at each process, so that the fruit is bathed in it.

Pine-Apples.—Choose the pine-apples before they are entirely ripe, remove with care the first pellicle, leaving half of the middle of the crown, prick them with a large needle to the heart in several places. Whiten and preserve them like the apricot.

Cherries.—Take fine cherries with considerable acidity, take off the stems, push out the stones with a quill, and place them reversed side by side on a strainer. Afterward put them in an earthen dish in layers, with equal parts of powdered sugar, until the next day. It is necessary to decant them several times to dissolve the sugar. Heat them slowly, and proceed as with syrup.

Quinces in Quarters.—Choose quinces of a fine yellow, and well ripe and sound. Take off the down with a linen cloth, prick them to the heart with a large needle, put them in a proportional quantity of alumed water, place them afterward over a quick fire, boil for a time, and when tender throw them into fresh fountain or river water in preference to well water (as such contains less calcareous salt and is softer). Fountain water is preferable for preserving all fruit, especially white fruit. Peel them and take out the cores, cutting them in equal quarters; put them again in alumed water, and continue whitening them until the head of a pin passes easily through the quarters, and the hole closes up again. Quinces are also whitened in the following manner: The fruit is just peeled, and a lemon rubbed over each slice to prevent its becoming red; then put in alumed or acidulated water, then they are whitened.

The former process is preferable. They are preserved like apricots, having care to cover them with a white linen cloth at the surface of the water, and to cover each vessel into which they are poured with linen or white paper, to hinder the fruit from reddening. It is necessary to take these precautions for all white fruit. When it happens that water reddens in whitening them, it is necessary to change the alumed or acidulated water.

Lemons.—Choose fine lemons well united, turn them, make a hole with a punch at the right of the stem, put them successively in fresh water. Whiten them, empty them like oranges, preserve them and ice them the same.

Quarters of Lemons.—Take fine lemons, well ripened, united, and without spots; separate the largest part of the white, after having cut them in equal quarters. Whiten these skins like citrons, and preserve them and ice them the same.

Citrons.—Choose fine citrons uniformly ripened. Test them with a piece of glass to raise only the surface of the rind. Make a hole with a punch a little larger than for lemons. Whiten them with much water. When they are half whitened, empty them with a coffee spoon, put them in fresh water, and finish them and whiten them like lemons, and preserve them the same. Citrons in quarters are emptied only when they are whitened. Leave them 48 hours in fresh water, changing it two or three times a day to remove the bitterness of the rind.

Raspberries.—Choose fine red raspberries, not too ripe, that you may examine carefully. Put them in an earthen dish; about 9 pounds in each; cook with an equal part of sugar *au souffle;* empty, decanting four or five times during an hour, into a similar dish; put them on a slow fire, bringing them to a boil again; put in the cellar until the next day, draining slowly so as not to crush them; and cook in sugar at 28°, covered while boiling. The next day cook them at 30°, the third day at 32°, afterward drain them so as to dry and candy them. I need not specify their numerous uses.

Strawberries.—Choose them firm, without being quite ripe, and preserve them the same as raspberries and cherries.

Oranges.—Choose very fine oranges, very firm, and with a thick skin. Turn them, making all sorts of designs, and put them in fresh water. Whiten them, and empty like lemons and citrons. They are preserved and iced the same.

Oranges in Quarters.—Choose similar oranges. Mark four separations in the orange without detaching the quarters. Whiten as heretofore shown, and when they are well preserved, divide the quarters for the various uses. The skins and peels are preserved and iced the same, and are used to perfume sweetmeats, etc.

Plums.—Choose fine fresh plums, not too ripe, but commencing to turn yellow. The plums of Metz are superior to all others in France, for preserves. They are very transparent, and once preserved, have a very delicious taste. Prick them to the stone with five or six pins fastened in a cork. Put them in a proportionately quantity of fresh water lightly alumed. Let me here refer to a former statement about using water more than once in whitening plums. Care must be taken to put the fruit only in lukewarm water to commence to whiten it, and leave it in some minutes before increasing the heat. The plums are whitened and preserved the same as apricots.

Pears.—Choose fine pears, like the butter pears of England or Rheims or Bergamots, and when not too ripe, when the pips are black, and when in paring them they are white under the skin. Put them, with a good deal of water, on a quick fire, or with steam, until they are softened, then remove them and put them in fresh, cold water. Pare them as lightly and promptly as possible, prick them from the head to the core, cut and scrape the end of the stem, and throw them into a quantity of fresh water, alumed and acidulated. Put them again on the fire, cooking them until the head of a pin enters easily, and the whole closes on withdrawing it; then put them again into fresh water, lightly alumed or sharpened with lemon juice. Preserve them with the same precautions as quinces and apricots. As the pears are easily candied, the sugar must be thickened with apple jelly or glucose.

Peaches.—Choose fine peaches, before their maturity, and quite firm; whiten them and preserve them whole, or in quarters, like apricots, being careful not to boil them; for it is a very tender fruit and liable to fall into marmalade.

Green Gages.—Take green gages of a good size without being ripe or colored, of a fine green rind, firm, the stone being detached easily. Cut the end of the stems, and pick them in divers places, notably near the stem, with a little bodkin. Put them into a basin full of water on the fire, or with steam, so that they may have ample room. As soon as they become yellow, remove them from the fire, and throw in a pinch of salt, vinegar, and spinach, or verjuice. Blue vitriol is also employed, but in small quantity; to make them green again, let them remain quiet for some hours, then put them on a slow fire without boiling, stirring them from time to time, until they again become green, then increase the heat, and as they rise to the top of the water, remove them and put them in fresh water, removing it several times until they become thoroughly cool. They are preserved with sugar like other plums.

Iced Fruits.

The preserved fruits are iced to dry them. They are drained, then passed through lukewarm water to wash them, then put an hour or two in a drying stove in an earthen dish. Sugar cooked to the grade *au petit souffle* is put with them, and they are made to take a covered boiling, are skimmed, the basin taken from the fire and placed on a table in an inclining position, where the sugar is massed on the border of the basin with a spatula. When the sugar commences to whiten, turn one or several of the fruits in the whitened portion, remove them with a fork, and spread them on a grate or strainer placed over a dish or mold to candy.

When the fruit is small and the sugar commences to grain, mix the whole together, raise the fruit quickly with a skimmer and put it on a strainer. When the fruits are soft it is necessary to cook a little harder and mass the sugar more than for hard or dry fruits and rinds.

This ice is now kept for use, and when wanted a little sugar is added each time. When thick or gelatinous, it is cooked and massed more, or replaced.

Candied Fruits.

Drain the preserved fruits, wash them in lukewarm water, and put them on a strainer on the stove to dry. When they are dry put them side by side, and put them between two strainers made for the purpose, and place them thus in a mold to candy.

Take sugar cooked *au petit souffle* at 36° to 37°, and pour it slowly over the fruits from above, and then place the mold in a drying stove; heat to 40°, drain when sufficiently candied, ordinarily at the end of five or six hours.

Fruits that are dry and firm are also candied cold, the candy is finer and less subject to mass; in that case the sugar is cooked 1° or 2° less, is put to candy at night and drained the next morning.

Sugars.

I now, perhaps, have sufficiently presented the processes required by my instructions, but it seems important, to make matters clear, that something be said concerning the various forms of preparation of sugar that are used in the business.

Only clarified sugar is used, and this is reduced to syrups of various densities. The degree of density is ascertained by a *pese* syrup, an aerometer invented by Beaume.

The first condition of cooking which I shall mention is called *La nappe*, and the sugar weighs 20°. When, in dipping the skimmer into boiling sugar, after a turn of the hand, the syrup spreads along the skimmer, it has reached this stage.

Petit lisse.—The sugar weighs 25°. Some boilings after *la nappe*, pass the forefinger on the skimmer charged with syrup, and apply it against the thumb. If, in spreading these two fingers, you see a little thread which breaks immediately, leaving a drop on the finger, you have *petit lisse.*

Grand lisse.—The sugar weighs 30°. When the thread has more consistency, and spreads more, you have *grand lisse.*

Petit perle.—The sugar weighs 33°.

Grand perle.—The sugar weighs 34° and 35°. If at last in spreading the two fingers the thread sustains itself without breaking, you have the *grand perle.* The attentive workman will distinguish these two cookings by the aspect of the liquid. It produces large, high, round bubbles going out from the boiling in the form of pearls.

Petit souffle.—The sugar weighs 37°. It will be recognized when, in blowing through the holes of the skimmer after it has been shaken, the liquid forms little bubbles on the side opposite, which lightly detach. This is the *petit souffle* employed in icing fruit.

Grand souffle.—The sugar weighs 38°. After some boilings operate as in *petit souffle.* If the bubbles are larger, resembling soap-bubbles and maintaining themselves a moment, it is the *grand souffle.* Or dip your finger in fresh water, plunge it in the sugar and dip it again in the water, if there remains a little compact sugar at the end of your finger you have the same thing.

The same means are employed for the cooking of *gros candi.*

Petit boule.—The sugar weighs 39°. Dip your finger in fresh water, then in the boiling sugar, and then again in the water. If it forms a soft ball which one can turn in the fingers, you have the cooking for bon bons with liquors.

Grand boule.—The sugar weighs 40°. After some boilings more renew the preceding operation. If the ball is larger and harder, you have the cooking for preserves which are not clear.

Petit casse.—After some boilings operate as before. If in cooling the sugar it breaks; if it attaches to the teeth, it is a *petit casse.*

After the *grand boule*, the degree of the sugar is no more observed. It is then the cooking of the twisted sugars, or *sucrestors.*

Grand casse.—When after being further cooked the sugar produces a little simmering in water and adheres no longer to the teeth, it is a *grand casse.* This is the cooking of barley sugar, caramels, burnt almonds, etc. An experienced workman will readily recognize it by the crackling which the sugar makes in the fingers. J. E. IRISH, Consul.

U. S. Consulate, Cognac, France, Nov., 1885.

FORCE IN HEAT.—The amount of force exerted by heat and cold in expansion and contraction of metal is equal to that which would be required to stretch or compress it to the same extent by mechanical means.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Our Legislative Needs.

At a recent meeting of Temescal Grange, some discussion was had as to the legislation needed in California, and a committee was appointed to express opinions on the same. At the meeting on Saturday last, for the committee, Bro. J. V. Webster presented the following report, which was adopted by the Grange:

Report of Committee.

Worthy Master and Members of Temescal Grange: Your committee, appointed on the subject of legislation, beg leave to report that there are many matters, of vital interest to the people of the State, that should be considered by the Legislature now in session. Probably that of most importance is some legislation which will compel the Central and Southern Pacific Railroad Companies to pay their delinquent taxes, which at present aggregate two million three hundred and forty-seven thousand six hundred and eighteen dollars ($2,347,618). A part of each year's tax since 1880, and inclusive, has been allowed to go delinquent, the company paying just such portion of each year's tax as it was "minded to pay."

In making up the estimate of revenue to defray the cost of running the State and county governments, the railroad taxes are, of course, included; and the companies' failure to pay them has caused a deficiency of nearly half a million dollars in the State Treasury within the last two years, and an aggregate of more than twice that amount in county fund deficiencies. This condition of things will inevitably cause a higher rate of taxation the present year to make up the deficiency—that is to say, the farmers, mechanics and tradesmen of the State must bear this additional burthen, because this monopoly is above the law, and contributes to the State only what it is "minded to pay."

Now, if one single individual or corporation is above the law, or can control its operation by influencing court decisions, then the law is set at defiance, and the only reason why anarchy does not reign supreme is, simply because the good people of the State choose rather to submit to outraged and violated laws than defy them, as this overbearing corporation has been doing for the last six years.

Second—Another ominous evil, which to-day threatens the stability of our Republican institutions, is the United States Senate, as now constituted. The members thereof being absolutely independent of the popular will, owing their positions to the influence of money and great corporations, their sympathies and material interest most assuredly lie in the same direction; so that before the general public can hope for just and equitable legislation from the hands of that august body, the Federal Constitution must be so changed as to make the positions elective by the people of the several States rather than by the Legislatures thereof, as now provided.

As a beginning, in furtherance of this plan, we earnestly recommend that the Legislature now in session be urged to adopt a concurrent resolution, expressing the sense of that body in favor of this proposed change.

Third—Since it is manifest to every one that the assessment blanks, as now prepared by the several County Assessors, need correcting, in the matter of uniformity and impartiality, we recommend that the law governing the subject be so amended as to require the State Board of Equalization to prepare said blanks so that they will be uniform throughout the State, to the end that all personal property, whether in town, city or country, shall be equally and uniformly assessed, either in detail or under general headings.

Your committee would further recommend that the following preamble and resolutions, adopted at the late session of California State Grange, be indorsed, with this report, and copies thereof sent to members of the Senate and Assembly, and also published in the RURAL PRESS and *California Patron:*

On Irrigation.

WHEREAS, The question of water, for the purpose of irrigation, stands paramount to every other in this State at the present time; and

Whereas, The necessities of our people are such that a speedy solution of the question must be reached, which will admit of the innavigable streams of the State being equitably distributed for the purposes of irrigation; therefore be it

Resolved, By California State Grange, that irrigation districts should be established under authority of law, and State control which will secure such equitable distribution of the waters of said streams.

Resolved, That no individual or corporate right to the waters of the streams aforesaid, shall be recognized or allowed, with the exception of a sufficiency thereof for the actual and legitimate use of riparian owners. But to satisfy the greater necessities of farming communities, even this single reservation may be taken, under the law of eminent domain, upon the payment to said riparian owners the actual damages resulting from such diversion.

On School Laws.

WHEREAS, The School Law, as at present enforced, makes each fiscal school year commence on the 1st of July, and requires that all school funds shall be expended in and for the year in which they are collected; and

Whereas, Said funds are collected, with other State and county taxes, in December and January of each school year, all of which must be expended on or before the 1st of July following, thereby leaving no funds in the treasury, with which to pay the salaries of teachers for the fall term of school; therefore, be it

Resolved, By California State Grange, that the law should be so changed as to make the school year commence on the 1st of January, instead of the 1st of July.

All of which is respectfully submitted.

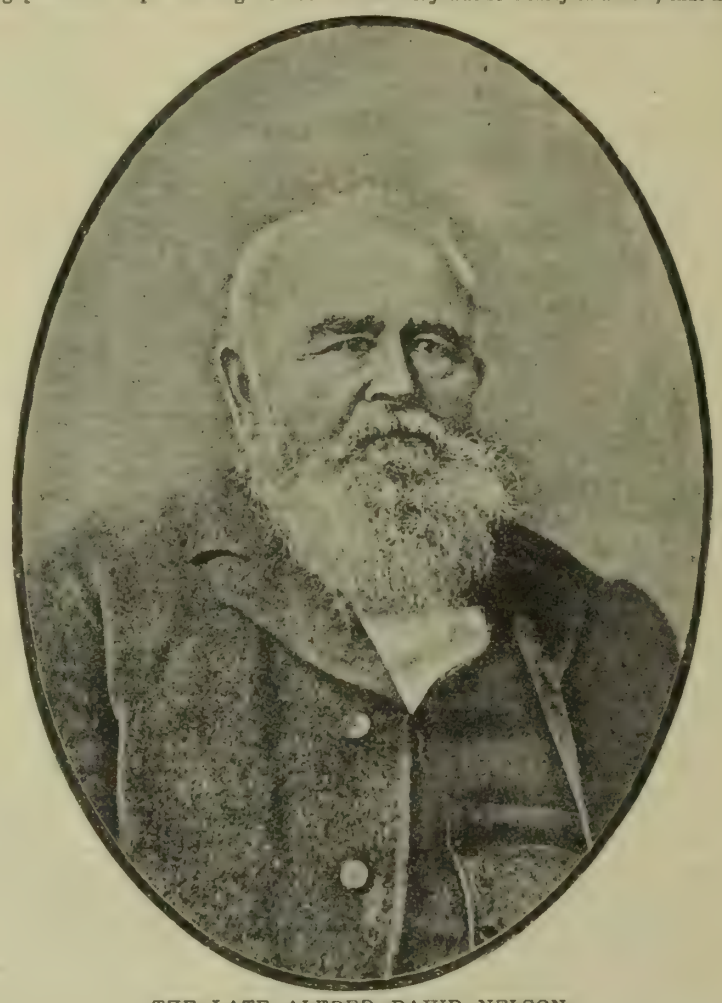
J. V. WEBSTER,
W. RENWICK,
JOHN PAINE,
ELLEN E. KELSEY,
NELLIE G. BABCOCK,
Committee.

Alfred David Nelson.

The portrait of Father Nelson, which we to-day present, will be recognized by all who knew him as an excellent likeness of our departed brother, and the many who esteemed and loved him well will look upon it with a tender and reverent satisfaction.

He was born in Jefferson county, N. Y., April 20, 1812, and died on the 31st of December last, in the 75th year of his age, at his home in Butte county, a mile from the town of Nelson, which was named in his honor.

Father Nelson was a person of rotund and imposing presence. Up to the age of 50 his



THE LATE ALFRED DAVID NELSON.

weight was about 170 pounds, but after that increased largely, at one time reaching 315, and being for years nearly 300 pounds.

He was looked upon as a leader in the anti-monopoly movements, and was one of the candidates upon the Butler ticket for presidential electors. A clear, able and cogent writer, his style went on improving through his latter years, and reached a degree of excellence that any journalist might well be proud of.

His wife, although an invalid for more than 20 years, survives him with seven children. Of their five sons, two are extensive flock-owners in Nevada; one a well-known lawyer at Ogden, and the remaining two were associated with their father in farming in Butte and Tehama counties. One of the daughters is married in Oregon, and the other, Mrs. C. N. Walter, lives in Oakland. The last-named lady has, in compliance with our wishes, prepared the exceedingly graphic and happy sketch which we now lay before our readers:

EDITORS PRESS:—At your request, I write this brief sketch of my father's life. He was born in 1812. The "times that tried men's souls" were not long past. The love of liberty, the love of country, was warm in every heart. In his early childhood, he listened to stories told of resistance to and hatred of wrong, of the struggle of right against might. It is easy to see that the principles which actuated him all his life were his by birth, for he came of clear-headed, strong-handed New England parentage, and these principles were made stronger by his early surroundings and education. His school privileges were few; but he was always a reader, remembered what he read, and could use his knowledge to the best advantage. He was indeed "quick to learn and wise to know."

Before he was 12 years old he went with his father's family from Western New York to Michigan, then almost a wilderness. His young life was full of work, much of it of such a nature that at this day it would seem all wonderful adventure. He knew how to make a canoe out of a log, and no Indian could handle one better. He helped to build part of the old turnpike road from Chicago to Detroit, surveying the country, finding the best way to cross the rivers, and avoid the little lakes, in which Southern Michigan abounds. He was at one time interested in the salt works above Saginaw, but found the business not profitable.

Often in this wild new world his only companions for days were the Indians, whose language he easily learned, and whom he often employed to go upon errands or help him in various ways, no other help being available.

Neither were tools at hand as now. There were trees to be cut down, and he could make his own ax-helve and put it in the ax, and few men could better use one. Was there a team needed? Then he could make a yoke, shape and fit the bows, and break the wildest oxen to gentleness.

All he did was done well.

After his marriage, which took place in 1837, he moved to Hillsdale county and engaged in farming. Always interested in public affairs and a strong Whig in politics, he was ever ready to give a reason for his partisanship. He knew the political history of the country so much better than the majority of people, his memory was so nearly infallible, that he was a strong man in an argument. Not often did he find a "foeman worthy of his steel." When the old Whig party no longer existed, he was thoroughly in accord with the Republicans. Later in life he took more advanced grounds, working more for measures than for men.

In 1859 he came to California with his family, across the plains, settled in Butte county, and engaged in wheat-raising.

He was an active member of the Grange, believing that through it the farmers would be brought to realize the dignity of their position, and all labor, whether of the head or hands, be ennobled. He was a Master Mason, a member of Oroville Lodge. Many positions of honor and trust were tendered him during his life, but for reasons that seemed good to him he always declined accepting any of them.

A grand man—a strong mind in a strong body—he lived his life well. He shrank from no duty, and turned back from no hardship. Honest of purpose, strong in his integrity, and so firm in his convictions of right and duty, so loyal to truth, he had that force of character which made men martyrs in the olden days. No more faithful and devoted husband and father ever lived. Social in his nature, he was a true and steadfast friend. His work is done and well done. He will be held in fond remembrance in many homes, and loving friends will keep his memory green.

C. N. WALTER.

While visiting his daughter, Mrs. Walter, in Oakland, it was Bro. Nelson's custom to attend Temescal Grange, and cheer the little circle with words of wisdom and kindly encouragement. The resolutions (elsewhere published by Temescal Grange) are only a fitting acknowledgment of the esteem in which he was held by its members as well as by Patrons generally.

Father Nelson Resolutions.

In Memoriam.

Worthy Master and Members of Temescal Grange:—Your committee appointed to prepare a paper expressing the sense of our membership on the life-work and death of our beloved brother, A. D. NELSON, late of North Butte Grange, beg leave to report:

The immutable laws of God, which mark in our lives and upon the face of nature continual change, have caused to crumble into dust the tenement of a noble soul. Yet there is consolation in the thought that death has no terrors for one whose life of nearly four-score years was spent in devotion to duty and in the defense of human rights. In fact, there is no death so beautiful, or so nearly in accordance with the Divine plan, as that of ripened years. Such are like the golden apples of autumn, which, having withstood all the vicissitudes of the seasons, fall to the ground fully matured, rich in all essentials pertaining to their kind.

A living example of vigorous manhood, devoted to duty and ever mindful of the interests of the farm and of the Grange, Brother Nelson has been a tower of strength to our beloved Order in this jurisdiction. The weak have gained strength, and despondent members have taken courage through the influence of his earnest speech and commanding presence. In sympathies and affections, none were more tender; but in advocacy of justice and equality, the adamantine rocks were not more firm and unyielding.

His able and faithful service as a member of the Executive Committee of California State Grange, when the Order was in its infancy, and needed a guiding hand of undoubted trust, will endure and be remembered so long as the records of the committee are preserved.

Surviving the death of his charter Grange, of which he was Master, his love for the Order, and desire to promote its welfare, induced him to affiliate with North Butte Grange and regularly travel 20 miles to be present at its meetings. Seldom, indeed, has he failed to attend the annual meetings of the State Grange, where he was always active and vigilant in securing harmony and co-operation among its members. Ever conscious of his near approach to the still waters of the dark river, it was a common saying with him—"It is Saturday in the afternoon and almost sundown with me, so I have but little time left to work in a good cause."

The sympathies of this Grange are hereby tendered to his widow and bereaved family, with the hope and belief that a full knowledge of his noble life-work will add consolation to their sorrow.

Your committee would further suggest that a copy of the foregoing be sent to the bereaved family and published in the RURAL PRESS and *California Patron*.

All of which is respectfully submitted.

J. V. WEBSTER,
NELLIE G. BABCOCK,
ELLEN E. KELSEY,
Oakland, Feb. 5, 1887. Committee.

San Jose Grange on Woman Suffrage.

We have received from San Jose Grange a copy of resolutions which we take pleasure in publishing at the first opportunity since the receipt of the MSS.

WHEREAS, The National Grange, P. of H., at its last session at Philadelphia, struck from the report of the Committee on Agriculture the last paragraph, which substantially recommends conferring the elective franchise on woman; and

Whereas, The majority of reports from State and Subordinate Granges concur in the statement that without the assistance of woman the Grange would not exercise the influence it does, in improving the farmer's condition; and

Whereas, The Constitution of the U. S. confers the elective franchise on the uneducated negro of the cotton plantation and denies it only to women, Indians and Chinese, thereby creating the impression that the mothers of the great American people are the mental equals only of those races, and the inferior of the negro and European alien; and

Whereas, In our opinion woman would not so earnestly support the Grange, only she sees in it the readiest means of obtaining this blessed boon of freedom, for which her forefathers fought and bled and died; therefore, be it

Resolved, That San Jose Grange, No. 10, views with sorrow and indignation this retrograde action on the part of the National Grange.

Resolved, That the National Grange violated the spirit of paragraph 7 of our Declaration of Purposes, which states that "we proclaim it among our purposes to inculcate a proper appreciation of the abilities and sphere of woman."

Resolved, That copies of these resolutions be forwarded to the State and Subordinate Granges of California and the State Granges of the East, and all legitimate means be adopted to induce the National Grange to reverse its decision at its next meeting, and assist in placing woman in her proper sphere, viz.: the political as well as the mental and moral equal of man.

LIZZIE S. WOODHAMS,
MRS. E. O. SMITH,
MRS. L. J. WATKINS,
W. C. KINGSBURY,
FRANK DUNN,
Committee.

TEMESCAL GRANGE.—At the regular meeting of Temescal Grange, to be held Saturday, Feb. 19th, at 2 P. M., the first and second degrees will be conferred upon candidates. Our genial brother, Daniel Field, from Maine, of whose visit we last week made mention, is likely to be there with his good wife, and added

interest and pleasure may be anticipated from their social presence. A goodly attendance of members and visiting Patrons is desired and hoped for.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Patrons and farmers everywhere have good reasons for rejoicing over the passage of the bills regulating interstate commerce, and that creating the Department of Agriculture and Labor, with its head a member of the President's Cabinet. All fair-minded persons must admit that it was in the Grange years ago that both these important measures first received attention, and more than all other influences combined has the Grange created and crystallized the public sentiment that has resulted in these important forward steps—progressive steps, that must in either case bring good fruits, not only to the great productive interests of our country, but to the transportation companies and all other interests that depend so largely for their success upon a prosperous agriculture and a fair and efficient commerce between all our States. Now let farmers and all good citizens give these new departures cheerful and hearty support, and as they are tested by time and practice, needed changes and additions may be made that will make them still more effective and useful. As Patrons let us not be satisfied to rest upon our laurels, but forward to other fields that must be won. Uniting faith with work, so "that each to-morrow find us farther than to-day."

Inasmuch as the Grange was recognized in the appointment of Bro. Norman J. Colman to the position of Commissioner of Agriculture, and his department has recognized the Grange, and seeks a still closer union and co-operation with our Order—that through it *all* farmers may be the better served—and as it was in the Grange that the idea of having agriculture represented in the President's Cabinet first took form, it would seem, "in the eternal fitness of things," that Bro. Colman should be the *first* to represent the farmers in the councils of the nation. So far as the Grange is concerned, "so say we all of us."

Agriculture pays the greater part of the taxation that supports our country, and should receive the practical, fostering care from Government, both State and National.

At the meeting of the National Grange in Boston, Nov., 1885, the following was adopted:

Resolved, That in view of the past action of the National Grange we still insist that the interests of agriculture demand that the Commissioner of Agriculture should be clothed with additional powers and more enlarged jurisdiction, so that all the varied productive interests of the country may be protected and developed; and we claim that the office should be raised to a position in the Cabinet of the United States. * * * We also favor such National aid as may be necessary to establish Agricultural Experiment Stations in the several States in this nation so far as practicable, to be placed under the jurisdiction of the Agricultural Board of officers of the several States.

Carlyle said, over a third of a century ago: "America, too, will have to strain its energies in quite another fashion than this, to crack its sinews and all but break its heart, as the rest of us have had to do, in thousand-fold wrestles with pythons and mud-demons, before it can become a habitation of the gods." We are just now beginning to grapple with the "mud-demons," and if all the moral and intellectual forces of the nation are not rallied the contest will be a doubtful one.

In several States we learn that Bohemian oat-swindlers are again at work. Sometimes they are using the same scheme with some wonderful new wheat. Patrons *will* not, and farmers *should* not, be caught with their well-baited hooks. Besides the many warnings given by the agricultural press, the National Grange has given the "sign of caution" in these words: "The very nature of the proposition and the provisions contained in the by-laws of these speculating schemes are enough to condemn them in the eyes of all thinking men. But the isolated condition of the American farmer renders him too often an easy victim to the wiles of the oily-tongued canvasser. We desire to warn Patrons everywhere against this and kindred schemes for securing their hard-earned dollars. There is, and can be, no good in it."

"*Think* more, and then *act*, for the inquiry is not made so often to learn what men or organizations say, as to know what they *do*. When the history of this Order is written the historian will be concerned to learn and record what you accomplished rather than what was said."—*W. H. Toothakre, Past Master Kansas State Grange.*

Progress.

Four more new Granges: Lake, No. 812, Luzerne county, Pennsylvania. Elk Creek, No. 506, Otsego county, New York. Pognonock, No. 53, Hartford county, Connecticut. East Blackstone, No. 137, Worcester county, Massachusetts.

Adams Grange, No. 929, Decatur county, Indiana, reorganized, and is now in tip-top working order. A number have joined who never joined before, and are manifesting a deep interest. One is a finely educated young man, who has long been a bitter opponent, but has seen the error of his way. (Grange papers did it.) This time we have come to stay.

Fulton Grange, No. 66, Pa., reports purchases during the past year to the amount of $7762.19, about $100 per member. If all Patrons in the State had done as well it would have amounted to about one and one-half millions of dollars.

The Patrons of the District Grange of Northern Virginia have started "The Patrons' Mutual Fire Insurance Co." Only the property of "Patrons in good standing" is insured. Loss of membership in a Grange loses membership in the insurance company.

Capital Grange, No. 113, Concord, N. H., had 18 members for the fourth degree on their anniversary night, Jan. 25th.

"To the field go forth, O reaper,
There you will find golden grain,
Ready, waiting for the sickle,
Ripened by the sun and rain.
Go, the harvest sun is glowing,
Let not seedtime be in vain,
Ever ready, O thou reaper,
Gather in the golden grain."

Grange Items.

We note in last week's *Patron* that owing to the exhibit of State products which W. M. Johnston made at the National Grange, he is besieged with letters of inquiry from various quarters about California, all which he answers to the best of his ability and leisure....That Sister Sarah A. Daniels, a faithful charter member of Montezuma Grange, passed from earthly life Jan. 21st....That the San Jose Grange at its last January meeting initiated two members in the third and fourth degrees.

A GRANGE ENTERPRISE.—We suppose that there can be no objection to alluding to the wise movement which resulted in the building of San Jose Horticultural hall, and the holding fairs therein, as a Grange enterprise. The effort was first put forth in the Grange and Horticultural Society as a joint effort, and nearly all those who are rendering such efficient service as directors this year are members of the Order. We allude to the matter with satisfaction, as a Grange undertaking and as an exponent of what can be done by Patrons in many places and in many ways, if they will unite forces and push ahead together.

ROBINSON M. JONES has been appointed by the President to be postmaster at Chico.

AGRICULTURAL NOTES.

CALIFORNIA.

El Dorado.

FOOTHILL FRUIT.—Grizzly Flat Cor. *Republican:* I have known the orchard of James T. Barney for 13 years, and cannot call to mind a failure of crops during that time. This orchard is in Range 14 east. Wm. Frey, at Mendon, about the middle of Range 13, in 1886 produced 45 tons of apples, which he is now hauling to Plymouth, Amador City, Ione and Galt, and selling at the rate of $1.50 per box, while fruit produced near those places is offered at 50 and 75 cents per box. Men owning large orchards in Sacramento county drive to our orchards in Mountain township, furnish boxes, pack the fruit, and pay us for it at the rate of $40 per ton. Whether the elevation of the soil makes the difference in the fruit, I do not know; if there is any difference in the productiveness of soil from west to east in this county, I fail to see it. Each belt, perhaps, of one or more miles may have its own specialty of production. We do not pretend that we grow oranges at Grizzly Flat; in fact, we have never tried.

Humboldt.

STOCK DOING WELL.—Correspondents of the Eureka *Standard*, the latter part of January, give good accounts of cattle on the ranges near China Flat and along the Lower Klamath.

Los Angeles.

MOIST LANDS PROSPERING.—Compton Cor. *Times:* Compton, Westminster and Artesia are the only self-supporting districts in Los Angeles county, and our surplus goes largely toward the support of the seat of the county. Our dry years are our best years; then our produce brings the highest prices; then our alfalfa hay sells best; there is a rush for our big pumpkins, and your worn-out horses are sent to our pastures green to rusticate and recuperate. We send you butter and cheese, and our steers make your best cuts of sirloin and porterhouse. The cars are crowded with our fat hogs, and to-day five large warehouses are filled with barley, and the farmers' cribs are filled with the golden corn and their pockets with golden coin. If you want a carload of potatoes send your order, and fresh-picked strawberries, too. We challenge the whole United States to beat us on deciduous fruits. I can show you oranges one mile west, and again the same distance south of Compton, sweeter and cleaner than you can produce in the vicinity of Los Angeles. On this same tract we have grapes of all kinds, equal to any in the county. The willow wood that you burn in the city nearly all comes from Compton, and soon will supply you with eucalyptus. Our young groves are growing splendidly. We do not depend upon sewage for irrigation for vegetables, but when we need water for that purpose or any other (and that is our beverage), we uncap our artesian wells, and lo, Moses' rock and rod is a crude invention beside us, while we have added all the modern improvements.

San Bernardino.

BARRING OUT BUGS.—Riverside *Press and Horticulturist*, Feb. 5: The carload of shrubbery sent to this city from Oakland was thoroughly inspected Monday by L. M. Holt and A. S. White, the legally appointed fruit-pest inspectors for this district, and two distinct kinds of scale were found on it. The stock was condemned and put in charge of Marshal Morse, fruit guardian, who has notified the owners that it must be removed from the city within 24 hours.

CONDITION OF THE ORANGE CROP.—Wednesday afternoon, accompanied by Mr. Skelley, we visited a number of orange orchards from W. P. Russell's down as far as Van Fleet's, and made a thorough inspection of them to ascertain the amount of fruit held by each, its condition and the amount of damage by frost. We not only found the orchards in excellent condition, carrying a full crop of very fine oranges, but the marks of the frost were almost imperceptible. As these orchards are scattered through a wide extent of territory, they are a fair test of the crops between the extreme points mentioned, both as to quantity and quality of fruit. There are some orchards in another portion of the city that have not escaped so thoroughly the late cold wave, but at the worst the percentage of loss will be very small, and the amount of good fruit shipped from Riverside this season will not, we think, be less than last year.

Santa Cruz.

EDITORS PRESS:—It commenced raining at 9 P. M., Thursday, and has rained constantly to this hour, 9 A. M. of Saturday. From yesterday at 9 A. M. to 7 o'clock this morning it rained 7½ inches. Thank God for the glorious rain! The San Lorenzo river has been up high, booming, all the time since 2 o'clock yesterday, and still it pours down.—I. W. PEERY, *Lorenzo, Santa Cruz Co.*

Solano.

RAIN AND FRUIT.—EDITORS PRESS: We got six inches of rain this last storm, making 12 inches to date this season; so the fruit crop is assured, as far as regards rain.—J. S. SHEARMAN, *Vacaville.*

Sonoma.

THE ITALIAN SWISS COLONY.—*Democrat*, Feb. 5: Olive roots which are estimated to make 4000 trees are imported from Italy and will be planted along the roadways and drives throughout their highly cultivated vineyard, also on each side of the railroad track that passes through the ranch, besides some 20 acres are being planted to olives. Two hundred orange trees will be put in the ground that surrounds the handsome residence of the manager, Mr. Mechi. Improvements are continually being made.

Tuolumne.

EDITORS PRESS:—The long-looked-for rains are upon us, and more overhead. Crops among the foothills did not suffer much from the drought, but a continuation of such dry, cold weather would have caused a partial, if not a total, failure. As it is, with spring showers after the present refreshing, a crop is insured beyond peradventure. Business, which had declined by reason of dry weather, is now springing into new life. Man feels encouraged when farmers are prosperous. Even San Francisco depends more upon farming than she is willing to allow. It is hoped that this rain is general, so that the great plains may receive a baptism. It takes a small fortune to seed most of the farms, and when a failure takes place, few are able to stand the strain. That is one reason why so many fine farms are burdened with mortgages. A failure means a second small fortune for a second seeding. All this is a heavy load to carry, which is apt sooner or later to break down the home altars. Wheat being the only industry of importance upon the large ranches, there is nothing to fall back upon; whereas, the foothills have a variety of means to make a living. It may be more humble, but nevertheless it is less liable to change and bankruptcy.—JOHN TAYLOR, *Chinese Camp, Feb. 6th.*

Ventura.

SIGNIFICANT SAMPLES.—*Free Press:* M. D. L. Todd raised a field of pumpkins that had to be loaded on sleds by the use of skids. The heaviest weighed 253 pounds. J. H. McCutcheon in gathering a crop of beets October 5th from seed sown in February, weighed one that kicked the beam at 81 pounds. We have had on exhibition at the *Free Press* office a dozen ears of corn, picked at random, that weighed nearly 24 pounds.

Yolo.

GEESE GOBBLING UP THE GRAIN.—*Record-Union*, Feb. 3: A farmer from Hungry Hollow states that that section is fairly overrun with wild geese. This invasion is doubtless due to the dry condition of the tules where they usually stay. It never happened before, save during the year 1871, which was very dry. What makes the grain an easy prey is the fact that, owing to the dry season, the land is plowed only to the depth of about six inches, and the geese have no difficulty in finding it. There is a large number of men busily at work with guns, etc., "herding" the geese from the grain-fields. The farmers gladly welcome all sportsmen.

NEVADA.

STOCK PROSPECTS.—Reno *Gazette*, Feb. 3: W. S. Bailey, the cattleman and rancher of Churchill, says business is looming up in good style around the sink of the Carson. The cattle and sheep are in excellent condition—as good as they are usually in early fall. As strong and hearty as stock now is, there can be scarcely any loss, no matter how severe the spring might be. Mr. Bailey thinks that there has not been a better outlook for stock for many years than there is at present.

New Subscription Terms.

Our recent new terms for inducing payment of subscriptions in advance are meeting with favor in all quarters. New subscribers are coming in and old patrons are again entering their names.

We are confident of greatly increasing our large list of subscribers within the next few months.

A few subscribers have complained of paying at the rate of $3.50 when fully one year in arrears. To induce all such to settle up, we will, *during the next 30 days*, give all such the privilege of paying all back dues at the rate of $3.25 per annum.

Jan. 22, 1887.

Vacaville Notes.

EDITORS PRESS:—After a long time, winter seems to have set in in earnest. It commenced raining here last Thursday night, and kept it up pretty steadily until Saturday afternoon. The hills are covered with snow, and the air is very cool for our boasted tropical climate. The weather has been pretty cold for some time past, though there has been very little ice or frost here this winter. Almond trees are in blossom, but the cold weather has kept the blossom buds back generally. There has been four and one-half inches of rain in Vacaville the last storm, and nearly six inches two miles west near the hills.

Pruning is getting pretty well along. This has been a fine season for pruning and burning brush. Grapevines are generally burned in the vineyard, though some haul them out with a sled or wagon. I think it would be a good thing for the vineyards if some one would invent a machine something like a feed-cutter, that the vines could be run through and cut up into small pieces. They would rot in a few years if covered up, and be good manure for the ground.

People are getting notions in regard to the use of manure different to what they had 20 years ago. I have seen farmers haul the manure from their barn and pile it in the road, rather than put it on their land. Several of our orchardists have been experimenting with super-phosphates on their ground. This manure is said to be composed of blood and bones dissolved in sulphuric acid. Formerly it was made by grinding the bones, but the particles of bone would lie in the ground for years before decomposing enough to benefit the trees or vines. F. Buck has used some of this manure, and says the effects are wonderful. He put some on a row of corn and that row grew 18 inches higher than the one adjoining it; and if it is put around a tree or vine its effects will very soon be seen. Mr. Buck seems to think that it is of more benefit in forming fruit than wood.

Joe Bassford says he put some on a number of sick grapevines last year, and the difference in the growth of those vines that were manured and those that were not could be seen from the hilltop half a mile away. He says that some old apricot trees on which he used the super-phosphates made a larger growth than for several years past. Mr. Bassford thinks young trees do not need it, but old trees or vines that are past their prime are greatly benefited by the use of super-posphates. About 1000 pounds to the acre are generally used, and it costs $30 per ton. Two and a half pounds to the vine is said to be as good as a large wheelbarrow load of stable manure. G.

Vacaville, Feb. 6, 1887.

A Fine Japanese Orange.

We have tested and are very favorably impressed with oranges brought us by H. E. Amoore, of the Japanese Tree Importing Co., whose office is at 120 Sutter street, in this city. The oranges, although more than a month from the trees, having been plucked rather green in Japan, were of very sweet and agreeable flavor. The orange is apparently of the Mandarin type, and the most desirable we have seen. It is named the "Oonshiu." The Japanese Agricultural Association of Tokio says in its sixth annual report:

The "Oonshiu" orange is of medium size, rather large, oblate; rind thin, smooth, deep orange color; pulp sweet, juicy, most delicious, containing hardly any seeds or seedless. It is mostly esteemed for its excellent qualities for table use, as well as for being seedless—the *best* variety of Japanese oranges.

This description seems to fit accurately the samples shown us. They were about two inches in diameter, and we are told they sometimes reach three inches. The skin separates easily and cleanly, and the fruit must become popular. The company has just made a large importation of trees, which have been examined by State Inspector Klee, and are favorably spoken of by him.

LEGISLATIVE BILLS.—We are indebted to Hon. George Steele, of San Luis Obispo, for a full file of bills now before the Senate, and to Hon. I. A. Wilcox, of Santa Clara, for a similar file of Assembly bills. If bound they would make a volume as thick as an unabridged dictionary, and yet the law-makers are supposed to digest all the propositions in them in 60 days. We thank our friends and sympathize with them at the same time.

THE Sour Orange Stock, imported from Florida by Twogood, Edwards & Cutter, of Riverside, has already won considerable notice and reputation in the State. W. R. Strong & Co., of Sacramento, have the sole agency for Central and Northern California, and are prepared to take orders for Navel, Tardiff, Pineapple and other choice varieties on this now celebrated stock.

JOHN ROCK'S NURSERIES.—Our readers can hardly overlook the announcement of John Rock's nurseries in our columns. Aside from the standard varieties of fruit, we know Mr. Rock has a collection of new varieties which are worth attention, and his stock of ornamentals, plants, shrubs and trees is vast and varied.



The Eggs that Never Hatch.

There's a young man on the corner,
Filled with life and strength and hope,
Looking far beyond the present,
With the whole world in his scope.
He is grasping at to-morrow,
That phantom none can catch;
To-day is lost. He's waiting
For the eggs that never hatch.

There's an old man over yonder,
With a worn and weary face,
With searching, anxious features,
And weak, uncertain pace.
He is living in the future,
With no desire to catch
The golden Now. He's waiting
For the eggs that never hatch.

There's a world of men and women,
With their life's work yet undone,
Who are sitting, standing, moving
Beneath the same great sun,
Ever eager for the future,
But not content to snatch
The Present. They are waiting
For the eggs that never hatch. —*J. M.*

The Senator's Daughter.

CHAPTER VI.

[Written for the RURAL PRESS by SARAH CAMPBELL SANFORD.]

The turn-out belonged to Mrs. Secretary Blank, and the note was an invitation from that lady to assist her in receiving New Year's calls at her elegant mansion. You see, with all her magnificence and style, she had a tender woman's nature, and her heart was touched with compassion for a motherless country girl; so she included me in her bevy of girls to make her reception gay and youthful. All girls enjoy beautiful dresses and handsome furniture.

Mrs. Blank sent her carriage, with obsequious servants, to conduct me to her house. She welcomed me very cordially, and introduced me to a group of young ladies in full dress. Mrs. Cecil had seen to it that I was up to the mark in that respect. A handsome black lace over a mauve silk, and mother's opals were worn.

There is no need to tell how the day was spent; the carriage-loads of gentlemen who tarried just long enough to say a few words and partake of the refreshments. I was made heart-sick and sore to see the girls proffer wine, and drink with the gentlemen. At first, every one was clear and level-headed; but later, many of them, scarcely more than boys, could hardly speak intelligibly. Oh! when will women renounce this awful sin of tempting young men to their ruin?

I managed to keep away from the refreshment table—I was such a stranger, it was quite natural that the other girls should perform that duty. I was quite unhappy, not knowing just what to do in the matter. I feared I would offend my hostess if I should say anything. Besides, of what use was it to speak to half-drunken men?

All at once I thought that father was making the same round. Would he yield? Was all my labor and anxiety to be thrown away, after all, because of the thoughtlessness of the ladies of fashion? Oh! what responsibility, what opportunities, we women have! And our lost opportunities! when we cease to see as in a glass darkly; when the white light of eternity reflects upon our past life; when we think of the deed left undone or the word left unsaid which would have cost us so little at the time, and see, perhaps, the soul of some fellow-being weighted with sin that our influence has been instrumental in producing—oh, what could be worse than such remorse? May the women of this land wake up to their responsibility in this matter, and discourage this social drinking.

I worked myself into quite a fever over these thoughts. But at a late hour father and Mr. Somerville were announced, and they came down the long drawing-room together with clear, smiling faces and no fumes of wine befogging their brains. I always had a foolish habit of crying when gladdest, and I felt the tears welling up as father greeted me. He saw it, and drew me into the conservatory, where I put my head on his shoulder and cried freely.

Father petted me, as he always does. At last he broke the silence by saying:

"This has been a hard day for both of us, dear; and but for this young Somerville, who has been with me all day, I don't know what would have happened. Next to God, thank *him*, Madge. Oh, it's hard, this custom! The temptation of the cloak-room, which is brought to bear upon me daily, is nothing to this."

"The cloak-room, father! What is that?"

"The room provided for our wraps at the Capitol is arranged with closets, which are kept stocked with wines, etc.; and I am sorry to say many of the members resort to it frequently. So far I have resisted that temptation; but the hardest trial has been to-day. But young Somerville has saved me. I could not have held out against all those ladies alone."

"Does the Government furnish this wine, father?"

"Oh, no; a wagon drives up, a basket of champagne is taken in and the bottles arranged on the shelves. No bills are brought, no questions asked."

"O papa, papa! let us go away from this dreadful place. We cannot live here long without becoming accustomed to these habits, and then we will not be shocked; and who knows what may happen? Think of it; the Government permitting her law-makers to be so tempted and overcome by this evil."

My tears all dried in my indignation. I felt as if there was strength in my woman's arm to chastise the whole nation.

Father laughed at my indignant spirit, and proposed to return to the others; he said he would take me home with him.

So, after a short time spent in the drawing-room, Mr. Somerville, father and I were driven home together. The young man spent the remainder of the evening with us. Of course our conversation turned to the evils of the custom of offering wine to guests, and we learned that, many years ago, Mr. Somerville's grandfather, convinced of the evil of the whisky-barrel, poured the contents of his on the ground, and became a total abstainer. He so reared his family that there has never been a drinker among his descendants.

How my blood tingled as I thought: "This man has never tasted strong drink." He had taken a university course and traveled over a considerable portion of the world, yet never drank a drop of ardent spirits! There was no smell of alcohol, no whiff of tobacco, no heavy perfume, about him. He was a clean, clear-brained, jolly fellow, full of wit and humor. How happy I was to count this man my friend!

The very next day Alvar came to us. How well he looked! I had never seen him so robust. He was as crazy as ever over his project, and cared a great deal more about the buildings of the fair city than the pleasant people he met. He went about measuring and calculating. He took a great fancy to Mr. Somerville, who seemed to know and understand his enthusiasm about buildings. They talked of Doric, Ionic, Corinthian, Gothic and even Etrurian architecture.

Etrurian? Mother's opals were set in Etrurian gold; but I scarcely know of the country itself.

Mr. Somerville often illustrated his conversation with some fable. When I inquired the difference between the Doric, Ionic and Corinthian architecture, they all being Grecian and all using columns, he explained that the difference lay in the proportion and embellishment.

The tradition is, that Dorus, a being of fabulous birth, king of Achaia and of all the Pelopennesus, built a temple to Juno in the ancient city of Argos. Its proportions were supposed to resemble the figure of a man. The Ionian colonists, in building a temple to Diana, the huntress, imparted to their temple the delicacy of a woman. The Ionic architecture is the style of the Acropolis at Athens. The Corinthian, which came after, embellished the Ionic with delicate carving, supposed to imitate the grace and beauty of a young girl.

I listened to their long talks and made up my mind that the calling Alvar had chosen was a high one, after all.

Mr. Somerville gave us beautiful descriptions of the French and German Gothic architecture. He seemed to be impressed with the cathedral of Cologne, which, he said, is very appropriately called the "St. Peter's of the North." He told us of St. Ursula—called also "The Church of the Eleven Thousand Virgins." It is the tomb of St. Ursula, and the walls of the church and treasury, or golden chamber, are covered with the bones of her unfortunate companions. The legend is that St. Ursula, the daughter of a British king, made a pilgrimage to Rome, accompanied by eleven thousand maidens. On their way back to their own country they were massacred at Cologne by the Huns. Of course he described the cathedral of Milan, which is considered the finest Gothic edifice in Italy. He could not speak enough in its praise. He said, in whatever else our imagination might exceed the reality, it could not come up to this wonderful work of art.

Then Alvar inquired about Genoa. He said a letter he had lately received from there spoke in high praise of the architecture of that city. He mentioned the palaces whose flat roofs are adorned with shrubs and such trees as the orange, lemon, pomegranate and oleander, 20 feet and more in hight, refreshed by fountains which play constantly during the heat of the summer. Mr. Somerville said that the gates of entrance to some of these palaces are 40 feet high.

I could scarcely wait for a lull in the conversation to inquire who had written to Alvar from Genoa; and after teasing long enough he informed me it was Jessie herself—Jessie, who had neglected me during the past few weeks! Alvar refused to show me her letter, and said:

"If Jessie thinks it worth while to write you concerning architecture, she would do so; but it is quite likely she will not, as you never cared for the art."

He added: "Jessie is the only girl I ever saw who can appreciate a building, anyhow."

I felt inclined to resent this treatment, but, upon reflection, remembered it was Jessie, and not I, who had sympathized with him in the beginning.

Father seemed quite satisfied as to the turn of Alvar's mind, and appeared willing to have him absorbed in measurements and drawings instead of law and oratory. He said: "In June we will go over and join the Stanhopes for a summer vacation." Then Mr. Somerville invited himself to accompany us as guide.

One day father said to Alvar and me that he thought the afternoon session would interest even Alvar, as Senator Vara had given indications that he would make a speech.

"He is a man of very few words, but when he does wake up, it means something. You should be interested in him, Alvar, as he is a strong advocate of moral reform. You and Madge had better put in an appearance to-day."

"How do you know he will speak to-day, father?" said I.

"Well, different men appear differently just before breaking out. This Mr. Vara usually sits quiet; but I noticed an uneasiness in his manner; he ran his fingers through his hair, and managed to give his usual faultless attire a rumpled appearance; and the word went around among the older members: 'Vara is preening for a speech.' And I am told it will be something worth hearing."

Mr. Somerville joined us soon after we took our seats in the gallery. I immediately made inquiries about the gentleman in question, and he pointed him out to us, and also gave us a little sketch of his life:

"The Hon. Mr. Vara represents the Granite State. He is of Scotch-Irish descent. His father died when he was but two years old, leaving him to the care of a noble mother, who imparted to him her high moral character. During his early years he endured many privations and hardships—working during the summer months and going to district school winters. When 19 years of age he entered an academy, where he alternately studied and taught for three years, and then entered college. But his health failed; so he was compelled to abandon his college course. He entered a law office, acquired his profession, and in due season was admitted to the bar. In a short time he was sent to the Legislature, and, after being returned to the lower house several times, represented his district in the State Senate. Then, after a few years of private life, he was chosen to the United States Senate, where he has proved himself a strong advocate for a just cause. I once met the gentleman in his own home in a pretty New England village. I found the family a most delightful one. Notwithstanding they write 'Hon.' before his name, everything was plain and unostentatious; and although he has been in Congress for some years, the family has never visited Washington. The wife, a thorough Latin and Greek scholar, prepares her children for college, and at the same time manages her household affairs, regardless of the glare and glitter of the capital."

"No wonder her husband stands above all trickery and chicanery. So many public men are drawn into it through the extravagance of their families," said I.

"Yes," answered Mr. Somerville. "This man has no expensive establishment to support here. His salary is sufficient for his own and the family's needs, and he can afford to espouse an unpopular cause and legislate for the future, as well as for the present."

Of course Alvar and I listened closely to the masterly address. The little sketch of his life, and his advanced principles on the great question which was of so much importance to us, endeared him to us before he opened his lips.

Mr. Somerville went home and dined with us. The eloquence of the speech had so stirred our blood, we could talk of nothing else. After dinner we gathered around the grate, the gentlemen still engaged upon the same subject; while I sat near father with my eyes fixed on the glowing coals. An open fire has a peculiar charm for me, and often, as I gaze into the ever-changing shapes, I think of the old fire-worshipers.

"For each ravine, each rocky spire—
Of that vast mountain stood on fire!"

I seem to understand their adoration of fire—the symbol of that great source of heat and light, the sun. An open fire is the finest piece of furniture a room can contain. I never lose an opportunity of indulging in one. To lie on the hearth-rug and watch the fantastic shapes the consuming coal assumes is ever a delight to me. I listened in a sort of a dreamy way, with most of my thoughts on the fire.

I had lost the drift of their conversation, but was recalled by Mr. Somerville saying:

"Your remarks remind me of a picture in the Luxembourg gallery at Paris, 'The Decadence of the Romans.' It represents an orgie in the court of a temple in Rome. Revelers occupy the center of the court. The faces, in which linger little trace of the old Roman fire, are brutalized by excesses of every kind. Their heads of disheveled hair are bound with coronals of leaves and they are drinking, from graceful antique goblets, the fiery fluid that is destroying them. On lofty pedestals around stand statues of the grand old Romans who, from the calmness and coldness of the marble, look a more severe rebuke than words could give upon the swarm of revelers below. On one pedestal, a boy, young and graceful, but with red and swollen eyes, sits listlessly. On another stands a youth, insane with drink, and proffering a dripping goblet to the mouth of the statue. In a corner, as if quitting the court, is a group of Romans with careworn brows and with hands lifted to their faces in melancholy meditation. In the foreground, painted with all the splendor of Venetian art, is a vase, around which is a festoon of brilliant flowers, with one end trailing on the floor. In the background, between the columns, smiles the blue sky of Italy, the only pure thing left.

"In this picture of decadent human nature," continued Mr. Somerville, "is found a moral that needs no explanation. Should European customs, and the vice of the great European capitale, continue to invade our society, the wealthy youth of America could furnish one part of the painting. For the other, our revolutionary ancestors, looking forth with dismay from the pages of our nation's history."

There was a soft pause, broken only by the soft crackle of the falling coals. Then Alvar quoted:

"This is the moral of all human tales,
'Tis but the same rehearsal of the past;
First freedom, and then glory; when that fails,
Wealth, vice, corruption, barbarism at last,
And history, with all its volumes past,
Hath but one page."

"Not so," said father, reaching out and taking my hand in his firm, warm grasp. "There is a factor entering into this problem that the ancients failed to recognize. Our American youth will be saved from that decadence by our daughters. The nineteenth century will prove to the world 'that our daughters may be as corner-stones, polished after the similitude of a palace.'"

And thus, dear reader, we will leave them. No story can be completed until the Angel of Death comes to finish it. Therefore my little tale must remain unfinished; for my characters are real folks, and we trust they will live many years to come.

FINIS.

Washing the Dishes.

She stood upon a shady porch
Before a milk-white table,
And o'er her head a rose-vine wreathed
The brown, old-fashioned gable.
A pretty cotton gown she wore,
With sleeves rolled up, displaying
Her lovely arms, and on the breeze
Her curls were lightly straying.
This side a cage of songbirds hung,
And that a globe of fishes,
And butterflies flew in and out,
And hovered lovingly about
The maid that washed the dishes.

At first she dreamed not I was near,
And never ceased her singing,
While through the shining bubbles fast
Her dainty mop went swinging.
But soon she spied me, and I heard
A little rill of laughter,
And straight my heart sprang to her side,
And I sprang quickly after,
And in a moment more I'd told
My love, my hopes, my wishes,
And marked her bright eyes brighter grow;
And then—work must be done, you know—
She washed, I wiped the dishes.

—*Margaret Eytinge in Harper's Bazar.*

Our Calendar.

EDITORS PRESS:—We were showing our family the nice calendar and time-tables in the RURAL for Jan. 8th, when one of them asked if we had any direction in our mind as regards the seasons. The various ideas of the different members were quite amusing, and I jotted them down for others to compare with their own notions. The one who first mentioned the subject said that the months always seemed to him to go around in an elliptical track, with January at the top and February at the left, and so on around; and the days of the week were in the same form, with Monday at the top, Tuesday at the right, and so on down to the bottom, where Saturday came in, and all the left side was Sunday. In counting, after each ten, the next number deflected to the right, so that in going from the left-hand lower corner up the paper, he would come out at the right-hand upper corner. Another said that December always seemed at the top of a circle and the months went around to the right; and that Monday was always the first day of the week, and the days went in a circle the same as the months. Another said that the years commenced with January and seemed to go on in a straight line—no coming back at all—and the week days the same, with Monday as the first day and Sunday a day apart from all the rest.

MRS. H.

"How much for two grains of sulphate of zinc?" queried the boy of the druggist.

"Twenty-five cents."

"But my father is a doctor."

"Oh! Well, I must make a hundred per cent profit on such things, any way. Give me two cents."

"PA," said little Johnny McSwilligan, "there's a piece in the paper about 'Parasites.' What are they?"

"Paris-ites, my boy, are people who live in Paris. I think you ought to know that, and you in the third reader."

IT IS not generally known, but a dog was sold in Atlanta two years ago for $10,000. This price, however, was not paid in cash—the dog was swapped for two $5000 cats.

YOUNG FOLKS' COLUMN.

Ruth's Valentine.

[Written for the RURAL PRESS by REIS SAMSON.]

The bell had just rung for recess. Lena Adams, the richest and prettiest girl in school, took her lunch basket and ran out of the room to the big willow tree by the stream, where she was soon joined by her four dearest friends. "I say, girls," commenced Lena, when they were all settled, and their lunch spread out on a mossy rock, "day after tomorrow 'll be Valentine's day."

"Isn't that jolly?" cried Edith Low, trying to divide three oranges into five equal parts; "I just love Valentine's day, I always get so many beautiful valentines. Twenty-seven last year, and I know who sent every one."

"I am sure of one from cousin Horace," said quiet Anna Woods, "but I don't know of any one else who will take the trouble to send me one."

"I do, though, Anna;" here Lena gave her friend a kiss.

"Are you going to send many of the girls valentines this year, Lena?" asked Daisy Hucknall.

"Yes, just as many as I can; see, papa gave me this to spend on valentines," replied Lena, taking a red silk purse from her pocket and displaying a five dollar gold piece.

It was an old custom in Miss Sherwood's school for the pupils on the 14th of February to send each other valentines, which were laid on Miss Sherwood's desk before school, and delivered by her after the lessons had been recited.

"They have some beauties down at Walker's for a dollar, all covered with Cupids and flowers. I am going to get one for Miss Sherwood," said Clara Newton.

"Have you heard about Grace Chisholm, girls?" asked Edith, helping herself to another sandwich. "She is going to send all her old valentines to the Fruit and Flower Mission for the poor children. I'd like to do something like that, wouldn't you? Oh, dear," she continued, "here comes that tiresome Frances Hale; I wonder what she wants."

"Well, Frances, what is it?" said Anna, as a plainly dressed girl drew near the group.

"I am sorry to disturb you, girls, but Miss Sherwood has sent me to tell you not to sit so near the brook, and to be careful not to leave orange peel around as you did yesterday, or she will be obliged to make you take your lunch in the playroom."

"Disagreeable old thing!" said Daisy, as Frances left them. "I don't believe Miss Sherwood sent that message at all, and I'm not going to stir."

"Do you know, girls, I really believe Frances has made a contract with Miss Sherwood to do all her mean errands," and Clara laughed as though she thought she had said something funny. "I have a splendid idea," she continued, as she nibbled a piece of cream pie; "suppose we send Frances a valentine. I don't believe she ever got one in her whole life. There's a splendid one at the store called 'Charity Girl,' with a long piece of poetry under it about getting everything for nothing. What do you say, girls?"

"Capital!" cried Edith; "we'll put it in a fancy box with lace paper around it, and she'll think she's going to get a lovely valentine. It will be a sort of April fool, too, won't it?"

"I don't see what right Miss Sherwood has, any way, to take a charity pupil in her school," said Lena, tossing back her chestnut curls, and smoothing the lace ruffles on her dainty apron. "She can't certainly expect us to associate with her. Let's all go down after school and choose the valentine, the very ugliest and most appropriate we can find."

"You ought to be ashamed of yourselves, girls," cried Anna Woods, her blue eyes flashing with indignation. "What has Frances Hale ever done to you? On the contrary, she has always been ready and willing to help you whenever she could."

"Harken all ye sinners, come one, come all, and hear the celebrated Saint Anna preach; pews free," exclaimed Daisy. At this speech all the girls commenced to laugh, and Daisy, finding her wit was so much appreciated, kept on: "There will be a sermon every afternoon at 12 o'clock M. ——"

"I won't stay another minute with such heartless, cruel girls," cried Anna, jumping up. "I hate you, every one, and will never go with any of you again as long as I live."

"O Anna! Anna, please come back," said Lena, running after her and putting her arms around her neck, dragging her back. "We were only in fun. I didn't know you liked Frances so much, or I wouldn't have said anything about her."

"It's not that I care one bit more for Frances than you do, Lena," said Anna, wiping her eyes and accepting the pickle Daisy was holding out as a peace offering; "but I feel sorry for her, and you would, too, if you only knew all that I do about her."

"Well, tell, do, like a dear old girl, and we'll promise not to say another word about her."

"All right," commenced Anna, unbraiding her long flaxen hair. "You see Mrs. Hale has been making some aprons for my sister Ethel; so yesterday, after school, mamma told me to go for them. I took Ethel and went to the little house where they live; and O girls! I never felt so sorry for any one in my life before. They've got the tiniest house you ever saw, only four rooms, with scarcely any furniture, but just as neat as a pin. Mrs. Hale told me the aprons would not be ready for half an hour, and asked me if I would like to go in the other room and stay with her daughter till they were finished. I said yes, because I didn't like to say no. Then she opened the door of the next room and called out: 'Ruthy dear, here is a little girl who will stay and talk with you for half an hour.' Imagine how astonished I was when I walked into the room to see a little girl just about my age lying in bed looking so pale and thin, with such big black eyes they frightened me. 'Why, Mrs. Hale,' I said, 'I didn't know you had two children.'"

"'Yes, dear,' she answered, 'Frances and Ruth; but Ruth is an invalid and never goes out. Now I will leave you two to make friends while I go and finish my sewing.'"

"I didn't know Frances had a sister, Anna," interrupted Clara.

"No, I don't think anybody did. You see, we don't go with Frances, so of course she never told us anything about Ruth. If you could only see her," Anna continued. "She has something the matter with her spine, and the doctor says she will never, never walk. I stayed with her almost two hours, and she told me all about Frances—how good and kind she was to her, giving up everything to get a few books to please her. She said Miss Sherwood had known her mother for years, and when they moved here she offered to take Frances in her school and educate her for a teacher. When the aprons were finished and I was going home, Ruth begged me to stay, as she was so lonesome, and then she said, so cheerfully, that as soon as her mother could save $20 she was going to buy her a Bath chair, and Frances would wheel her all over the village, into the green fields and dark woods, and leave her with her books by a little stream until she came home from school; and she continued, with tears in her eyes, 'I shall be so happy to go out in the green fields. I get tired of lying in bed all day.'"

"I wish we could do something for her," said Daisy, when Anna had finished.

"I'll send her the prettiest roses I can find in the garden and some hothouse grapes," cried Lena.

"O girls!" screamed Clara, clapping her hands, "I have another idea. You needn't look at me so reproachfully, Anna; it's not like the other one; it's good this time. Suppose, instead of buying valentines for one another, we take the money and give it to Frances as a valentine to get Ruth a chair."

"You darling Clara!" cried Anna; "that will be just lovely. I am sure I am willing for one. Come on; let's go and ask the rest of the girls."

"Very well," replied Clara, returning Anna's enthusiastic hug; then in a loud, shrill voice she called out: "Girls, girls, come here a minute; I want you."

At this summons some 15 bright, laughing girls made their appearance from everywhere, and the five friends communicated their plan about the chair.

"Well," said Laura Henry, "I have only 75 cents, but I'll give it with pleasure, because I always liked Frances Hale."

"Grandpa told me he would give me a trade dollar, to-night, for valentines, and I'll give it all toward the chair," said another.

"I have a dollar I'll give, too," called out some one else.

"So will I," "and I," echoed a dozen shrill voices.

Here the bell for class rang, and the girls were obliged to go in, arranging to meet at Anna Woods' house after school and bring their money.

The 14th of February dawned bright and clear. Miss Sherwood, as she took her place at her desk, was surprised to see only one package, instead of the usual large pile of envelopes. She said nothing, however, but called the class to order and heard the recitations as usual. At half-past 11 the pupils were told to put away their books, and Miss Sherwood, taking the package in her hands, said: "Young ladies, you know that it has always been customary in our school for the pupils on this day to exchange valentines; but as I see only one has been put on my desk, I suppose you must have a good reason for omitting this pretty custom. Frances Hale, as this box is addressed to you, you may come and get it."

As Frances heard her name called, she left her seat and walked to Miss Sherwood's desk. She felt it must be some joke the girls were playing on her, for she knew no one who would send her a valentine. She broke the cord nervously, opened the box, and took out a little note which she read, then exclaiming "O girls!" she burst into tears.

Miss Sherwood gave a stern glance at the pupils, who were all smiling, went over to Frances' desk and took the box from her. What was her surprise to find a handsome valentine and four crisp five-dollar bills pinned to a little note which read: "A valentine to Frances Hale, from her schoolmates, to buy a Bath chair for Ruth."

There were tears in Miss Sherwood's eyes as she returned to her place, and after a few minutes' silence she said: "Young ladies, I propose we take a half holiday and go into town to buy Ruth's chair."

Of course there were no dissenting voices, and after Frances had kissed them all around, they put on their hats and started for Mr. King's store, where the chair was to be bought. When kind Mr. King saw the flock of girls and heard about Ruth, he said: "Well, girls, I am going to give you the chair for $15; the other five you may give Ruth as my valentine."

They were such a merry group of girls as they left the store, wheeling the chair, for nothing would suit them but that they must take it to Ruth themselves and take her for her first ride. One of the girls had brought a blue fascinator, and Mrs. Adams had sent a nice warm shawl. When Ruth made her appearance, carried in Mrs. Hale's arms, looking so happy and excited, the girls crowded around her, each begging to be allowed to push her chair. They spent such a happy afternoon together by the side of the stream Ruth had longed to see! Before they separated at five o'clock, after seeing Ruth home, she kissed each one of them and made the prettiest little speech possible, in which she said this was the happiest day she had ever spent, and she would always love the 14th of February because it brought her such a beautiful valentine, their friendship, as well as her comfortable chair.

Alameda.

GOOD HEALTH.

Whooping Cough—What Is It?

Whooping cough is a highly contagious fever, affecting the entire system, but specially manifesting itself in an inflammation of the bronchial tubes and a spasmodic cough occurring in frequent paroxysms. The whoop is due to the rapid coughing. This renders it impossible to draw in the breath until the coughing ends, when the breath enters strongly through the glottis, still partially contracted by the spasm. It rarely ends in less than six weeks; generally its run is longer, sometimes many months. As a rule, the physician merely aims to palliate the symptoms, guard against complications and abridge somewhat the attack. Says Flint: "It must be admitted that there are no means by which the affection may be arrested."

A writer in the *Lancet* for March, 1886, thinks that the prevalent treatment has been directed too much to the symptoms, instead of to the cause. Hence the medicines prescribed have simply had an anti-spasmodic and sedative effect—relieving the cough, but not reaching the disease itself. During a severe epidemic of whooping cough, he noticed, on several occasions, a marked alleviation of the symptoms, and then at other times a marked aggravation. This led him to suspect some powerful atmospheric influence at work. On consulting his charts, he found that the former condition corresponded to a high percentage of ozone in the air, and the latter to a very low percentage. Ozone being a natural antiseptic (preventive of putrefaction), he at once commenced to treat his patients with antiseptic medicines, taken internally. The result was very favorable. The method was confirmed by further experience, proving satisfactory in almost every case.

THE GASTRONOMIC VALUE OF ODORS.—The magic and value of gastronomic odors lie in this, that they stimulate the flow of saliva and other alimentary juices, thus making sure that the food eaten will be thoroughly utilized in renovating the system. This stimulating effect of gastronomic odors also explains the French saying that the appetite comes while eating, as well as our habit of reserving sweetmeats, nuts, cheese, etc., for the end of a meal, when rich odors are needed to brace up the flagging appetite. So great and salubrious is the effect of gastronomic odors in stimulating all the glands and functions of the body, that a dinner of savory, fragrant courses may produce in the diner a feeling of warmth and exhilaration resembling the effects of wine, but with none of the depressing after-effects following excessive indulgence in that liquor. And thus it comes about that the epicure in search of "ignoble pleasure" finds it the source of health and of general contentment with the world.

CARBOLIC ACID IN INDIGESTION.—In a recent number of the *Practitioner and News*, a correspondent says: "I have just passed through a severe attack of indigestion accompanied by colic, pyrosis, food eructations, epigastric weight, uneasiness, etc. Alkalies, muriatic acid, pepsin and pancreatic extract failed to give relief. Seeing your note in the *American Practitioner*, on the use of carbolic acid in acid eructations, etc., I took, with almost instant relief, two or three drops of the acid as soon after food as regurgitation, distention or acidity occurred. One dose was usually sufficient. On two occasions only was a second dose required. This I took half an hour after the first. I dropped the acid on a bit of fresh bread and rolled the mass into a pill. Since my own case I have given it in a similar case, with like good result. Here I added a scruple of carbolic acid to one ounce of glycerine. Dose, a teaspoonful."

LADY DOCTORS IN THE FIFTEENTH CENTURY.—Dr. Horowitz, of Frankfort-on-the Main, has published a work entitled "Judische Aerzte in Frankfurt," in which the learned author mentions the interesting fact that as long as 450 years ago, Jewesses practiced medicine in that city; they especially devoted themselves to ophthalmia.

DOMESTIC ECONOMY.

CLEARING WASTE PIPES.—The annoyances and danger arising from the stoppages of waste pipes in country houses are many, and the question how to get rid of the accumulations in the pipes is, therefore, an important one. Digging up and cleaning out is a costly remedy, as is also that of the plumber's force-pump. When the pipe is entirely stopped, empty it down to the trap, as far as practicable, by wiping out with a cloth. Next fill the pipe with potash, crowding it with a stick. Then pour hot water upon it in a small stream, stopping as soon as the pipe appears to be filled. As the potash dissolves and disappears, add more water. At night a little heap of potash may be placed over the hole and water enough poured on so that a supply of strong lye will flow into the pipe during the night. If the pipe is partially obstructed, a lump of crude potash should be placed where water will drip slowly upon it and so reach the pipe. Pipes that have been stopped for months may be cleaned out by this method, though it sometimes calls for three or four pounds of potash. It is a good plan to use potash from time to time in order to dissolve greasy deposits as they form, and carry them forward to the cesspool or sewer. Potash is valuable for this purpose, because, in addition to its grease-solving powers, it is exceedingly destructive to all animal and most vegetable matter.

TO MAKE A MERINGUE.—Take the whites of as many eggs as you like; four will be enough to cover a large dish. Allow one-half tablespoonful of sugar (pulverized is best) to each egg (if you use much sugar the meringue will be less light); and after beating them stiff, add the sugar. Beat only just enough to mix it in. Spread the meringue over a pudding or whatever you like, and set on the top shelf of the oven, which should be very hot. Watch it closely, for it will brown in a moment, and if not removed at once will burn. It should be only a yellow brown, not a dark color. It is best served as soon as it is perfectly cold.

BOILED EGGS.—Have ready a kettle of boiling water. Wash and put each egg into the water with a tablespoon so as not to crack the shell. Be sure that the water more than covers the eggs and is not boiling too violently. Boil for 3 minutes, if you like them soft; 12, if hard. Another way of boiling eggs soft is to put them in an egg-dish or deep-covered bowl. Pour over them water which you are quite sure is boiling (not simply hot), to take the chill off. Drain off this, and cover a second time with boiling water. Cover tight; set on the breakfast table and leave in the water about 10 minutes.

TO MAKE CHOCOLATE.—A dainty way to make chocolate is to set an earthen pot in a kettle of boiling water; in this place a quart of milk and cream mixed. Stir into this when it is hot a paste made by mixing three heaping tablespoonfuls of grated chocolate with a little cold milk. Let this boil for two or three minutes, and serve very hot. If the chocolate is sweetened, it is better not to add sugar, but to let each one add it at the table if it is not sweet enough; but if the unsweetened chocolate is used, two dessertspoonfuls may be put in while it is cooking.

APPLE SAUCE.—Peel and core tart, juicy apples, and cut them into even slices. Stew with water enough to barely cover them, crushing them often with a wooden spoon. When half done, add sugar; then boil down to a smooth, pulpy mass. Serve with nutmeg grated over the top. Never throw away a spoonful of apple sauce. It can be used for custard, and an endless variety of things.

A JAPANESE DISH.—First cook to your taste some vegetable, such as cauliflower, mushrooms or even potatoes, and mix with it some scrambled eggs. Take a nice fresh fish, get the bones out and soak the flesh in salt and pepper for, say 15 minutes; then put the mixture of the eggs and vegetables inside of the fish and steam the whole thing; try it while warm with Worcestershire sauce.

BUTTERED PARSNIPS.—Wash and boil in cold salted water from three-quarters to an hour. Skin and cut into round, thick slices. Have ready in a saucepan a tablespoonful of butter and one teaspoonful of flour, previously rubbed together, and two tablespoonfuls of milk. When it boils up put in the parsnips and shake over the fire until smoking hot. Serve hot in a covered dish.

ORANGE-WATER ICE.—Add a tablespoonful of gelatine to one gill of cold water; let it stand 20 minutes and add half a pint of boiling water; stir until dissolved, and add four ounces of powdered sugar, the strained juice of six oranges, and cold water enough to make a full quart in all. Stir until the sugar is dissolved; pour into the freezing-can and freeze.

CREAM COOKIES.—One cupful of sour cream, one cupful of sugar, one teaspoonful of soda and one of cream tartar, with a teaspoonful of lemon juice, a very little grated nutmeg and two tablespoonfuls of caraway seed. Mix lightly and roll out as soft as possible, using just flour enough to keep them from sticking to the board.

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Cattle—B. B. Lord & Son, Sinclairville, N. Y.
New Music—Oliver Ditson & Co., Boston.
Beet Seed—W. C. Damon, Napa, Cal.
Fruit Trees—Trumbull & Beebe.
Commission Merchants—Peters & Cowie.
Nurseries—E. Gill, Oakland, Cal.
Trees—Japanese Tree Importing Company.
Sunflower Seeds—R. Greene, Alma, Cal.
Dairy Machinery—J. S Woolsey, Gilroy, Cal.
Trees—James Hutchison, Oakland, Cal.

See Advertising Columns.

The Week.

The storm which stole into the State by way of Cape Mendocino at the close of last week brought snow and rain over the upper half of the State, refreshing and cheering all industrialists, and kept its southward course, drenching the great valley and adjacent regions, passed the Mojave desert and Sierra Madre mountains and poured a generous flood upon the waiting counties of Southern California. It has been a grand storm, and though it has perhaps disappointed tourists, it has toned up the whole productive and commercial life of the State and caused the doubt and gloom of apprehension to give way to confidence in a year's productiveness and prosperity. The season's figures do not, it is true, reach very high marks in some localities, but such a rain coming thus late will, if reinforced by moderate later supplies, close connection with the surplus left from the generous rain of last year, and insure a fair production in most parts of the State. As we write on Wednesday the storm seems fairly over, though the weather is not settled and more water may fall. A few season's totals to date at the places named are as follows: St. Helena, Napa county, 11.51 inches; San Francisco, 12.26; Niles, Alameda county, 11.10; Pleasanton, 5.54; Livermore, 6.15; Tracy, San Joaquin county, 2.50; Lathrop, 3.09; Stockton, 3.73; Brighton, Sacramento county, 6.16; Sacramento, 6.30; Auburn, Placer county, 14.36. At Southern California points it is still raining on Wednesday, Los Angeles having received over two inches in 24 hours. The dispensation is generally welcome and inspiring.

The Legislature.

The junketing season is over, and our Solons at Sacramento seem to be hard at work for the dear people. The insurance bills seem at present to engage the undivided attention of the legislators and lobby. These measures provide that foreign companies, against which the Legislature can freely legislate, shall not enter into a compact to fix rates of insurance. It is claimed that this creates a monopoly of the business and increases rates. If the principle is a good one, why will it not also apply to the home companies? Just what will be the fate of the bills at the present writing is impossible to say, but there is a general impression that they will pass both houses. The opposition is strong, but the question is one that touches the pockets of many members. It is idle to argue with a Senator or Assemblyman with a policy in his pocket, showing that his premiums have taken a decided jump.

The University bill, creating a tax of one per cent for its permanent support, has passed both houses, and will go to the Governor for his signature. This measure will forever lift that institution out of the slough of partisan strife and caprice. The amendment to the Constitution, introduced into the Senate, repealing the section for the collection of poll and capitation tax, was lost, not securing a two-thirds vote. Thirty thousand dollars is collected annually on an average by the operation of this law. Brooks' Pilot bill hangs fire in the House. The debate yesterday showed a strong opposition to it. It was contended that it discriminated in favor of foreign ship-owners as against American tug-owners. However this may be, every farmer in the State is interested in the reduction of pilot fees, as the burden ultimately falls on the producer. It is claimed that the San Francisco Board of Trade and Chamber of Commerce in 1883 adopted resolutions indorsing a similar act. The pilots have mustered in full force, and it is said they have a sack. The whole of the afternoon yesterday was devoted to a debate on McGowan's Slander and Libel bill. The bill permits a newspaper, upon written notification, to retract the libelous publication, after which the damages shall be nominal only. This bill needs to be carefully watched. If it passes in its present shape, there is not a man, woman or child in the State whose reputation would be safe. A scavenger-hunting journal could smut the purest woman in the land and escape the consequences by an apology. Such a law will invoke the pistol as a means of redress.

State Superintendent of Public Instruction Hoitt has apportioned the State school money to various counties. San Francisco receives $435,584.52; Alameda, $118,934.76; Marin, $13,829.76; Los Angeles, $97,666.20; Santa Clara, $61,681.20; Fresno, $24,596.04; Colusa, $19,533.36.

The Senate Committee on Viticulture will hold a meeting on Thursday, February 10th, at 7:30 P. M., at which time the committee will consider legislation affecting the wine interest and particularly Assembly Bill 254.

The contest over the division of Colusa county waxeth hot. Tehama county people want the children taught the effect of alcoholic stimulants on the human system, in the schools. Their heads are level. It is generally believed that Vrooman's dynamite bill will readily pass both houses. It is also thought that Wright's irrigation bill will become a law. A Sunday law memorial from the people of Lake county has been presented to the House. It is as follows:

"We, the undersigned, legal voters of the State of California, believing that the best interests of the State, material and moral, will be promoted by a suspension of business and a rest from labor on one day in seven, would respectfully petition your honorable body to enact such law or laws as may be necessary to secure to the people of the State this important object."

The Interstate Commerce Bill.

This bill has become the law of the land. The Attorney-General found no constitutional objection to it and the President appended his signature. It is too early to judge of the value of this measure. It is experimental, and should it prove too stringent or too lax in certain clauses, time will suggest the remedy. That it is in response to a popular demand goes with the saying. That it settles the transportation problem, or the right of the Government to exercise legislative and visitorial control over corporate powers, will hardly admit of a doubt. It proves, too, that when the people are united and in earnest, the great monopolistic powers are putty in their hands. The doleful prophecies of a big smash in railway bonds and shares have not been realized. The bears ran into the cockpit of the New York Exchange and forced the quotations for a few hours, but failed to fan a flurry.

The selection of the commissioners is the next thing in order, and then this piece of legislative machinery will be ready for operation. The board is to be constituted of five commissioners, not more than three of whom shall be of the same political party. The term of office is fixed at six years, except the first appointments, which are for two, three, four, five and six years. The commissioners are to receive a salary of $7500 a year each, and maintain an office in Washington City, but it is made their duty to hold meetings in any part of the country where needed. The welfare of the country will largely depend on the men selected to energize this movement, and they should be men who have made railroad law and the transportation problem a careful study, and whose integrity is above suspicion. As they will naturally be selected from different parts of the country, the importance of the Pacific Coast having a representative can hardly be overlooked. Our myriad mines, mills, manufactories, immense grain fields and almost illimitable fruit and wine industry give this coast a paramount claim. We certainly ought to have the ablest and best man that can be found on the coast, and as the President has proved to be quite an expert in making appointments, we shall be surprised if he neglects us.

SPECIAL LEGISLATION.—Perhaps the best feature of the New Constitution is the clause forbidding special legislation. The political brokers and boodle men have ever been restive under this restriction, as it deprives them of a vast amount of rich pickings. There is now a proposition before the Legislature to amend the Constitution so as to restore this ancient privilege. San Francisco is rapidly coming to the front as one of the leading cities of the Union, and the State is thickly dotted with young cities, towns and villages, flush with growth and prosperity. In all matters of grade and streets, granting street railway franchises and hundreds of other ways, there is a fine chance to raid the public crib. A clause permitting special legislation would let in a deluge of jobs and thieving schemes. The birds of prey would roost again in the lobby. The measure will hardly pass, and if it does it will give the people great pleasure to snow it under too deep for resurrection.

SORGHUM SUGAR.—It is telegraphed that at a meeting of those in the sugar interest held in St. Louis this week, an address from Commissioner N. J. Colman was read, in which it was stated that the total production of cane-sugar in 1885-86 was 3,197,000 metric tons, and in 1886-87 was 2,368,000 metric tons. The production of sugar from sorghum cane in this country from Europe had only commenced, but had already reached an amount equal to our total production of all kinds of sugar. The commission considers that, upon the whole, although the expectations of a year ago have not been realized, the outlook is favorable for a large production of sugar from sorghum by the adoption of a new process of diffusion and saturation.

THE EXPERIMENT STATION BILL.—The Secretary of the State Horticultural Society has received a letter from Hon. J. McKenna, M. C., dated at Washington, Feb. 1st, in which he says: "I am in favor of the Hatch Experiment Station bill. Mr. Hatch will bring it up in the House immediately after the pleuro-pneumonia bill is disposed of." Mr. McKenna's statement, in connection with the letters from others, printed last week in the report of the Horticultural Society, show that the California delegation is right on this measure, and we trust it will be brought up before the confusion incident to the close of the session sets in.

A "Local Agency" Fraud Checked.

One of those sleek cheats who prowl about the country in fine raiment, to cajole credulous farmers into signing negotiable paper, has come to grief. The last name he traveled under was John C. Colter. He had been around in Solano, Yolo, Colusa, Sutter and Yuba counties, representing himself as agent for the "U. S. Horse Hay Elevator and Carrier Co.," whose office purported to be at 23 Stockton street, S. F.

His game was lately described by the Vallejo *Chronicle* as follows:

He goes to a farmer and attempts to make a sale of one of the machines. The farmer refuses to make the purchase, when the agent offers to give him one provided he would act as agent and allow the machines to be stored in his barn. The farmer agreeing to this proposition, the agent gets him to sign an order for the machines when they arrive. The unsuspecting farmer affixes his signature and the agent departs. In about 10 days afterward the farmer is again visited by two persons representing to be members of the same company. They inform the farmer that they have called upon him about the payment of the 10 carriers he ordered. The farmer indignantly denies that he gave any such order, when the agent takes out the agreement which the farmer previously signed and which turns out to be an order for the machines. The farmer is then informed that the machines have been shipped and are at the depot, and unless he pays for them they will resort to law. The farmer becoming frightened, is led to believe that he has got himself into serious trouble. The agent tells him that he is sorry for the state of affairs, but lays all the blame on the advance agent. He then offers to compromise the matter by allowing the machines to remain with the farmer for six months, and all unsold at that time to be returned at manufacturer's prices. As security he asks the farmer for his note of $500 and gets him to sign the following agreement:

WHEREAS, Said ——— ——— contracted and signed a printed order for ten Horse, Hay, Grain Elevators and Carriers at $50 each, and this day accepts the delivery at Suisun Station, Cal., according to order, and executes his note for $500 as payment in full for same, with understanding that this agreement is not made to appear as an offset in any way to the above-named note: The company now agrees, on condition of said ——— ——— making his best efforts to sell the machines and then fails so to do, to take them back at manufacturer's prices, or any part thereof remaining unsold at the time said note becomes due; said ——— ——— to give notice to the company one week before his note becomes due of how many machines he has and wishes to return to the company. It is understood this agreement becomes nullified if any way made known to any other person.

The farmer, believing that he is getting out of a scrape, signs the agreement and gives his promissory note for $500. The two representatives, after securing the note, depart, bidding the farmer many kind farewells.

They would then go to a bank, get the note discounted, and leave the neighborhood with their booty.

The workers of this scheme succeeded in fleecing a number of parties in the region above named; but "Colter" finally woke up the wrong passenger, was overtaken in Tehama, arrested, and brought back to Woodland, where Judge Ruggles held him to answer to two felonious charges, one of having obtained money under false pretenses, and the other of conspiring with "Jones" and "Pritchard" to defraud. Failing to furnish $2000 bail, he was remanded to jail to await examination on Wednesday of this week. Like the hydro-carbon sharpers, he is a slippery knave, and it may prove difficult to make any legal charge stick to him—a charge of buckshot is not legal—so it still behooves our rural friends to hold to the one invariable rule: *Never write your name on any piece of paper for a stranger.*

U. S. ENTOMOLOGY.—We had a call on Wednesday from Mr. Albert Koebele, assistant of the U. S. Bureau of Entomology, who has just completed his work on the cottony cushion scale in Los Angeles. He is now busily engaged in preparing his collections for shipment to Washington, and it is possible that some results of the investigation may be given in the report for 1886 which will be out this spring. Mr. Koebele tells us unofficially that he expects Prof. Riley, U. S. Entomologist, to visit California next March or April. This visit has been long anticipated by the California horticulturists, and Prof. Riley's coming will be hailed with pleasure.

The Port of San Francisco.

For years our farmers have complained of the excessive freight rates and charges they had to pay on a cargo of wheat or other agricultural product. They have blamed the cupidity of the ship-owners and charter parties for charging such extortionate rates. No doubt they are as selfish as the average run of humanity, and inclined to make all they can out of the business, but it may be that they have to bear a little more than their share of this contumely. In coming in or leaving this port they have to submit to pilotage and tonnage fees that are simply enormous, and the dockage and wharfage rates are well known to be excessive. Acting in sheer self-defense in order to recoup and make the voyage profitable, they charge all this loss on the freights, which ultimately falls on the consumer and producer. Hon. Frank McCoppin, in a paper read before the Joint Committee of the San Francisco Produce Exchange and Chamber of Commerce a few months ago, and incorporated in their report, said: "It seems to me that, considering the comparatively limited docking facilities on the water front, the amount collected is very large, and it is claimed by some that it is so large as to be hurtful to the city's interest. It would be bad policy to drive commerce from our door by over-burdensome charges upon shipping, and perhaps to have to say hereafter of those ships:

"These, far dispersed,
on timorous pinions fly
To sport and flutter in a
kinder sky."

This question is one that should engage the attention of the agricultural, viticultural, and wool-growing classes, as well as the merchants of San Francisco, for it is only by their united, earnest, and persistent effort that any change for the better can be effected. The control of the water front of San Francisco belongs to the State, and the tariff of dues or revenue exacted from vessels and the goods they carry is fixed by the Legislature. Here is where the remedy must be sought. There is no sense in finding fault with the Harbor Commissioners, for their duties are prescribed by statute. The money that is collected for dockage and wharfage rates and tolls on goods is expended in furnishing harbor facilities and paying the salaries of the commissioners and an army of employes.

One remedy that has been suggested for the relief of our commerce is to declare the port of San Francisco free, and raise the needed expenses in keeping the harbor in good repair from a general tax. But this policy would most likely be opposed by the electors of Los Angeles, Santa Barbara, San Diego, Humboldt, and possibly other localities. It is almost certain they would never consent to be taxed for this purpose. We assume that as long as the State administers this trust the present policy of raising revenue will continue. But may not something be done in the way of economy? Since the organization of the State Board of Harbor Commissioners April 24, 1863, the total gross receipts to May 1, 1886, have been $7,699,534, and of this vast sum only $1,193,345 has gone into permanent improvements, namely: the seawall embankment, and all the remainder, $6,506,189, or 85 per cent of the gross receipts, has gone into salaries, perishable structures, and the vast waste and leakage incidental to all our public institutions. That a large sum may be saved, and the burden upon our commerce correspondingly relieved from reductions in rates of pilotage and tonnage fees, is generally conceded. This matter is now before the respective committees of the House and Senate, and perhaps our law-makers may wake up to the importance of removing this and the aforesaid burdens from the industries of the State.

Marking Fowls.

A number of inventions have been brought forward and a number of home-made methods devised for marking fowls so that breeding or individuality could be kept on record, but the one shown on this page seems to be a very simple and available method. It was invented by W. H. Wigmore, of 107 South Eighth street, Philadelphia, and the implement shown in the engraving is so small that it can be carried in the vest pocket. Marking fowls is of course valuable to a breeder, as we have indicated; it is also useful in identifying stolen birds, etc. The plan is, as the engravings show, by puncturing the web of the foot, and the punctures may be so arranged as to indicate many things on the record.

The cuts show 15 figures, and these can be made into any number of different ways of marking, or one breed may be marked 15 times differently, as shown by the dots in the cut. This can be increased by marking the skin of the wing. It is a great advantage for young chicks. The eggs are marked from the different breeds, and, as soon as the chicks are hatched, they are marked with the marker, and



WIGMORE'S CHICKEN MARKER.

by so doing you can tell their age and every detail in regard to them. The cut shows full size of the punches. They are nickel-plated, and have steel cutter and spring. There are two sizes—one for chicks and one for fowls.

THE demand for tubing and piping for natural-gas purposes is so heavy that prices have been advanced.

County Boundaries.

The Committee on County and County Boundaries of the Assembly has decided to allow the people of the section proposed to be divided from Colusa county to vote on the question. This will probably result in a division of the county. Colusa county contains 2300 square miles and is larger than either the State of Delaware or Rhode Island. There is considerable rivalry existing between the town of Colusa and the Willows, in the northern part of the county, but should the citizens of the aforesaid section conclude to separate, it will doubtless be owing to the fact that their interests can be more conveniently and economically served thereby. The chief interest that gravitates around this local agitation, should it result in a division, is the probable effect it may have as a precedent. Other counties may catch the division fever. In point of size, California is the second State in the Union, containing 155,000 square miles, and yet has only 52 counties, while New York has 60, Ohio 88, Virginia 100, Kansas 104, Missouri 114 and Texas 179. Only those who have taken pains to study their geography are aware of the territorial extent of some of our counties. San Bernardino has an area almost equal to that of West Virginia. The following table may give our readers an idea of the extent of some of our larger counties:

Counties.	Square Miles Land Surface.
Fresno	8,094
Humboldt	4,094
Inyo	10,156
Kern	8.100
Lassen	4,750
Los Angeles	4,812
Modoc	4,297
San Bernardino	21,172
San Diego	14,969
Siskiyou	6,078
Tulare	6,406

State.	Square Miles Land Surface.
Connecticut	4,845
Delaware	1,960
District of Columbia	60
Maryland	9,860
Massachusetts	8,040
New Hampshire	9,005
New Jersey	7,455
Rhode Island	1,085
Vermont	9,135

It is a little rough to compel a man to travel from 60 to 100 miles to put a deed on record or attend court as a juror or witness. This inconvenience may be patiently endured in a thinly settled county, but as the population becomes dense and business at the county seat increases, it would not be strange if the people became uneasy and demanded more compact county facilities.

INTENSE COLD NECESSARY FOR SOME FORMS OF VEGETABLE LIFE.—A marine alga of the Arctic regions grows at a temperature far below zero, and its spores disappear at a higher temperature. It thus appears that intense cold is necessary to the existence of some forms of vegetable life, together with extreme dryness, and this class of plants probably includes the cryptograms of red snow.

A Famous Ayrshire.

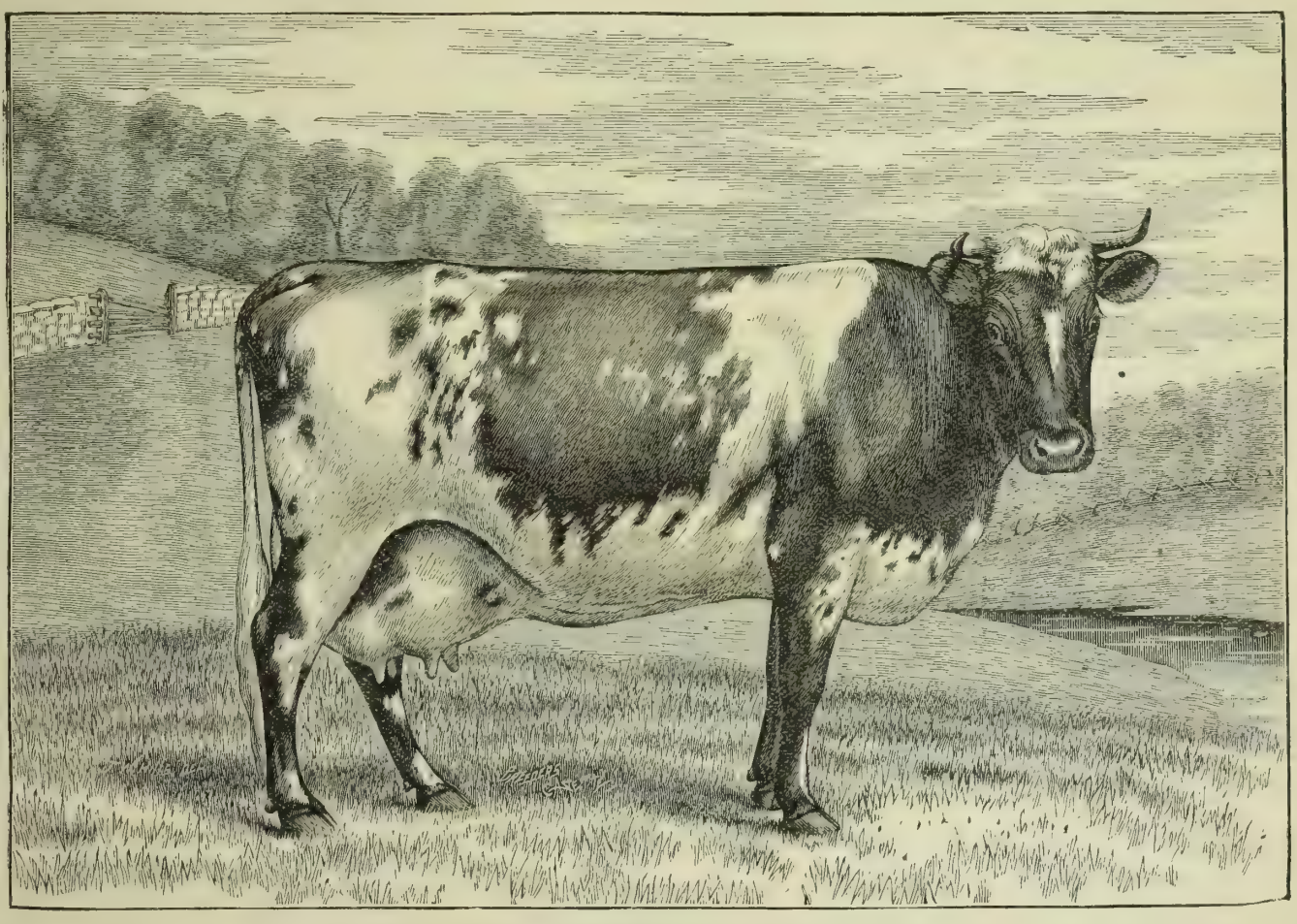
The Ayrshires are coming forward on the basis of accurate yield tests, which in the extent of its application at least is an American introduction to the science of dairying. We have given figures of long and short milking periods of various breeds, and this week we have an Ayrshire which has distinguished herself at the pail and scale. The cow is Alice Douglas, the property of Geo. A. Fletcher, of Milton, Mass. She was calved May 18, 1878. She was got by Edward Douglas, 1783, out of Stella Douglas 2d, 3848—a cow which gave 25½ quarts for many days, and for which her owner refused $500.

The cow is deep mahogany red, well marked with white, fine head and neck, forequarters light, body large, deep at flanks, wonderfully fine udder, carried well up, and reaching far forward; teats exceptionally good size and well placed; Flandrine escutcheon, skin fine, soft and elastic; her disposition is of the very best.

On March 11, 1886, Alice Douglas was milked dry at 9 P. M., and then milked at intervals of 8 hours for 7 days from that time, ending on March 18th, at 9 P. M., during which time she gave 393 pounds of milk. She was milked perfectly dry again at 5 P. M. on Tuesday, April 6th, and a test made from that time to 5 P. M. on Tuesday, April 13th, during which time she gave 407 lbs. 12 ozs. as follows: Wednesday, 64 lbs. 14 ozs.; Thursday, 54 lbs. 10 ozs.; Friday, 60 lbs.; Saturday, 60 lbs. 4 ozs.; Sunday, 57 lbs. 8 ozs.; Monday, 59 lbs.; Tuesday, 53 lbs. 8 ozs.

The cow stood in the barn with the rest of the herd, during the entire test, and had two feeds of rowen, one-half bushel of mangolds and one-half bushel of brewers' grains daily, besides the grain, which during the seven days she was fed as follows:

	Quarts.
Bran	44
Cornmeal	30
Ground oats	42
Oilmeal	6
Cotton seed	5
Total	124



THOROUGHBRED AYRSHIRE COW, ALICE DOUGLAS.

We have a letter from Mr. Fletcher giving another test of the cow as follows: One day, 62 lbs. 14 ozs.; 7 days, 407 lbs. 12 ozs.; 30 days, 1695 lbs.; 90 days, 4997 lbs.; 9 months and 20 days, 11,310 lbs. She has made in 7 days 10¾ lbs. of butter.

We have some good Ayrshires in this State, as our readers know who go to the fairs, but the breed has not the prominence it deserves, and we trust wider attention will be given to its claims.

TO CURE A HORSE OF KICKING.—The *Calistogian* gives this prescription its warmest indorsement: If you have a horse that is in the habit of kicking, put him in a narrow stall that has both sides thickly padded. Suspend a sack filled with hay or straw so that it will strike his heels, and let horse and sack fight it out. Be sure to have things arranged so that the horse cannot hurt himself. The sack will be victorious every time, and in the end the horse will absolutely refuse to kick the sack or anything else.

A PIONEER DAIRYMAN DEAD.—James Phœnix, a native of England, died January 21st at Santa Maria, aged 85. "Father" Phœnix brought his family to this State from Australia in '49, settled in Marin county, and started a dairy, which is claimed to have been the first in California. Butter was then $1.50 per pound. A dozen years later he moved to Santa Maria valley, where he pursued the same business throughout his life. He is eulogized in the *Times* as an amiable and practical Christian.

The General Principles of Farming.

Among the entertaining and practical addresses at the Contra Costa Fair last fall was one by Hon. Charles Wood, of Danville, on the general principles of farming. We take pleasure in giving it, almost entire, to a wider circle of thoughtful readers than it is likely to have reached through our excellent neighbor, the Martinez *Gazette*. Farmers who think, themselves, will be grateful for hints from one of their brotherhood who leads them to look for benefits where they may not before have thought of seeking and trying. After a few introductory remarks about fairs ancient and modern, Mr. Wood said:

The farmer of America, or rather of the United States, occupies a different position from that of the farmer of Europe, or of any other part of the world. In England he is generally a tenant paying rent upon entailed land, and his interest therein is simply what can be extracted from it, the thought of owning it never entering his mind. In France his ownership is so small, although preferable to the English system, that it is virtually but a garden, the census, a few years ago, showing 36,000,000 of acres divided into farms of not more than eight acres each. So in India, in the great valley of the Ganges, which to-day is the great bear—to use a term of the Stock Exchange—of the world's wheat market, the holdings of land to any one family do not exceed 10 acres, and these are allotted by government, the occupants barely gaining a subsistence as tenants, and not as owners.

Thus, the farmer of this country possesses advantages over those of any other in that he is generally the owner of the land he cultivates and is responsible to himself for his zeal and industry in its improvement. Thought and labor go hand in hand in its care and development. Now, ownership of anything, from some inherent quality in human nature, at least, carries with it a good deal of self-complacence and satisfaction, and there is perhaps no better source of genuine enjoyment and contentment. The man who is both the owner and cultivator of a farm has superior inducements for self-respect, self-culture and ambition to become educated in the best sense of the word. He has it in his power to become socially and intellectually, as under our free system of government he is politically and under the law, the peer of any person in the land, or in the world for that matter, and by our excellent common-school system, the means of education for his family accorded to the most affluent are brought almost to his very door.

Farms are out-of-door workshops and manufactories, assisted by the chemical and hidden-growth processes of nature in producing the great staples of life and the raw material which enters into the fabrics of nearly every industry, and farmers are capitalists, using the term in a broad sense, to the extent of their investments in land, implements, machinery and stock, the same as other manufacturers are. Farmers are employers rather than employes. They expect to make the most of their profit from the labor of others; hence, while in sympathy, perhaps, more than any other industry, in what is called the labor element, it is as material to their interest to obtain work done as cheaply, and with as much labor-saving device, as other manufacturers or producers. Nevertheless, a cheap and unsatisfactorily paid labor is not for the general benefit of a free nation where all have equal political and civil privileges, and, as good citizens, we should not advocate it. By superior knowledge of agriculture and by superior labor-saving implements and machinery, we must and can be beyond the hurtful competition of servile, cheap or unpaid labor of Europe, Asia or elsewhere.

The complaint of injustice practiced toward farmers in this country, as a class, has not always been based upon facts, and has frequently been more overdrawn than the facts would warrant. To the power and greed of capital has been attributed most of the evils and depressions under which we suffer, when, possibly, an honest investigation would show the evils to be magnified, and the cause of depression to rest elsewhere, sometimes even with ourselves. It is forgotten that farmers are all capitalists to the extent of their investments or productions, although combining these with their own labor, more or less. Take the cultivation of wheat, for instance: The land whereon it is grown is capital; the animals and their feed used for tillage are capital; the seed held over from the previous year is capital; the cost of labor bestowed on its culture is capital; the machinery and cost of running it is capital, and the labor of delivering it at the landings and depots is capital, and thus far the capital is in the hands of the farmer, though he may own but a moiety of it, and ought to receive fair returns for its use. The warehouses, the railroads and the vessels employed in its next step for concentration at the seaboard are capital, and their claim for proper remuneration must be recognized, and so on through every successive movement by land or sea, until the wheat reaches the mouth of the consumer, capital is used and those furnishing it are entitled to just compensation. Here, then, is the problem. Do farmers receive the average compensation for capital, labor and risk of loss of crops required in the production of wheat that others do in its subsequent movement? To that average compensation are the farmers entitled, and proper efforts to obtain it are legitimate, commendable, and, in fact, a duty. These observations apply with equal force to all the productions of the farmer, and it should be the aim of every one to find out if undue discrimination is practiced, and to remedy it if found to exist.

Our efforts may be only approximate in their results, because the inexorable law of supply and demand must be recognized in all transactions. If more wheat is raised than is needed for consumption within a reasonable period, as before another harvest, depression in price is the inevitable consequence; if less, increase in prices must ensue. If we seek a world's market in the great center of population, the available production of the world competing in that market is to be considered a factor. Should that production be in excess of the demand, the depreciation will fall mostly upon the farmer, for the reason the larger the crop to go forward, the greater the call for transportation for which owners can exact high rates of freights. But the endeavor should be made to get the world's market for our commodities, less reasonable carriage and cost of handling, and if to this end farmers ship wheat to Liverpool, wool to Boston, or fruit to Chicago or New York for their own account, rather than sell it at any intermediate point of transit, it is their undeniable right to do so, and no one should complain; and here it is that co-operation, if anywhere, should come in. Co-operation among farmers for the purpose of regulating prices in the world's great markets seems to be altogether impracticable, owing to the widespread area of production, taking in as it does the larger part of Europe, including Great Britain, part of Asia, Australia and much of America.

Overproduction in any of the industries is the cause, above all others combined, of depression in prices. Legislation may ameliorate or exaggerate, but does not often create them. The approximate ratio between production and consumption must be kept up, and to a certain extent is self-regulating. It should be one of our aims to so diversify our products that a failure in one or an excess in another would not be disastrous. The interests of city, town and county are identical and coextensive within certain limits. Each by fair exchange of its various productions ought to contribute to the general welfare of the whole.

Greater economy in productions in times of depressed prices rather than the production of the greatest possible quantity, must be the rule.

There is a growing opinion that wheat culture is, or is becoming, unprofitable, owing to lower prices as compared with the past. Perhaps this is true somewhat, but let us see if, while prices have decreased materially, the cost of production and subsequent handling has not been considerably lessened, although not in the same ratio.

The valuable tables of Mr. Montpellier, cashier of the Grangers' Bank, give the average price for wheat in 1874-5 at $1.62 per cental; in 1875 6 at $1.93½; average for two years, $1.77¾. By same tables the average price for sacks during the three months required by the farmer was at least 12½ cents each. Now take the average crop in this country to be 20 bushels or 1200 pounds per acre, the approximate cost per acre to time of sale, of the items showing greatest change, 10 years ago would be as follows:

Seed for one acre, 80 lbs, @ 1¼c	$1 40
Heading at least	1 75
Feed of horses and board of men	40
Thrashing, old system, nothing furnished but machinery and three men	2 00
Sacks 12½c each for 135 ctls	1 11
Storage $1.50 per ton, weighing when sold extra	90
Freight to S. F. from landings, $1.50 per ton	90
Commission on sales, 2½ per cent	53
Total per acre	$8 99
Approximate cost for 1886:	
Seed for one acre, 80 lbs @ $1.30	$1 04
Heading	1 25
Feed for horses and board of men	35
Thrashing, everything furnished by move	1 44
Sacks holding 135 lbs, 7c each	62
Storage per ton, including weighing, $1	60
Freight to Port Costa, not to exceed 50c per ton	30
Commission on sale, 25c per ton	15
Total per acre	$5 75

Difference in cost $3.24 per acre, fielding 1200 pounds, or 27 cents per cental, and in this estimate the cost of plowing, harrowing and hauling by the farmer to the landing or railroad is not included, which, if anything, is less now than formerly. So that if the productive capacity of the land has not been injured, there would at least be as much profit to raise wheat to-day at $1.50¾ per ctl. as in 1876 at $1.77¾, and if self-binders and combined harvesters come into general use the profit would be still the greater, and this comparison, perhaps, could be made in the other industries of the farm. Interest and taxes on a higher valuation of land are not taken into account, because the increase is offset by lower rates.

The general cost of living and supplying one's wants is much cheaper than 10 years ago, for the reason that everything that is required for consumption or use in life can be had at largely reduced prices.

Therefore there would seem to be no substantial reason why farmers should despond or complain of their lot as compared with humanity in general. Prices have probably touched bottom and are quite likely to react. Population and home markets are rapidly increasing, while the area suitable at least for wheat has about reached its limit, and it is extremely doubtful if the world, and certainly California, will ever see produced in any one season the equal of the wheat crop of 1880.

It is an astounding fact that although the population of the world is ever taxing its capacity to raise the staples that sustain life, it has never succeeded in laying up such a supply as would prevent it from starvation, if only a year's general failure of crops should occur.

One main question with us as farmers, and indeed as a community, for all are interested in it, is how farms can be managed so as not to impair their fertility, and, at the time, give happy homes and a fair return for capital invested and labor bestowed upon them. It is of the first importance that the land does not deteriorate in crop-growing capacity, for if $500 be made upon a field of wheat, and $500 lost in crop-producing qualities of the land, where is the gain? Old homes, barns and fences can be rebuilt, worn-out machinery and implements replaced with new and better, young stock raised to take the place of old and worn-out and aged farm animals; but when once the fertility, the cream of your fair acres, is gone, it can never practically be replaced. Hence bear in mind that too much care, labor and thought cannot be bestowed in keeping approximately the land in its pristine vigor of production. Mixed or diversified farming, as it is called, is the solution of the question, if there be any to it. Keep more live-stock and sell more on foot, in the fleece and from the dairy and poultry yard, and less in the wheat and barley sack.

Fellow-farmers, there are many other subjects it would be pleasant to consider with you to-day, but fearing to trespass upon your patience I shall take up but one more, and that is the keeping accounts and a record of the important transactions upon the farm. Accounts should not only be kept with persons but with things. The presumption should be that for every exchange of a commodity, no matter whether made with another person or into another commodity, an equivalent is received. Hence, for every debit on the ledger there should be a corresponding credit, and for every credit there should be a debit to some personal or impersonal account, and this is the essence of double-entry bookkeeping. If 10 tons of hay are fed to fattening cattle, the cattle account should be charged with its value, and hay account should be credited therewith. The first cost of your service, together with the pasture and grain to fatten them, should be charged to swine account, which in time should be credited with whatever hogs are used or sold, and so on through the various departments of the farm. From time to time comparative statements can be made so that we can know just what is being done. In this manner can one farm be managed intelligently, if not profitably, and perhaps, as the leaks and other sources of loss and avoidable expense become apparent, the profit and loss account may in time be made to exhibit the proper credit balance. Is it not a good plan to give the children, as they grow into manhood and womanhood, a chance to keep the books, thus being a means of education, making them more apt in figures, more systematic in methods, and at the same time giving them a correct knowledge of our financial affairs that is often withheld from them to their and our own detriment?

In conclusion, let us dignify and elevate our calling; let us assert equal rights and privileges without trampling upon those of co-ordinate industries; let us extend our knowledge of the business of the world that we may be benefited by it; let us educate ourselves and our children to better understand the problem of life and aid in its solution; let us encourage industry both mental and physical, putting thought with labor to produce the best results; let us beautify and adorn our homes that they may be more attractive to inmates and friends; let us do away with so much isolation—the bane of farm life—and cultivate more congeniality of feeling and sociability; let us assist each other in sickness and adversity. In a word, let us be better and consequently happier creatures.

Herefords Coming.

We have a letter from T. P. A. Williams, representing James Kay, Jr., of Hereford, England, that he will leave Columbia, Mo., about the middle of February with two carloads of thoroughbred imported and recorded Hereford bulls, cows and calves and heifers. There will be 14 yearling bulls, 3 two-year-olds, and the remainder of the lot cows and calves and heifers. He will rest the cattle for a few days at Winnemucca and also at Reno, Nevada, on arrival there. The cattle are out of the same shipment as the carload of bulls that Mr. Williams exhibited at the State Fair, Sacramento, and at the Stockton, San Jose and Reno fairs, and sold out. They will be offered for sale by private contract.

YANKEE SCHOOL-MA'AMS IN JAPAN.—Misses Mary and Isabella Prince, who formerly kept school in Maine, but have for some years been teaching in this city and at Eureka, have accepted an invitation from the Japanese Government to enter its employ as instructors. Miss Mary is to teach the Girls' Normal School at Tokio, and Miss Isabella will organize a national domestic school, to introduce American customs among the Japanese women.

A Kansan Captivated.

H. C. Whitley, a prominent citizen of Emporia, Kansas, who has just been visiting San Diego, writes home in measureless admiration: It is a task not easily performed to give an intelligent description of Southern California, for there is no means of comparison; its counterpart has not yet been discovered. The Almighty in His wisdom so disguised this land as to hide its many virtues from the view of man, otherwise the slope east of the Rocky Mountain Range might have yet remained a wilderness. It is easy to be seen, but California must be seen to be appreciated. It has no resemblance that I can discover in points of soil or climate to the Atlantic Slope. Here the air, as well as the ocean, is pacific. Here the elements are at peace. There are no winters except in name. It is summer all the year. Flowers and fruit have a vernal growth and perpetual bloom. Geraniums and tomato plants once started grow on, year after year, producing flowers and fruit until they stand like trees before you. Ten acres of land here, thoroughly cultivated, is believed to bring more profit than a 160-acre farm in ordinary cultivation in the Eastern States. Many crops are produced without water. In some localities irrigation is unnecessary to increase the growth of vegetation. After all that I have seen, it needs no further argument to satisfy me that whoever lives to see this coast 10 years hence will look upon a country 10 times more populous than it is at present. The country lying south of this city for about 15 miles, to the Mexican line, can be seen in its virginity, stretched out along and overlooking the bay. Improvements along this plateau have just commenced. In a few years it will be changed from a sunny desert to gardens of fruit and flowers. I visited a 10-acre fruit garden about six miles south of this city a few days ago, in company with Hon. Wm. Martingale and others. To say that it was grand and beautiful does not convey an idea of its appearance. No doubt the contrast, with its uncultivated surroundings, had much to do with the exhibition of its charms. A garden surrounded by an apparent desert shining forth like a diamond among cobblestones. The orange and lemon trees were only four years old, yet in full bearing, loaded to the very ground with bright golden and green fruit. The earth in the garden is kept moist by cultivation, and was even quite damp within an inch of the surface. This condition of the soil looked strange and unaccountable to me, but the fact was before me. Barley, grapes and many kinds of vegetables thrive and yield good crops without water. Potatoes once planted keep producing the year round, if care is taken to leave enough to seed the ground. People here look happy and appear to enjoy life. The climate is wonderfully exhilarating. Old men coming here from the East usually experience a change. They straighten themselves up and quicken their pace. Women who have passed the meridian renew their charms and go about wreathed in smiles, as they did in the heyday of youth. The children, partaking of the happiness of their parents, put on the appearance of fairies in solid form and help to keep the people young.

A Fortune for You.

All is new; capital not needed; you are started free. Both sexes; all ages. Wherever you live you should at once write to Hallett & Co., Portland, Maine; they will send you free, full information about work that you can do and live at home, earning thereby from $5 to $25 and upwards daily, from the first start. Some have made over $50 in a day. The best chance ever known by working people. Now is the time—delay not.

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An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

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Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied for colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

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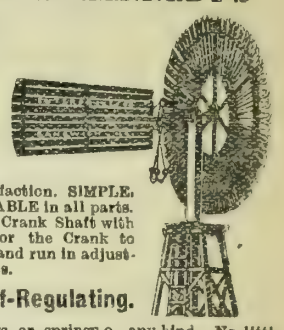
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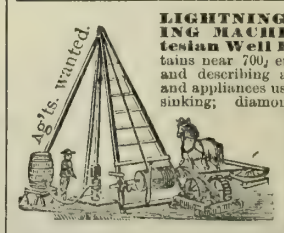
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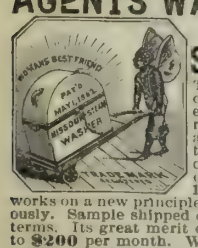
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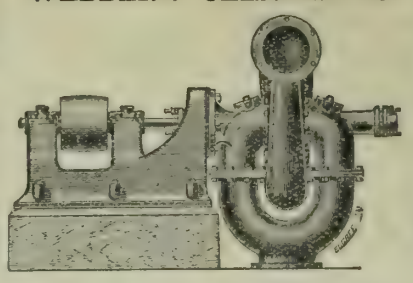
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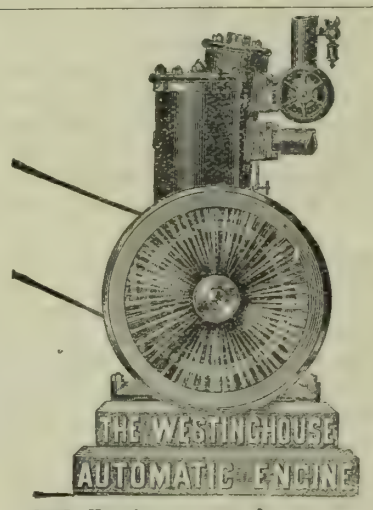
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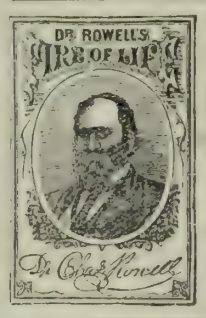


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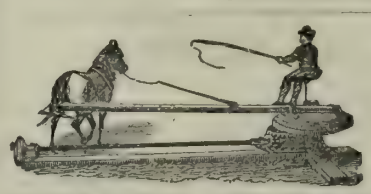
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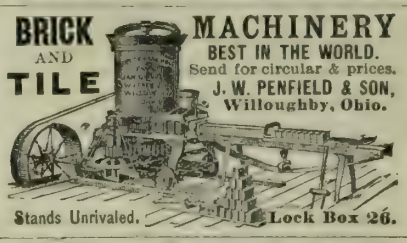
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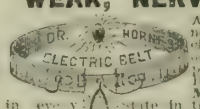
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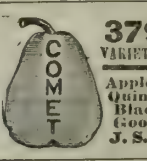
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GARDEN SEEDS. Catalogues Mailed Free.

Francis Brill, HEMPSTEAD, LONG ISLAND, NEW YORK.

Seeds, Etc., Continued on Page 138.

Riverside Citrus Fair.

At a meeting of fruit-growers and business men, held at the pavilion in Riverside on the 29th ult., it was decided to open their ninth annual citrus fair Feb. 22d. From the *Press and Horticulturist's* report we gather that the management of the fair was given into the charge of an executive committee consisting of A. S. White, J. G. North, C. W. Filkins, H. J. Rudisill, L. M. Holt, Orrin Backus, Geo. Crawford and G. W. Garcelon, under whom the finance, excursion and advertising committees were instructed to work.

It was voted without dissent to invite all orange-growing sections to show their fruit, and let the section that produced the finest fruit get away with the awards.

On account of insect pests, a resolution, offered by John G. North, was adopted, that fruit be admitted from all sections of the State subject to local inspection.

The gentlemen who have the matter in hand are experienced, earnest and apparently determined to make this year's display at Riverside the finest citrus fair ever held in California.

Premium List.

Class 1.—Best display of citrus fruits grown by one exhibitor in the State of California, $50; second best, $25; third best, $10.

Class 2.—Best display of budded oranges; size and general appearance to decide, $10; second best, $5.

Class 3.—Best display of seedling oranges; size and general appearance to decide, $10; second best, $5.

Class 4.—Best pyramid of budded oranges, not less than 100 specimens; general appearance of both fruit and pyramid to decide, $10; second best, $5.

Class 5.—Best pyramid of seedling oranges, not less than 100 specimens; general appearance of both fruit and pyramid to decide, $10; second best, $5; third best, $3.

Class 6.—Largest orange on exhibition, $5; second largest, $3; third largest, $2; largest and finest cluster of oranges, $5; second best, $3; third best, $2.

Class 7.—Entries under this class to be displayed on ordinary dinner plates. Best plate of Riverside Navel oranges, $3; second best, $2; best plate of Australian Navel oranges, $3; second best, $2; best plate of Malta Blood oranges, $3; second best, $2; best plate of Paper Rind St. Michael oranges, $3; second best, $2; best plate of Mediterranean Sweet oranges, $3; second best, $2; best plate of Mandarin oranges, $3; second best, $2.

Class 8.—Best pyramid of budded lemons, not less than 100 specimens; general appearance of both fruit and pyramid to decide, $10; second best, $5; third best, $3.

Class 9.—Best display of lemons, $10; second best, $5; third best, $3; best plate of Lisbon lemons, $3; second best, $2; best plate of Eureka lemons, $3; second best, $2.

Class 10.—Best display of limes, $3; second best, $2.

Class 11.—Best display of new varieties of oranges, $5; second best, $3; third best, $2.

Class 12.—Best box of fancy packed Muscat raisins, $10; second best, $5; third best, $3; best box London Layers Muscat raisins, $10; second best, $5; third best, $3; best box Sultana raisins, $3; second best, $2; best box Zante currants, $3; second best, $2; best box of figs, $3; second best, $2.

Class 13.—Best specimen of olive oil, $5; second best, $2; best specimen of pickled olives, $5; second best, $2; best specimen of pickled limes, $2; best specimen of pickled figs, $2.

Class 14.—Best specimen of French grapes, $3; second best, $2; best specimen of almonds, $2; second best $1; best specimen of English walnuts, $2; second best, $1.

Class 15.—Best display of winter apples, $3; second best, $2; best display of winter pears, $3; second best, $2.

Class 16.—Best display of fruit (in syrup) in glass, $3; second best, $2; best display of preserved fruit in glass, $3; second best, $2; best display of jellies in glass, $3; second best, $2; best specimen of orange jelly, $2; second best, $1; best specimen of orange marmalades, $2; second best, $1; best specimen of preserved citron, $3; second best, $2; best specimen of preserved lemon, $2; second best, $1.

Class 17.—Best exhibit of dried apricots, $2; second best, $1; best exhibit of dried peaches, $2; second best, $1; best exhibit of dried apples, $2; second best, $1; best exhibit of dried pears, $2; second best, $1; best exhibit of dried prunes, $2; second best, $1; best exhibit of crystallized fruit, $2; second best, $1.

Class 18.—Best display of flowers, $5; second best, $3.

Artistic Designs.—The following premiums are offered by the Riverside *Daily Press:* The most artistic design executed in fruit, by any fruit-grower or dealer, $25; second best, $20; third best, $15; fourth best, $10; fifth best, $5.

Cold Storage Co.'s Premiums.—The Chicago Cold Storage Company, having its works just erected in Riverside, offer to pay the following prices for premium fruit: First premium, Washington Navels, 5 boxes, per box, $6; second premium, Washington Navels, 5 boxes, per box, $5; first premium Mediterranean Sweets, 5 boxes, per box, $4; second premium, Mediterranean Sweets, 5 boxes, per box, $3; first premium St. Michaels, 5 boxes, per box, $4; first premium Seedling oranges, 5 boxes, per box, $4; first premium lemons, 5 boxes, per box, $3; second premium lemons, 5 boxes, per box, $2. These prices are to be paid for the premium fruit. A part of the whole of five boxes may be used on exhibition during the fair, in competition for premiums in any way the exhibitor may desire, but the fruit must be uniform in size, appearance and quality. After the fair this fruit must be placed in cold storage under the grower's name and brand, and the owner can see the fruit once a month to note its keeping qualities, and next summer the fruit will be shipped East and placed on the market in the original packages, and the report of sale will be published.

Rules Adopted for the Government of the Exhibition.

1. All fruits entered for premium must be grown by the exhibitor.

2. Each exhibit of citrus fruits must consist of at least six specimens.

3. All entries from Riverside must be in by Monday afternoon, the 21st, and from all other parts of the State by noon on Tuesday, the 22d.

4. All exhibits must remain until the close of the Exhibition, at which time premiums will be paid.

5. Parties residing in districts affected with Red or Cottony Cushion Scale are requested to be very careful in selecting specimens to be furnished for exhibition, as no fruit affected with those insects will be exhibited.

6. The awarding committee will be announced on the morning of the second day.

7. Entries must be made for each class in which the exhibitor wishes to compete, as one entry cannot be permitted to take two premiums. Exhibitors are particularly requested to state to the Entry Clerk under which class they wish different exhibits entered.

The Central California Citrus Fair.

EDITORS PRESS:—Despite the drenching rainstorm the Central California Citrus Fair opened auspiciously at 7 o'clock Monday evening. All available space has been filled. Many applications to exhibit other than citrus fruits were refused. Had all been granted, a hall twice the size would have been required.

Entering the hall, your correspondent was amazed at the grandeur of the display. The decorations, which were arranged by Mrs. D. C. Feeley, assisted by Mrs. T. O. Smith, Mrs. S. T. Ingalls, Mrs. Loomis, Mrs. Dr. A. J. Cory, Mrs. L. J. Watkins, Mrs. E. O. Smith, Mrs. S. A. Paddock, Mrs. Dr. J. K. Secord, Mrs. S. P. Sanders, and Mrs. M. G. Buzzo, are particularly striking. From every rafter and crossbeam hang artistic arrangements of palm leaves and bamboos, furnished by John Rock, the nurseryman. Mingled with these are holly branches and evergreens, contributed by D. C. Feeley, Mr. Fowler, Mr. Holland, H. G. Keesling and others. Long bands of evergreens regularly festooned beneath national flags, and shields bearing the word "Welcome," adorn the galleries their whole length. On each side of the hall a broad strip of evergreens, made into a fringe 15 inches wide, hangs in scallops from the beams above the galleries the whole length of the building. At the lowest point in every scallop is a bunch of hollyberries.

Long lines of tables loaded with the choicest oranges, lemons, limes, pomegranates, persimmons, nuts, vegetables, flowers and dried and canned fruits, give the hall a picturesque appearance. Above the stage at end of the hall, opposite the entrance, and crowning this glory of golden exhibits, are the words "Central California Citrus Fair," worked in California raw cotton on large card-board letters, by Mrs. S. P. Sanders.

Back of the stage is a dark screen, upon which is a spread-eagle made of a kind of yellowish-brown feather-grass, and bearing a bunch of calla lilies in its beak and a basket of oranges in its talons. Above the eagle is the word "Eureka," lettered in pampas-grass, while below is a model of a railway train. This work was executed by Mrs. S. P. Sanders, assisted by Mrs. D. Loomis, C. Feeley and others.

The first object to be seen on entering the hall is a banana growing in a box of earth. This comes from John Rock's nurseries. It stands 10 feet high, with a stalk 8 inches in diameter, and has leaves 6 feet long by 18 inches broad. The bunch of fruit, which is 18 inches long, is green, and the blossoms have not disappeared.

The Golden Stairs.

Dr. W. S. McMurtry, of Los Gatos, presents a unique design, the "Golden Stairs," in a flight of steps extending from the floor to the gallery and completely covered with oranges. The "Golden Gate" is represented by two large Chinese oranges, six inches in diameter. Over the upper end of the stairway hovers a dove made of acacia blossoms, while at the foot lie the golden slippers.

Orange Monument.

In the southeast corner of the building, near the stage, stands a monument constructed by Mr. and Mrs. T. O. Smith, G. W. Tarleton, Mrs. M. G. Buzzo and Mrs. Loomis. It consists of a framework entirely covered with branches having oranges upon them. This exhibit is made by Mr. Geo. E. Pinder, of Los Gatos. The monument is covered with 1902 oranges and surmounted by a Japanese dwarf orange tree bearing fruit. Near the monument is a pyramid of oranges entered by Mr. Pinder.

Tree Bearing Oranges.

Perhaps the most interesting object is the bearing orange tree in the center of the hall. This was brought from Mr. C. Yocco's grove, near Los Gatos. The tree is growing in a four-foot cubical box of earth, and is seven feet high, with a nine-foot spread of branches. The trunk is four or five inches in diameter, and forks a foot and a half above the ground. There are now 300 oranges upon it. It is a very beautiful and symmetrical specimen, and attracts much attention.

Fine Walnuts.

D. C. Vestal, of San Jose, exhibits a box of English walnuts. The tree that bore them was grown from a seedling scion, grafted upon an Eastern black walnut root. The seed was brought from Valparaiso, Chili, by the late Philip Biddle, and was planted by Mr. Vestal. One tree, which is now 29 years old, is two feet in diameter, with a 60-foot spread of limbs, and is 30 feet high. From three trees of this variety he sold this season $70 worth of nuts at 13 cents per pound, after retaining a barley sack full for family use. The nut is very heavy, looks like the Prœparturiens, has an exceedingly rich flavor, and a thin shell that can easily be crushed in the hand. These trees are regular and heavy bearers, never having been bitten by frost. No irrigation is required.

The soil of Mr. Vestal's place is a sandy loam in the artesian belt. He has two large artesian wells, one 464 feet, and the other 500 feet deep, with a constant flow of about 60 inches of water, which will rise some 15 feet above the surface of the ground. He makes a specialty of raising the Moorpark apricot, black Tartarian and black Bigarreau cherries, egg plums, and peaches.

Mr. Vestal also has on exhibition some cherry-wood from four-year-old trees of the black Bigarreau variety. These shoots are fruit-bearing wood taken from the top of the trees and are over nine feet long and two inches in diameter. The soil in which the trees grow is a loam extending to a depth of 22 feet to surface water, lying upon a bed of clay 70 feet thick. Under the clay the first artesian water is found.

The Evergreen Exhibit.

One of the finest collections to be seen in the hall is that from the vicinity of Evergreen. The long table is covered with dishes of fruit from this favored locality, while over the middle of the table is a rack loaded with clusters of oranges and lemons, from green to ripe, making a most charming scene.

Charles C. Smith has some very fine large oranges, of delicious flavor, neither too sweet nor too sour. The trees from which these were taken are five years old, and bore 100 oranges each. His lemons are among the largest on exhibition. The trees bore about 650 each. He claims that their flavor is superior to that of the imported.

D. B. Fuller's raisins are rich in sugar, and his seedless seedling oranges are unusually fine.

Gilbert Cain shows excellent lemons and limes.

A. J. Fowler exhibits some very large lemons and some sweet oranges.

Messrs. P. Prellier and Pludhome have a fine collection of almonds, English walnuts, oranges, green beans, quinces and olives.

F. H. Babb exhibits a collection of sweet oranges.

A table space of 15x3 feet is used by W. H. Brundage's collection brought from Dr. A. E. Mintie's ranch in the foothills east of Evergreen. There is a beautiful cluster of large oranges hanging from the rack above the table. There are on the table a good many large oranges of great beauty, including some large Chinese. There are also fine almonds, English walnuts and lemons. Some of the orange trees on Dr. Mintie's place are said to be 15 years old, being among the earliest set out in Santa Clara valley.

C. Yocco's Exhibit.

On C. Yocco's table the fruits have been artistically arranged by Mrs. A. P. Hill in squares, crescents, triangles and cornucopias. One square, made of olives, is edged with oranges and has at its center a four-pointed star composed of lemons. In the center of the lemon star is a circle filled with dried olives. Mr. Yocco's oranges are of a superior quality, and his lemons show all stages of growth from the green to the ripe fruit.

Floral Designs.

The designs of winter flowers form one of the leading features of the fair. Mrs. E. O. Smith enters a large variety tastefully arranged on the right of the stage in a rockery 10 feet long, 6 feet wide, and tapering to a hight of 7 feet. Grottoes, lakes and pools, with the water represented by glass, give the artistic display of flowers, reeds and ferns a most striking and natural appearance.

A cornucopia of oranges within a horseshoe of marguerites and ferns, by Mrs. A. P. Hill, is very attractive. A lyre made of laurestines, with alternate strings of red and of white immortelles, by Mrs. Dr. A. J. Cory, looks as if it might, in skillful hands, give out strains of music. Mrs. L. F. Paddock has entered a pyramid of fire and calla lilies, interspersed with laurestines. Mrs. O. F. Alley, of the Willows, has sent in a beautifully designed frigate, two feet long.

Stanislaus County.

George A. Goodell, of Knight's Ferry, makes an exhibit of a large quantity of very beautiful oranges, grown at an elevation of 450 feet above the level of the sea. Three of his trees are said to yield an average of 2600 oranges annually. He shows some dried figs, 75 drums of which were produced by one tree last season.

Large Yield of Oranges.

Isaiah Shaw, of Berryessa, exhibits the large yield of nine boxes of oranges from two trees, and one box of lemons. The oranges are arranged in pyramids with square and triangular bases. Upon his table are to be found some almonds of unusually large size and a bunch of scions loaded with almond blossoms. Mr. Shaw has brought a beautiful lemon tree, growing in a box filled with earth, and bearing a load of fruit.

Late Grapes.

J. W. Fuller, of Saratoga, has placed in the fair several bunches of Muscat grapes, which remind one of the last rose of summer. He has also a collection of beautiful oranges.

J. Cunningham, of Saratoga, shows a box of fine lemons, four boxes of excellent oranges, almonds, English walnuts, dried prunes, and Japanese persimmons. A strange freak is seen in what was in its incipiency three lemons, but which has grown into queer shapes. The largest part is a cylindrical lemon two inches long by three-fourths of an inch in diameter. The other two lemons attached to the longest parts have developed into pipe-stem growths three inches long and a quarter of an inch in diameter.

Design of Beets.

A humorous design of an Indian, four and a half feet in stature, made of six red beets, attracts considerable attention. This work of art bears no name, but is labeled as grown on Fourteenth street without irrigation. The head and face are quite natural. The nose is represented by an onion and eyes by onions cut across the layers. The beet taking the place of the body of the Indian is two feet long by eight inches in diameter. The arms, which are slightly akimbo, are almost perfectly represented by beets 18 inches long, while the thighs and calves are properly developed beets two feet long by four and one-half inches in diameter. Beet leaves represent the conventional costume of an Indian.

Several wags have tacked their cards upon his beetship with various inscriptions, one of which runs: "It takes six California dead *beets* to make a man."

Vegetables.

From A. E. Gish's place at Saratoga, comes a tomato-vine, with tomatoes grown in the open air, showing the absence of frost.

Some large red beets, two feet long by ten inches in diameter, were grown without irrigation, on the places of E. W. Harrison and Mrs. L. J. Watkins, of Fourteenth street, San Jose. M. D. French has placed on the same table some monstrous cabbages, 18 inches in diameter.

W. C. T. U.

On the west side of the hall, the ladies of the W. C. T. U., of Santa Clara Co., Mrs. A. M. Gates, president, have a booth. The department of county fairs is under the superintendency of Mrs. Emma McLellan. The booth, the object of whose maintenance is the distribution of temperance literature, is very tastefully ornamented with flowers, ferns, acacia blossoms, hollyberries, pampas-grass, and branches from pepper trees. The walls bear the pictures of famous temperance workers, and a silk banner, having the name of the organization.

Angora Goods.

Col. C. P. Bailey, the most extensive breeder of Angora goats in the United States, makes a fine display of his products, as well as a beautiful live goat, which is snow-white, with short legs and spiral horns. His fleece hangs in spiral ringlets, from 6 to 12 inches long. Clipping time comes once a year—in the spring—before the fleece loses its oil, which renders it soft, lustrous and heavy, sometimes weighing 4 to 10 pounds, and worth 40 to 60 cents per pound. Plushes, serges, dress goods, braids, poplins, shawls, rugs and yarns are made from the fleece, which, when mixed with wool, is used in manufacturing hosiery, velvets, cloakings and fringes. The pelts are wrought into carriage robes and rugs, and the lower grade of skins into glove leather.

Mr. Bailey owns 8000 Angora goats, distributed among Mariposa, Battle Mountain, Nev., and Soledad. He has sold during the past five years over $50,000 worth of goats to people starting in the business. He organized the Angora Robe and Glove Company in 1875, but bought out their interest last January, and is now the sole proprietor of the business.

The rugs on exhibition are beautiful, silk-like, fleeced skins, gorgeously dyed. The plush robes manufactured from goats' wool are almost indestructible. The buckskin, seal and Angora goat skin gloves, of which $100,000 worth were made the past year, are of superior quality.

Paintings.

At the left of the stage hang three fine oil paintings of watermelons, oranges and lemons, the work of Mrs. J. E. Brown. The melons look ripe and as cooling as on a hot day in summer. The oranges are as natural as those on Mr. Pinder's monument near them. On the right of the stage is a painting of an overturned basket of ripe peaches. An excellent painting of a bunch of Tokay grapes and another of a bouquet of roses plucked last January are strikingly natural.

Your correspondent proposes to make some further notices of exhibits in your next issue.

Captain David Powell, manager of the excursion from Los Angeles, arrived Friday, Feb. 4th, with a party of about 70. Another excursion, under the management of W. Putnam, left Los Angeles on Thursday, in time to arrive here before the close of the fair, which may be continued another week on account of the rainy weather.

H. M. HAMILTON.

San Jose, Feb. 8th.

DRAFT HORSES—WHAT CHICAGO HORSE DEALERS SAY.—The unanimous opinion of all the principal dealers of horses in Chicago, who handle some 10,000 horses annually, is that the grade Percherons are superior to all other draft breeds for city use; that they sell for higher prices than the English draft, Clydesdale, or any other draft horse, and they advise the farmers of the West to breed to Percheron stallions if they wish to raise the most desirable horses for the Chicago market.—*Chicago Tribune.* M. W. Dunham, of "Oaklawn Farm," Wayne, Illinois, has imported from France nearly 2500 Percheron horses, and now has on hand about 500 head, nearly all recorded with their pedigrees in full in the Percheron Stud Book of France. All careful purchasers demand certificates of such registration as the only reliable evidence of purity of blood, many horses of unknown blood being imported and sold as pure bred.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

T. D. MORRIS, Sonoma, Cal. Extra fine Wyandotte Cockrels for sale cheap. Address, inclosing stamp.

J. N. LUND, Box 116, Oakland, Cal. Wyandottes, Langshans, L. Brahmas, P. Rocks, B. Leghorns, B. B. R. Game Bantams, T. Guineas, Hom'g Antwerp Pigeons.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

O. J. ALBEE, Santa Clara, has the finest fowls this season he has ever raised. Parties needing new blood will do well to write him before buying. Also Scotch Collie Pups. Prices to suit the times.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

H. J. GODFREY, San Leandro, Cal., first-class P. Rocks and Wyandotte eggs, $2 per setting; no circulars

PABLO POULTRY YARDS, San Diego, Cal. Large establishment. Send for catalogue.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

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D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

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HORSES AND CATTLE.

H. van der STRATEN, Hopland P. O., Durham Valley Farm, Mendocino Co., breeder of Shorthorn Cattle (registered). Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

LEONARD BROS., Mt. Leonard, Mo., importers and breeders of Galloway, Aberdeen-Angus and Shorthorn cattle.

HYDE & MOORE, Visalia, importers and breeders of Shorthorn cattle. Young stock for sale.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

Estate of M. E. BRADLEY, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

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E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

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ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

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P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

STINSON & MARSH, Dayton, Nevada. Registered Shorthorns of choice breeding strains.

T. P. A. WILLIAMS, Columbia, Boone Co., Mo., breeder and importer of Thoroughbred Herefords.

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E. W. WOOLSEY & SON, Fulton, Sonoma Co., imp'rs & b'ders Thoroughbred Merino, & Jersey Cattle.

EASTON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine; high graded rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

T. H. HARLAN, Williams, Colusa Co., breeder pure blooded Angora goats, & Merinos; young stock for sale.

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

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JOHN RIDER, Sacramento, Cal. Breeder of Thoroughbred Berkshire Swine. My stock of Hogs are all recorded in the American Berkshire Record.

W. D. RUCKER, Santa Clara, breeder of registered improved Poland-China Swine. Pigs for sale.

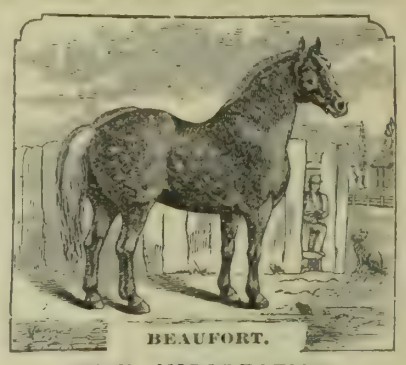
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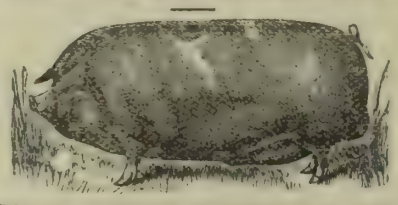
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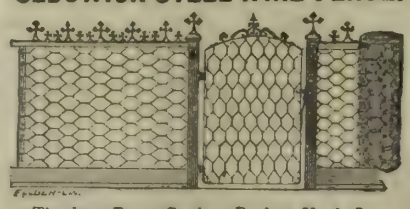
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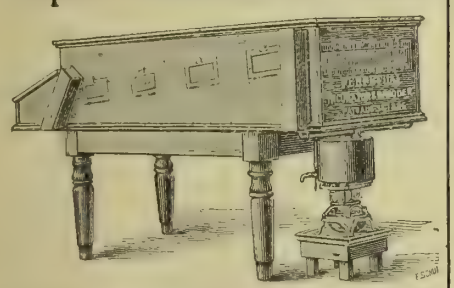
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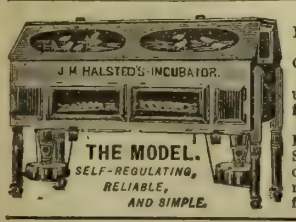
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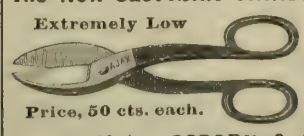
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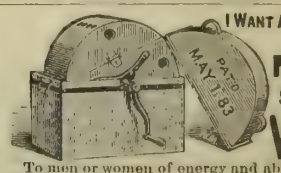
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S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 9, 1887.

Timely rainstorms in the valleys and deep fall of snow in the mountain ranges have dispelled all fears regarding crops, and created a more cheerful, hopeful feeling. Trading in all lines of produce the past week was light, owing to the heavy rainstorms, but values ruled higher in everything except cereals. European wheat cables the past week were fairly steady. Today's cable was as follows:

LONDON, Feb. 9.—Cargoes off coast, very little inquiry. Cargoes on passage and for shipment, steady. Mark Lane, quiet. Cal. wheat off coast, 36s 9d. Cal. wheat just shipped, 38s 3d. Cal. wheat nearly due, 36s 9d. Liverpool wheat, spot, rather more inquiry. Liverpool wheat, Cal. 7s 2½d to 7s 5½d. Weather in England, cold.

Foreign Review.

LONDON, Feb. 8.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: The condition of the English wheat offered has shown no improvement, and as a result there have been slow sales and lower values, both in London and the provinces. The sales of English wheat during the week were 44,300 quarters, at 34s 3d, against 67,437 quarters at 20s 9d during the corresponding period last year. It is estimated that the deliveries of English wheat from the beginning of the cereal year, 1886-87, has been 18 per cent, and under those for the same period in 1885-86, country flour, 6d lower. Trade in foreign wheat is stagnant. The arrivals have been heavy and stocks are increasing at Liverpool, Bristol and London. Australian shipments are commencing, and the new crop of the Argentine Republic, Chili and India, will soon be on the way here; therefore, if peace is maintained there will be no change for higher values. Flour is dull at unchanged prices. Corn is unhardened, and prices have advanced 3d. Oats are firmer, and have recovered 4d. To-day English wheat was in bad condition and very difficult of sale. Corn was dull; oats were 3d dearer, and barley and peas were unchanged.

Crops at the East.

CHICAGO, Feb. 6.—In this week's issue of the *Farmers' Review* the following summary of crops will appear: The wheat fields of Ohio, Indiana, Illinois, Missouri and Kansas, at the close of last week, were generally bare of snow, while those of Michigan and Wisconsin were well protected. The amount of attendant injury resulting from the disappearance of the snow, thus far, has been light, though occasional reports of damage from freezing have already been made. The movement of corn is scarcely perceptible in Iowa, and is very slow in Minnesota, Missouri, Indiana and Ohio, owing to bad roads, though stocks are reported low in all the States named. The reports show also that there is a very slow shipping movement of potatoes in all the Western States, and light supplies are generally reported.

NEW YORK, Feb. 6.—In wheat, the aggregate business for the week has been extremely limited. Both shippers and millers are holding off. The continuance of the strike has been a great hindrance to business, and contradictory war news from day to day has added to the dullness, hesitation, and distrust. Spot closed ¼c lower for the week, and futures steady, with prices down ½@⅝c as follows: February, 92c; March, 92⅞c; April, 93⅞c; May, 95c; June, 95¾c; and July, 96½c.

Eastern Wool Markets.

BOSTON, Feb. 5.—There is no material change in the position of the wool market this week. A full average business, amounting to 3,238,100 lbs, has been accomplished. Holders are offering samples cautiously, and only on full limit of valuation. Advices from all points are encouraging. The firmness of the London auction sales has been sustained. All kinds of desirable domestic wools are meeting with a steady demand from the manufacturers. There is no special activity in any one kind. A remarkably steady market is found on every hand in comparison with the corresponding time last year. The prices then ruling were about on a level with present values, the difference being so slight as to be hardly noticeable, and is not at the outside more than 1c. There has been more demand for California wool, and in addition to the sales of Spring wool reported, there are quite large sales of Fall wool pending. A round lot of Spring wool has been sold, amounting to 27,000 lbs, at 27c, which is part of very choice Humboldt clip, and is an outside price. There is very little wool now on the market, it being held at 25c, and from that down. Other sales embraced 145,000 lbs Spring and 13,000 lbs Fall on private terms; 150,000 lbs of Oregon sold at 17@25c. The receipts of the week have been 7028 bales domestic and 2655 bales of foreign, against 3829 bales domestic and 3833 bales foreign for the corresponding week last year.

NEW YORK, Feb. 6.—The movement has been a moderate one all the week. Indirectly the strikes and war rumors have had some effect in limiting business. The situation otherwise remains steady on the better class of wools, and offers no cause for alarm. There is a pretty good supply of Territory wools on hand. Among sales were 12,000 pounds Spring California at 21½c; 15,000 pounds Valley Oregon at 26c, and 12,000 lbs Territory at 18½@23c. The Philadelphia market is moderately active, and manufacturers are operating with a fair degree of freedom for well-assured wants, and prices are well maintained. Among sales were 14,000 pounds Oregon fine at 29¾c; 10,000 pounds Territory fine at 25c; 10,000 pounds Territory fine and fine medium at 22c; 2000 pounds Territory black at 24c; 2000 pounds Territory black at 18c; and 5000 pounds California defective at 16½c. The Boston market is almost destitute of any leading and well-pronounced feature. Its tone is not so strong and healthy. Much of the wool is held above quotations. Among sales were 100,000 pounds California at 26@27¾c; 55,000 pounds East Oregon at 24@25c; and 40,000 pounds Territory at 20@26c. Imports of wools last year were 131,263,103 pounds, against 100,000,479 pounds in 1885, the value being $17,403,099 in 1886, and $12,219,251 in 1885. Exports were 10,219,985 last year, and 2,350,364 in 1885, the value being $1,165,285 in 1886, and $345,958 in 1885.

New York Hop Market.

NEW YORK, Feb. 6.—The market is firm for choice 1886 Pacifics, which are scarce and wanted. Ordinary grades of hops are plentiful and hard to sell, even at concessions; choice 1886 New York State, 25c; prime to choice 1885, 11@13c; Pacific Coast 1886, choice, 23@25c; fair to good do, 18@22c; good to prime do 1885, 8@10c.

Dried and Canned Fruit at the East.

CHICAGO, Feb. 6.—The dried fruit market is steady and firm. Country orders are moderate and there is in turn a fair demand for all descriptions from local jobbers. Apples are about the only description of which there are any offerings on the open market, and there are not many of these. Other kinds of fruit are centered entirely in second hands, and holders are firm. California varieties are in moderate demand, at the following prices, by the pound: Prunes, French, 8½@11½c; plums, pitted, 11@13c; peaches, halves, 12@14c; halves, pared, 20@25c; figs, 6@8c; nectarines, 9c; pears, 8@11½c; raisins, London layers, 20-lb boxes, per box, $1.45@1.50; loose Muscatel, per box, $1.30@1.35.

NEW YORK, Feb. 6.—In canned goods the demand from consumers is showing some improvement, and large operators are in the market. For tomatoes, there has been an active demand for next year's pack. It is reported that 55,000 cases have been contracted for at 92½c@$1. California canned fruits are firm, as the stock is not excessive. Peaches, $2.50@2.75; pears, $2.50@3.25; plums, $2.25@2.50; grapes, $2.25; apricots, $2.15.

Dried fruits—California loose raisins, $1.55@1.90; London layers, $1.70@2. The *Commercial Bulletin* says: California raisins, some inferior, are now coming forward to this market, but the most objectionable feature of the receipts is the fact that supplies in many instances are being consigned to parties in no way connected with the trade, and they, with a view of realizing upon their holdings, are pressing them upon the market. There has been renewed activity in Turkish prunes; sales are reported of 300 casks, ranging from 6@6¾c, which disposes entirely of every parcel of importance on spot in outside hands; French are in fair demand and firm at 8¼@8½c for 60's and 90's. Citron is in demand at 18½@19c. Currants are weak at 4¾c.

California Products in New York.

NEW YORK, Feb. 6.—California yellow mustard-seed, dull, quoted at 3¾@4½c. California honey is moving more freely. There is considerable stock here, but the more liberal distribution gives strength to the market. Amber, in lots, quoted at 4¾c, and white, 5c.

California Fruit in Chicago.

CHICAGO, Feb. 6.—There was a little more doing in oranges, owing to the weather having moderated, but there having been several days of dullness, holders are very willing to sell. Prices were easy, but not materially changed. California bright Riverside, $3@3.50; California Navel oranges, $5@6.

Local Markets.

BAGS—The market is claimed to be stronger for grain bags, owing to the rains having improved grain crops. As yet transactions are light. For Calcutta, May-June delivery, 5¾@6 cts is asked.

BARLEY—The market, under heavy rains and a bear raid, had a severe backset, but at the close today prices are higher, with an advancing tendency. On Call, to-day's sales were as follows:

Morning Session: Buyer season — 700 tons, $1.05½; 400, $1.05⅝; 1200, $1.05¾; 500, $1.05⅞; 1300, $1.06; 300, $1.06¼; 700, $1.06¾; 100, $1.06⅜; 300, $1.06½. Seller season —200 tons, $1.01¼; 100, $1.01½; 100, $1.01⅝ ₱ ctl. Afternoon Session: Buyer season—900 tons, $1.06¼; 100, $1.06⅜; 1600, $1.05½; 100, $1.06⅝; 600, $1.06¾; 1000, $1.06⅞; 200, $1.07. Seller season—100 tons, $1.01⅝ ₱ ctl.

BUTTER—Owing to lighter receipts and stocks well cleaned up, prices are higher, but it is claimed that receipts will soon be on an enlarged scale.

CHEESE—The market continues to hold to strong prices, under light stocks and a good demand, It is claimed that heavy receipts will soon set in.

EGGS—The market is a shade higher, and strong at the advance, owing to lighter supplies by reason of bad roads.

FLOUR—The market is steady at current quotations.

WHEAT—The market for sample parcels is very dull, but still holders are slow to make concessions. The supply in the State is light for this time of the year, with the bulk in the hands of strong parties. The market which weakened off closed stronger today. On Call, to-day's sales were as follows:

Morning Session: Buyer season—700 tons, $1.55⅞; 200, $1.55¾; 100, $1.55½; 200, $1.55⅜; 4000, $1.55¼; 100, $1.55⅛ ₱ ctl. Buyer 1887—200 tons, $1.59; 200, $1.59½ ₱ ctl. Afternoon Session: Buyer season—100 tons, $1.56; 200, $1.55⅞; 800, $1.55¾; 600, $1.57⅝; 500, $1.55½; 600, $1.55⅜; 900, $1.55¼; 700, $1.55⅛; 100, $1.55. Buyer 1887—300 tons, $1.60; 500, $1.59½; 100, $1.59⅛ ₱ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The Cincinnati *Price Current* furnishes the following calculation as to wheat consumed and exported in the past six months, probable exports prior to July 1, 1887, etc.:

	1886-87.	1885-86.
Total supply July 1.....	80,000,000	150,000,000
Unavailable.....	50,000,000	50,000,000
Available supply July 1....	30,000,000	100,000,000
Crop.....	457,000,000	357,000,000
Total available supply....	487,000,000	457,000,000
Exports 6 months to Jan. 1.	77,000,000	39,000,000
Consumption to Jan. 1....	141,000,000	138,000,000
Seed requirements, year...	53,000,000	53,000,000
Disposed of.....	271,000,000	230,000,000
Available supply Jan. 1....	216,000,000	227,000,000

It is added that the "domestic requirements for consumption for six months to July 1 next will be approximately 143,000,000 bushels, which will leave 73,000,000 bushels available for export, by reducing reserves to minimum point, or 30,000,000 bushels lower than on July 1 last, which would compare with the low point in 1882."

General rainstorms throughout the State, with a heavy snowfall in the mountain ranges, have dispelled, to a very great extent, the clouds of distrust regarding this year's crop. The croakers of two weeks ago have gone to the other extreme, and now unhesitatingly claim that the yield this year will be in excess of that of last year. While present crop prospects, for the land already seeded, are of the best, yet no one can foretell the future, for hot north winds that usually come in May or June may decimate many fields of grain, but still it is hardly likely that the hot winds will come in any force this year until the crops are well secured. This has been the experience of former seasons, when the rains held off late. Even if we escape the north winds, still the acreage seeded to wheat is below last year's, and in many sections it is now too late to seed to wheat. From present information, and allowing a fair percentage for damage to some grain fields later on, it is safe to say that our exportable surplus, from this year's crop, will be about 500,000 short tons, but then the carry-over from this season into the season of 1887–88 will probably be slightly more than was carried over from 1885–86 into 1886–87. Eastern advices are, taken as a whole, not so favorable regarding Western crops as were given out last year at this time, but then it is too early to form a correct idea as to the outturn, for the spring weather is the controlling influence. European advices are essentially unchanged; taken as a whole, they are fairly favorable for an average crop. Australian advices give a larger outturn than last year; in the Victoria colony the yield was 12,000,000 bushels, which gives an exportable surplus of about 130,000 to 150,000 tons, or about 60,000 tons in excess of the quantity exported the preceding haryest.

Trading, the past week, in the local wheat market was exceedingly light, owing to shippers holding off, and holders not disposed to make much concession in their asking prices until a better idea of the beneficial effects of the rainstorms are known. In futures on Call, transactions were large, with the bears hammering down prices each day, yet options have not been broken to as low figures as many were led to expect they would be, with a general rainstorm reported in the State.

The Messrs. C. A. King & Co., of Toledo, furnish the following figures of total reported European and American stocks of wheat in bushels:

	——000 omitted——			
Stocks, bushels.	Jan. 1, 1887.	Jan. 1, 1886.	Jan. 1, 1885.	Jan. 1, 1884.
Visible supply wheat.	62,700	58,400	47,996	35,507
Stocks California....	13,400	19,000	27,200	11,700
Stocks U. K.	15,800	25,600	16,900	29,900
Am't on pass. U. K.	16,500	14,000	16,400	16,700
Am't on pass. contin't	5,900	1,300	3,180	2,780
Totals, bushels...	114,300	118,300	111,676	96,587

Heavy rains, and buyers confining purchases to actual requirements, created a lower barley market for all grades up to Monday, when a steadier feeling set in at the decline. The heavy rains have caused a better inquiry to prevail for seed. The consumption of feed barley is reported to still be very large, while the demand for brewing is increasing, but only in, as yet, a small way. Advices from the agricultural districts report a less acreage seeded so far than for the like time in 1885-86, but it is claimed that plowing and seeding will be done in an extensive way this month. On Call, transactions in futures were on a very large scale, with heavy buyers taking all offered, at a decline of from 8 to 10 cts per cental on last week's prices.

Corn, like other cereals, has labored under the weather influence, which, with free receipts from the West, caused a dull and depressed market to obtain. Choice grades of corn continue scarce, but the demand is slow.

Oats continue to come to hand freely from the Western States, keeping our market down. The stock of choice is light, as is the supply, but the other grades are in heavy stock, and favor buyers.

Rye is in better supply, with the demand slow.

Buckwheat moves slowly.

Exports of flour from this port in January were 72,776 bbls., against 80,000 in January, 1886. For the first seven months of the crop year, the exports were 683,900 bbls. against 673,414 in same time last crop year. Reducing the flour to wheat we have total exports of wheat since July 1st of 11,397,000 ctls., valued at $15,725,000, against 7,084,000 ctls. at $10,095,000 in the same period last crop year.

Feedstuffs.

Under heavy rainstorms, the receipts of hay the past week were lighter, but as the demand was also light, no marked changes were noted. Buyers confine purchases to immediate wants, under the impression that prices will recede with clearer skies; but dealers say that the supply of the better grades to come forward is light, and consequently not much if any lower prices can be expected to obtain up to next harvest. The consumption is very heavy, owing to cold weather.

Ground feed is reported unchanged in prices, although a good demand is said to rule for this time of the year.

Fruits.

Under lighter receipts and a fair demand, oranges are in better feeling. Limes are stronger, while lemons are steadier. The consumption of oranges is reported to be fully up to last year.

Oregon continues to send us liberal supplies of apples, which move off freely at quotations.

Dried fruits have a strong tone, with the more choice packed fetching an advance on top quotations. The consumptive demand is fair, while the Eastern demand is reported to be good.

Raisins, unless well selected, packed and put up attractively, are hard to sell, except at concessions. It is claimed that in the Eastern markets, strong selling competition by commission merchants is against the market.

Live-Stock.

Timely rains have created a firmer tone in the live-stock market, with a strong probability that a higher range of values will soon follow. In beef cattle there is a falling off in the offerings, necessitating slaughterers to pay full up so as to have their wants met. Mutton sheep are also in lighter supply. Reports from the interior are to effect that the cold weather killed large numbers of lambs. Hogs have a still stronger tone. In milch cows a better inquiry is reported, but buyers are slow in naming higher prices. Horses, it is claimed, will soon be in better demand, particularly for railroad building.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9⅛ to 10c.

PORK—Live hogs, 3¼ to 3¾c for heavy and medium; hard dressed, 5⅛ to 7c per lb; light, 3 to 3¾c; dressed, 5 to 6c; soft hogs, live, 2 to 2¾c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Under light receipts, the market is well cleaned up, and a good demand ruling, potatoes have advanced, with a strong market at the close.

New potatoes are coming in fairly well, but high prices restrict the demand.

Sweet potatoes are in light stock and strong.

A continued heavy shipping demand has advanced the price of cabbages to a still higher range. It now looks as if the top has not been reached. Cauliflowers are stronger, as are root vegetables.

Onions are doing better under moderate receipts and a fair demand. Choice, hard are scarce.

Green cucumbers are in the market. Green peas, string beans and tomatoes come in sparingly, and, consequently, command fancy prices.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way.....	205,710	142,264
In port, disengaged.....	93,850	102,142
In port, engaged.....	17,509	59,303
Totals.....	317,069	303,709

The above gives a carrying capacity as follows: 1887, 500,415 short tons; 1886, 484,760 short tons; increase over last year, 15,655.

In poultry, receipts are light, but the very low prices at which wild game is sold operates against higher prices.

Quails, geese, ducks, and hares are in oversupply and hard to sell. Several consignments had to be dumped.

Hops are more strongly held by holders, owing to improved advices from the East.

In wool there is nothing new to report here, but dealers claim that it is only a question of time when higher prices will prevail.

Honey appears to be stronger, but as yet no advance in prices has been noted.

Tallow is scarcer, but improved pasturage, it is claimed, will bring in more liberal supplies later on, owing to live-stock taking on more flesh.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 9, 1887.

BEANS AND PEAS.			
Bayo, ctl.....	1 40	@	1 55
Butter.....	1 25	@	1 55
Pea.....	1 60	@	1 70
Red.....	1 25	@	1 40
Pink.....	1 25	@	1 40
Large White....	1 60	@	—
Small White....	1 60	@	1 70
Lima.....	2 00	@	2 45
Fld Peas, blk eye	1 00	@	1 05
do green.....	1 00	@	1 12½
do Niles.....	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California.....	4	@	4½
German.....	6¼	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb.	15	@	17½
do Fancy br'nds	19	@	21
Pickle roll.....	15	@	16½
Firkin, new.....	15	@	16
Eastern.....	—	@	—
CHEESE			
Cheese, Cal., lb..	14	@	17½
Eastern style...	15	@	17
EGGS.			
Cal., ranch, doz..	25	@	26
do, store.....	22½	@	25
Ducks.....	—	@	—
Oregon.....	—	@	—
Eastern.....	—	@	—
Utah.....	—	@	—
FEED.			
Bran, ton.....	15 50	@	16 50
Cornmeal.....	26 00	@	27 00
Gr'd Barley ton.	25 00	@	26 00
Hay.....	9 00	@	14 50
Middlings.....	22 00	@	23 00
Oil Cake Meal.	26 50	@	28 50
Straw, bale.....	40	@	60
FLOUR.			
Extra, City Mills	4 75	@	5 25
do Co'ntry Mills	4 50	@	5 00
Superfine.....	3 50	@	4 25
GRAIN, ETC.			
Barley, feed, ctl.	1 02½	@	1 10
do Brewing..	1 10	@	1 20
Chevalier	1 45	@	1 60
do Coast...	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White....	1 05	@	1 10
Yellow	1 02½	@	1 10
Small Round.	1 05	@	1 15
Nebraska	97½	@	1 05
Oats, new.....	—	@	—
Choice feed.....	1 50	@	1 57½
do good.....	1 40	@	1 47½
do fair.....	1 30	@	1 37½
do black	1 40	@	1 55
do Oregon	1 30	@	1 60
Rye.....	1 10	@	1 25
Wheat milling.			
Gilt edged..	1 60	@	—
do Choice.....	1 55	@	—
do fair to good	1 50	@	—
Shipping choice	1 55	@	—
do good.....	1 50	@	1 53½
do fair.....	1 47½	@	—
HIDES.			
Dry.....	—	@	16
Wet salted..	8	@	9½
HONEY, ETC.			
Beeswax, lb.....	20	@	22
Honey in comb.	9	@	12
Honey in comb, fancy.....	12	@	13½
Extracted, light.	4	@	4½
do dark.	3½	@	4½
HOPS.			
Oregon.....	20	@	25
California.....	18	@	25
ONIONS.			
Pickling.....	—	@	—
Silverskin.....	1 50	@	2 50
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile.	—	@	—
Almonds, hd shl.	5	@	7
Soft shell.....	15	@	19
Paper shell	18	@	20
Brazil.....	11½	@	13
Pecans.....	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank.....	1 75	@	2 25
Early Rose	1 00	@	1 25
Cuffey Cove.....	1 30	@	1 65
Jersey Blues...	1 50	@	1 75
Petaluma.....	—	@	—
Tomales.....	1 00	@	1 40
River reds.....	1 00	@	1 25
Humboldt.....	—	@	—
do Kidney....	—	@	—
Chile	—	@	—
do Oregon...	1 35	@	1 60
Pearless.....	1 50	@	2 00
Salt Lake.....	—	@	—
New Potatoes...	2½	@	3½
POULTRY AND GAME.			
Hens, doz.....	5 50	@	7 00
Roosters.....	5 50	@	7 00
Broilers	5 00	@	6 00
Ducks, tame....	5 00	@	7 00
do Mallard....	2 00	@	—
do Sprig.....	1 00	@	—
Geese, pair.....	1 50	@	2 50
do Goslings ...	—	@	—
Wild Gray, doz	75	@	1 50
Turkeys, lb.....	13	@	14
do Dressed..	14	@	16
Turkey Feathers, tail and wing..	10	@	20
Snipe, Eng., doz.	—	@	—
do Common..	—	@	—
Doves.....	75	@	85
Quail.....	65	@	90
Rabbits.....	1 00	@	—
Hare.....	75	@	1 25
Venison.....	8	@	10
PROVISIONS.			
Cal. Bacon.			
Heavy, lb.....	8½	@	9
Medium	8½	@	9
Light	10½	@	11½
Extra Light..	12	@	12½
Lard.....	7	@	10½
Cal. Smoked Beef	11½	@	12½
Hams, Cal.....	10	@	12½
do Eastern..	13	@	14
SEEDS.			
Alfalfa.....	9	@	10
Canary.....	3½	@	4
Clover red.....	12	@	13
White	17	@	18
Cotton.....	10	@	—
Flaxseed	2½	@	2½
Hemp.....	4	@	4½
Italian RyeGrass	25	@	—
Perennial.....	7	@	9
Millet, German..	4½	@	5
do Common.	7	@	10
Mustard, white..	3	@	3½
Brown.....	2 25	@	2 75
Rape.....	1	@	1½
Ky. Blue Grass..	11	@	13
2d quality.....	11	@	12
Sweet V. Grass..	75	@	—
Orchard.....	20	@	25
Red Top.....	15	@	—
Hungarian.....	8	@	10
Lawn.....	30	@	40
Mesquit.....	10	@	13
Timothy.....	5½	@	—
TALLOW			
Crude, lb.....	2	@	5
Refined.....	6	@	9
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino ...	22	@	25
Sact'o valley....	17	@	20
Free Mountain.	17	@	20
N'hern defective	—	@	—
S Joaquin short.	14	@	18
do long.....	—	@	—
Cava'v & F'th'll.	—	@	—
Oregon Eastern.	17	@	22
do valley.....	23	@	25
Southern Coast.	13	@	17
FALL—1886			
Southern, free..	17	@	20
do defective..	12½	@	19
Northern, free..	20	@	23
do defective..	15	@	20
Middle free.....	18	@	21
do defective..	15	@	18

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Feb. 3-9.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.28	14	NE	Cy.	.00	45	S	Cy.	.00	50	SW	Fr.	.00	49	SW	Cy.	.00	58	S	Cl.	.00	55	Nw	Cl.
Friday	.03	18	NE	Cy.	.62	39	N	LR.	.83	46	S	LR.	1.50	52	S	LR.	.00	57	Nw	Cy.	.00	56	Nw	Fr.
Saturday	.00	21	E	Cl	.81	35	N	LR.	2.25	35	Nw	LR.	3.60	36	W	LR.	.00	55	SE	Cy.	.00	58	S W	Cy.
Sunday	.00	24	NE	Cl	.94	42	S	Cy.	.38	45	SE	Cy.	.05	47	SE	Cl.	1.13	50	SE	Cy.	.67	55	S W	Cy.
Monday	.08	25	SE	Cy.	.08	39	S	LR.	.00	46	SE	Cy.	.03	46	S	LR.	.28	52	SE	LR.	.16	56	S W	Cy.
Tuesday	.04	26	S	LS.	.14	46	N	Fr.	.40	43	N	Cy.	.21	46	NE	Fr.	.21	52	E	Cy	.25	59	S	Cy.
Wednesday	.08	33	E	Cy.	.00	45	N	Cy.	.27	44	Nw	Cy	.12	49	W	Fr.	2.06	58	S W	LR.	.29	54	W	LR.
Total	.51				2 59				4.13				5.51				3.68				1.37			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 9, 1887

Apples, bx com..	75	@	1 25
do choice	1 75	@	2 25
Bananas, bunch.	2 00	@	3 25
Blackberries, ch.	—	@	—
Canteloupes, cr.	—	@	—
Cherries blk	—	@	—
do Royal Ann..	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru.	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	11 00	@	—
do Cal. box	50	@	1 00
Lemons, Cal., bx	1 00	@	1 50
do Sicily, box	2 00	@	2 50
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 50	@	2 00
do Choice	2 25	@	3 00
do Navels	2 50	@	4 00
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz.	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
do Egg	—	@	—
Quinces bx	—	@	—
Raspberries ch..	—	@	—
Strawberries ch.	—	@	—
Watermelons 100	—	@	—

DRIED FRUIT

Apples, sliced, lb	5	@	6½
do evaporated.	11	@	12½
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	9	@	11
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	10	@	13
Zante Currants	8	@	—

RAISINS.

Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractious come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.

Artichokes, doz.	—	@	—
Asparagus ₱ lb	40	@	60
do cultivated	—	@	—
Okra, dry, lb	10	@	12½
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	22½	@	25
Pumpkins prton	—	@	—
Squash, Marrow fat, ton	7 00	@	12 00
do Summer bx	—	@	—
String beans lb	—	@	—
Tomatoes box	1 25	@	1 50
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs.	1 30	@	1 55
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, bx	—	@	—
Garlic, lb new	—	@	—
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, lb	7½	@	12½
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	25	@	40
Rhubarb lb	15	@	17½

List of U. S. Patents for Pacific Coast Inventors.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING FEBRUARY 1, 1887.

357,139.—CHEMIST'S BALANCE—Attwood & Taylor, Oakland, Cal.

356,977.—WATER-WHEEL BUCKET—L. Biggio, Sutter Creek, Cal.

356,983.—MUSIC LEAF-TURNER—P. L. Carden, Dixon, Cal.

357,063.—PENCIL—W. C. Carlton, Baker Co., Ogn.

357,117.—TIME INDICATOR—J. H. Culver, S. F.

356,824.—GRATE—De Guerre & De Lano, S. F.

356 829.—REEL-SUPPORTING ARM—J. B. Gemmill, Red Bluff, Cal.

356,941.—PHOTOGRAPHIC CAMERA—Oliver Hyde, Vallejo, Cal.

357,151.—HARROW—D. Lubin, Sacto.

357,152.—CLOD CRUSHER AND PULVERIZER—D. Lubin, Sacto.

356,948.—DUMB-WAITER STOPS—J. J. Mahoney, S. F.

356,960.—TROUSERS STRETCHER—C. E. Ray, S. F.

356,961.—BREECH-LOADING FIREARM—J. W. Redfeld, Glendale, Ogn.

356,855.—KITCHEN CABINET—B. C. Tabor, Salem, Ogn.

356,857.—WINDOW—Henry Tintrop, S. F.

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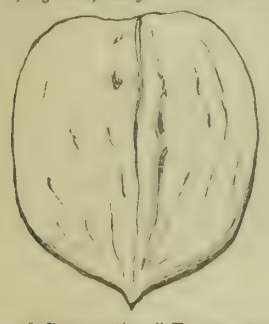
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I have for sale seed of **Vitas Californica,** proof against Phylloxera, which I will send at $1 per pound for 5 pounds or more, or $1.50 per pound for less than 5 pounds.

Vitas Californica Cuttings, $8 per 1000.

☞Freight to be paid by purchasers.

C. MOTTIER,
P. O. Box 8. Middletown, Lake Co., Cal.

BEACH & CO'S ROSES

Send stamp for our beautiful catalogue of all the Newest and Best Roses, Geraniums, Carnations, and all kinds of House and Bedding Plants, before ordering elsewhere. We make no extravagant promises, but sell GOOD SOLID GOODS at fair prices, safe arrival guaranteed by mail or express, while page of special collections will surely contain something you will desire. Address BEACH & CO., RICHMOND, IND.

RAMIE PLANTS.

Time and Method of Planting!

When and How to Harvest the Crop!

Full Directions on the Growth and Culture of RAMIE Free on Application.

FIELD, GARDEN, FLOWER AND TREE SEEDS,

FRESH AND RELIABLE, AT LOWEST RATES.

BERMUDA GRASS SEED.

JAPAN PERSIMMON SEED AND TREES.

TRUMBULL & BEEBE, 419-421 Sansome St., SAN FRANCISCO.

SHINN'S NURSERIES

NILES, CAL.

We offer to the public our usual excellent and well-assorted stock of

FRUIT, NUT & SHADE TREES,

SHRUBS AND PLANTS.

ALL OUR TREES ARE GUARANTEED FREE FROM SCALE, and are grown without irrigation on new land distant from old orchards.

☞We would call especial attention to our "Bulletin" Smyrna Fig, imported by us direct from the Levant and now proved, in numerous instances of fruiting, to be the

TRUE FIG OF COMMERCE.

Send for Catalogue.

SHINN & CO., Niles, Alameda Co., Cal.

FRUIT TREES! Established 1868. FRUIT TREES!

THOS. MEHERIN,

Agency of CALIFORNIA NURSERY CO., Niles, Alameda Co., Cal.

We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grape Vines, Olives, Small Fruits, Etc.

Ever offered on the Pacific coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower, and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

at LOWEST RATES. New Catalogue for 1887 mailed on application.

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TREES FRUIT and ORNAMENTAL.

MAGNOLIAS,

PALMS, ROSES, CLEMATIS, Etc.

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WORLD'S EXPOSITION AT NEW ORLEANS.

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33d YEAR. STOCKTON NURSERY. 33d YEAR.

WHITE ADRIATIC,

SAN PEDRO, SMYRNA, and ENDRICH FIGS.

Præparturiens, Macrocarpa, Mayette, and Chaberte Walnuts, Chestnuts, Persimmons, Mulberries, Olives, Oranges, Lemons, Pears, Apples, Peaches, Apricots, Cherries, etc. Plums and Prunes on Myrobolan Stock, Grapevines, Ornamental Trees, Shrubs, Palms, Magnolias, Clematis, New Roses and Hothouse Plants.

TRY THE PERSIAN MULBERRY.

NO SCALE—I wish particularly to call the attention of Fruit-growers to this fact. I have repeatedly had my nursery examined by experts, and upon no occasion have they found any scale or any indication of scale. The nursery is isolated from orchards, both old and new, and as I take every precaution in importing new varieties to get only clean stock, I feel perfectly warranted in guaranteeing every tree sold by me free from scale and other pests that are proving so disastrous to the fruit interests of the State. SEND FOR CATALOGUE.

E. C. CLOWES, Proprietor, Successor to W. B. WEST.
STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

C. M. Silva & Son,

NURSERYMEN,

LINCOLN, CAL., and NEWCASTLE, CAL

—ALL KINDS OF—

Fruit Trees and Small Fruit Plants, Etc.

Large Stock of CHOICE PEACH TREES

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McDEVITT CLING PEACH, the Prize Winner.

The best varieties of **Plums** budded on **SEEDLING Myrobolan Plum Stocks.**

WALLING PLUM, a new extra choice variety from Oregon. **Botan, Ogon, and Kelsey's JAPAN PLUMS.**

CHOICE APPLES in variety.

New American, Downing, Russian, White, and Black MULBERRIES.

Fay's Prolific Currant, the best Red Currant. **Hansell,** the Earliest Red.

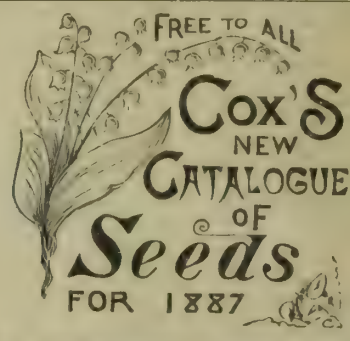
Souhegan, the Earliest Black Raspberries.

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☞Our Nurseries at Lincoln are entirely isolated all Orchards or Vineyards.

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Lincoln, Placer Co., Cal.



☞Our New Catalogue for 1887, mailed free on application, contains description and price of Vegetable, Flower, Grass, Clover, Tree and Field Seeds; Australian Tree and Shrub Seeds; native California Tree and Flower Seeds, Fruit Trees, and many new novelties introduced in Europe and the United States.

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CYPRESS AND GUM TREES.

All fresh, hardy, stocky trees. Monterey Cypress, 8 to 12 inches high, transplanted in boxes of 70 trees each, at $2 per box or $25 per 1000; 12 to 15 inches, of 50 trees per box, at $4 per 100 or $35 per 1000. Seedlings, 3 to 4 inches, at $5 per 1000. Blue Gums, 8 to 12 inches, of 100 per box, at $1.50 per 100 or $14 per 1000; 12 to 18, of 70 per box, at $1.50, or $20 per 1000; 18 to 24 inches, 50 per box, at $1.75, or $30 per 1000. Large, straight sacked or bulked Gums or Pines shipped only after the roots have sprouted through sacking. Blue, 4 to 6 feet, at $15 per 100; 6 to 8 feet at $20 per 100; 8 to 10 at $25 per 100. Red or Round Leafed Gums, 4 to 6 feet, at $20 per 100; 6 to 8 feet at $25 per 100. Pines, 2 to 3 feet, at $20 per 100. Acacias, 2 to 3 feet, of 30 trees per box, or 3 to 4 feet of 20 trees per box, at $2 per box. Also fresh-gathered, strong-growing seeds of the Monterey or Italian Cypress, Blue, Red or Iron Bark Gum or Acacia in variety at lowest rates. Postage Stamps taken for orders not exceeding $2. No other than the best of stock will be sent from this nursery, as we desire to make a friend of every cash customer.

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Fine Small Fruits a Specialty

CUTHBERT RASPBERRY.



BEST MARKET BERRY KNOWN! Large, Firm and Luscious, stands travel finely, bears immensely, and has two crops a year; 75 cents per dozen; $3 per 100. Also Strawberries, Blackberries, Gooseberries, Currants, etc., of finest imported varieties. Prices on application.

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ESTABLISHED IN 1858.

Apricot, Plum, Prune and Peach on Myrobolan Plum stocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

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For Sale—White Adriatic Fig Cuttings of my own importation. Grape Roots and Cuttings of Carignan, Mataro Grenache, Teinturier, Trousseau, Carbenet Sauvignon, Malbec and Muscat Frontignon, etc.

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ARCTIC OIL WORKS,

Manufacturers of

INSECTICIDE!

FOR ERADICATING AND DESTROYING ALL PESTS THAT INFEST FRUIT TREES AND PLANTS, SUCH AS

SCALE BUG, HARVEST FLIES, TREE HOPPERS, PLANT LICE, Etc.

It has been fully tested by the Agricultural Department of the State University, and pronounced a success, the endorsement of which we append. It is put up in convenient forms for use both in liquid and paste state.

For Sale in Barrels and 2 and 5-pound Cans in paste form, and in Barrels and 5-gallon Cans in liquid form.

Copy of Letter Received from the University of California, College of Agriculture, Berkeley, dated December 4, 1886.

J. N. KNOWLES, Esq., Manager Arctic Oil Works, San Francisco—DEAR SIR: We have lately tested the Insecticide preparation of Whale-Oil Soap sent by you to us, and have found it to be very effectual against the Scale infesting Orange and Bay Trees here; also against the Thrips. From our previous experience with a similar composition, I think it will be found fully effectual against any small Insect Pests not specially protected like some of the armored Scales, and against which any Wash short of strong lye cannot be used. Respectfully,

E. W. HILGARD, Professor of State University.

OFFICE, 28 California St., San Francisco, Cal.

B. V. CUTTINGS.

Bordeaux Varieties.

I OFFER FOR SALE, AT $10 PER M., 200,000 CUTTINGS of the following renowned varieties, tule-packed, F. O. B. at depot: Cabernet Sauvignon, Cabernet-Franc, Merlot, Verdot, Malbec, Tinturier, Portal-Ploussard, Mondense, Petite Sirrah and Grosse Blue. Also from $2.50 to $5.00 per M. all other well-known wine and table grape varieties, too numerous to mention. The above Grape Cuttings are from our vineyard, and we guarantee them true to name, healthy, in good condition, and offered at lowest market price. Ten (10%) per cent invariably in advance on small orders. Information furnished, if desired. Will not guarantee cuttings procured for accommodation from other vineyards, but will always select them from responsible parties and in healthy locations. The Burgundy and Bordeaux varieties are very scarce, and parties desiring to plant this winter would do well to secure their cuttings at once, and save money and disappointment.

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Successors to the O. W. Childs Nurseries,

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FOR SALE, SEASON 1886-87,

The largest, best grown, best rooted, cleanest, healthiest stock of Fruit Trees in Southern California, all true to label, consisting, as specialties, of Olive, Orange, Lemon, Lime and Bartlett Pear. Price List free. Address

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OLIVE TREES FOR SALE.

One and Two years old. Warranted all Clean and Free from Pests. C. W. CRANE,

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Over 6,000,000 PEOPLE USE

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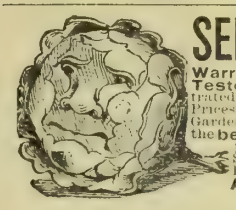


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D. M. FERRY & CO. are admitted to be the LARGEST SEEDSMEN *in the world.*

D. M. FERRY & CO'S Illustrated, Descriptive & Priced SEED ANNUAL For 1887 will be mailed FREE to all applicants, and to last season's customers without ordering it. *Invaluable* to all. *Every person using Garden, Field or Flower* SEEDS *should send for it.* Address

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SEEDS SENT FREE.

Warranted. Fresh, Reliable, Tested seeds cheap. Illustrated Catalogue Sent free. Prices lowest. Packets 5 cts. Gardeners say our seeds are the best. Thousands of choice packets given away. Special *wholesale* price list to *Market Gardeners.*

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Rockford, Ill.

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CENTENNIAL CHERRY, LOVE-ALL PEACH, and full assortment of Fruit Trees, Grapevines, Shade Trees, etc. LEONARD COATES,
(Successor to COATES & TOOL)
P. O Box 2. Napa City, Cal.

ORANGE TREES.

We are the sole agents (in Northern California) of Messrs. Twogood, Edwards & Cutter, of Riverside, for the sale of their Orange Trees, budded on the popular Florida Sour Orange Stock, and are prepared to book orders for carload lots or less. Now is the time to secure a good Orange grove cheap. Send at once for circular and price list. All orders must be booked prior to February 20th, to insure getting trees. Don't miss this opportunity.

We are also prepared to furnish a full line of Nursery Stock; also Seeds of all kinds, both wholesale and retail. The very best Stock at bedrock prices. Send for Seed and Tree Catalogue and Special Prices for large lots. Address

W. R. STRONG & CO.,

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The above is a True Representation of the Genuine Adriatic Fig

GROWN BY US.

☞We also offer a full assortment of all kinds of Fruit Trees and Ornamental Plants, Olives, Roses, guaranteed genuine and free from all disease and pests.

GUSTAV EISEN, Manager FANCHER CREEK NURSERY, Fresno, Cal.

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WHITE ADRIATIC FIGS.

THE LARGEST STOCK OF TREES IN THE STATE.

The Only Fig that Should be Planted for Drying.

ALSO A LARGE STOCK OF OTHER TREES:

Apples, Pears, Peaches, Plums, Prunes, Apricots, Cherries, Nectarines, Olives, Oranges, Lemons, Shade Trees and Ornamental Shrubs, Greenhouse Plants, Roses, Etc.

A Complete Assortment of Rooted Grapes and Cuttings.

ALL TREES WARRANTED FREE FROM SCALE OR APHIS.

☞Catalogue Free. W. M. WILLIAMS, Fresno, Cal.

EVERYTHING THAT IS

NEW IN SEEDS



RARE IN PLANTS

is offered and described in our

CATALOGUE No. 446, which this year we send out in an illuminated cover. The Catalogue is replete with new engravings of the choicest flowers and vegetables, many of which can only be obtained from us; and contains, besides, 2 beautiful colored plates, and very full instructions on all garden work. Altogether it is the best ever offered by us, and, we believe, is the most complete publication of its kind ever issued. Mailed on receipt of 10 cents (in stamps), which may be deducted from first order. Please be sure to order Catalogue by the number.

PETER HENDERSON & CO. 35 & 37 Cortlandt St., NEW YORK.

SEEDS! SEEDS! SEEDS!

For 1886 and 1887.

FRESH STOCK OF

GARDEN AND FIELD SEEDS.

All of this year's growth, for sale at the GEO. F. SYLVESTER SEED WAREHOUSE, Nos. 315 and 317 WASHINGTON STREET, SAN FRANCISCO. SAMUEL BRECK, Proprietor.

Don't Buy

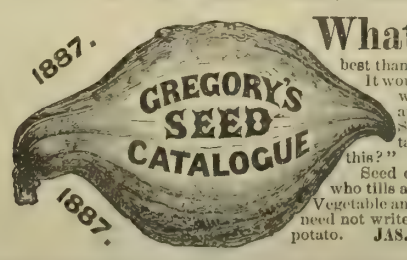
SEEDS, ROSES, PLANTS

FRUIT OR ORNAMENTAL TREES, GRAPE VINES

OR ANYTHING IN THE NURSERY LINE, without first writing for our valuable FREE Catalogue, the BEST we ever issued, containing the Rarest New and Choicest Old.

21 LARGE GREENHOUSES
33d YEAR. 700 ACRES.

THE STORRS & HARRISON CO. PAINESVILLE, OHIO.



What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?"

AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them FREE my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. JAS. J. H. GREGORY, Seed Grower, Marblehead, Mass.

BURPEE'S FARM ANNUAL FOR 1887

Will be sent FREE TO ALL who write for it. Send address on postal for the most complete CATALOGUE published, to

It is a Handsome Book of 128 pp., with hundreds of illustrations, 3 Colored Plates, and tells all about THE BEST GARDEN, FARM and FLOWER SEEDS, BULBS, PLANTS, Thoroughbred Stock and Fancy Poultry. It describes RARE NOVELTIES in Vegetables and Flowers of real value, which cannot be obtained elsewhere.

W. ATLEE BURPEE & CO., Philadelphia, Pa.

BEST & DRIVER'S IMPROVED COMBINED HARVESTER for 1887

Manufactured at the

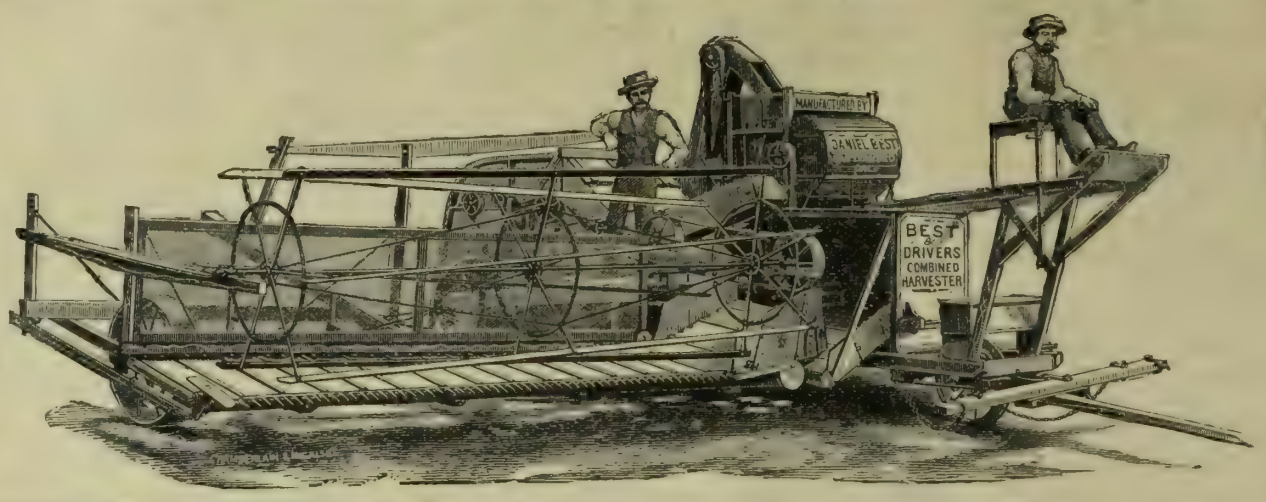
DANIEL BEST AGRICULTURAL WORKS, San Leandro, Cal.

STANDARD SIZE

—IS—

14 Feet.

Will make any size that is ordered.



Belt

—AND—

Geared.

The BEST & DRIVER IMPROVED Combined Harvester, without doubt, will be the Leading Machine this season, is the verdict of all those who have inspected it.

IT HAS VALUABLE IMPROVEMENTS THAT ARE NOT FOUND IN ANY OTHER COMBINED HARVESTER MANUFACTURED. SPACE WILL NOT ALLOW US TO ENUMERATE HERE; AN INSPECTION OF THE MACHINE WILL CONVINCE YOU.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvesting expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** attached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, so that they will not fall to pieces under a hot sun.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly clean the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner, mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

Write for Circulars. For further information, prices, etc., address

DANIEL BEST, San Leandro, Alameda Co., Cal.

100,000 FRUIT TREES.

SPECIAL OFFER!

ROYAL BLENHEIM and HEMSKIRKE APRICOTS, on Peach and Apricot, 3 years, transplanted. Good roots and heads.

FRENCH PRUNES (Petite d'Agen), on Peach, Apricot and Almond, 1, 2 and 3 years; all good stock.

BARTLETT PEARS, 1 and 2 years; good stock.

JAPAN (Kelsey) **PLUMS**, on Almond, 1 year.

EARLY CRAWFORD PEACHES, on Almond, 1 year.

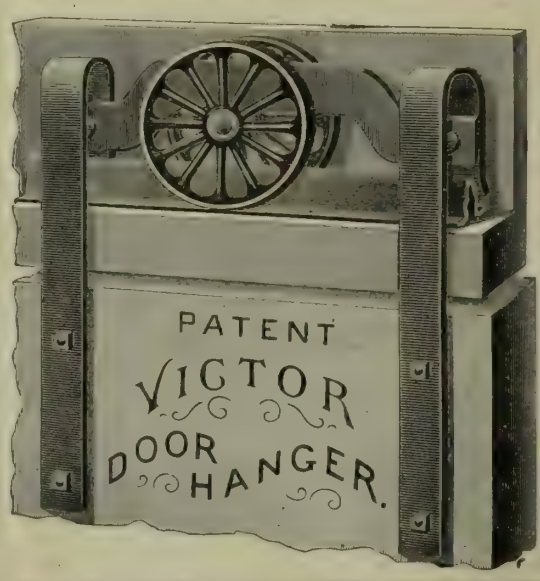
HUNGARIAN PRUNE, WASHINGTON and YELLOW EGG PLUMS, on Apricot, 1 year.

YELLOW NEWTON PIPPIN APPLES, 1 year.

☞The above are clean and thrifty, and will be sold at low rates if applied for soon.

TRUMBULL & BEEBE, Seedsmen,

419 and 421 Sansome Street, - - San Francisco, California.



VICTOR

WROUGHT IRON

Barn Door Hanger

—AND—

RAIL.

THE BEST AND CHEAPEST Anti-Friction Barn Door Hanger and Rail in the market, because it is Strong, Simple, Silent in Operation, Secure to Rail.

PRICE OF HANGERS.

	PER DOZ. PAIRS.
No. 1, for doors 3 to 6 ft. wide	$15 00
No. 2, for doors 6 to 9 ft. wide	16 50
No. 3, for doors 9 to 12 ft. wide	18 00
No. 4, for doors 12 to 18 ft. wide	26 50

RAIL.

In 2-foot lengths, per foot.....7 Cents

FOR SALE BY

AUSTIN BROS.,

310 Main Street, Stockton, Cal.

McLEAN'S ORCHARD & FIELD CULTIVATOR.

Awarded First Premium

At the State Fairs of 1884, 1885, and 1886; also numerous County Fairs.

THE FAVORITE.



☞For further particulars inquire of

N. McLEAN,
Watsonville,
Santa Cruz Co.,
California.

WAKELEE'S

THE BEST IS THE CHEAPEST.



DON'T BUY AN **Inferior Article** BECAUSE IT IS **More Profitable to some one else.**

SQUIRREL AND GOPHER EXTERMINATOR!

IN 1-LB. AND 5-LB. CANS.

GILL'S NURSERIES, Oakland, Cal.

WE NOW OFFER FOR SALE a large and complete stock of

FRUIT, SHADE and ORNAMENTAL TREES, SHRUBS and GREENHOUSE PLANTS,

Including Azaleas, specimen Araucarias Imbricata, Camellias and Rhododendrons, Roses and Pinks. Our Specialties, for which this place has long been noted: Seedlings; Cypress and Laurustinus, all sizes, for hedging; **50,000** Blue and Red Gums transplanted in boxes. We invite inspection of our stock. Send for Descriptive Catalogue. Address, **E. GILL, 28th St., bet. Adeline and Market, near San Pablo Avenue, OAKLAND, CAL.** ☞San Pablo Avenue Cable Cars pass close to the Nurseries.

DEWEY & CO., { No. 252 MARKET ST. / Elevator 12 Front St. } **PATENT AGENTS.**

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 8.] SAN FRANCISCO, SATURDAY, FEBRUARY 19, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

Yerba Mansa.

We give on this page an engraving of a native plant which, no doubt, many of our readers have observed, as it is quite a conspicuous plant and sometimes occurs in considerable masses, especially in the Southern counties, although it is widely distributed over the State. It is found in moist places and is most abundant where there is a tinge of alkali in the soil. It is a plant of valuable medicinal properties, and, for the purpose of giving opportunity to test these, some of the plants were set in the medicinal division of the Garden of Economie Plants at Berkeley. The root stock of the Yerba Mansa was much employed by the Indians as a remedy for a number of bodily ailments, and was probably most useful in diarrhea because of its astringent properties due to the amount of tannin contained in it.

We reproduce this engraving of the Yerba Mansa from the report of Dr. Vasey, Government botanist, in the Department of Agriculture Report for 1885. The botanical name of the genus *Anemopsis* was given because of the resemblance of its head or cone of flowers, with its white involucre, to an anemone. The plant is an herbaceous perennial, and grows in California, Arizona and Northern Mexico. It belongs to the natural order *Piperaceæ*. It has a thickish, creeping root-stalk, which has a pungent, aromatic, and astringent taste. From this proceeds a number of oblong or elliptical leaves, from two to six inches long and half as wide, on stalks as long as the blade. These leaves are entire, obtuse or obtusish, with a thick midrib and a two-lobed or heart-shaped base. From the same point also proceed one, two or three flowering stalks, six to eight inches high, which are naked below, near the top producing a broadly ovate, clasping leaf, and one or two leaves like the radical ones, but smaller, terminating with a conical, compact flowering spike, one-half to one and one-half inches long. This flower spike has at its base an involucre of five or eight whitish, oblong leaves, which look like petals, and are about an inch long. The true flowers are on the conical receptacle above the involucre. They are very small and numerous, each with a small, whitish bract at its base. Each flower has six to eight stamens, and three or four spreading stigmas joined below in a many-seeded ovary.



YERBA MANSA—Anemopsis Californica.

Beginning Betimes.—The directors of the Agricultural Park Association at Santa Rosa are clearly in favor of taking time by the forelock. At their regular monthly meeting, February 5th, it was the unanimous sense of the board, says the *Democrat*, that immediate steps should be taken to arrange for a fair this year. To that end various committees were appointed, including a general Committee on Exhibits, for the purpose of bringing out a more complete representation of the products of Sonoma county than has ever been displayed.

War's Lessons.—Our well-known contributor, Edward Berwick, lately delivered a lecture upon "War's Lessons," at Y. M. C. A. hall, in this city, ex-Governor Perkins presiding. In behalf of peaceful settlements of international differences, Mr. Berwick urged that wars are, first, *not* of a divine origin; second, costly; third, unnecessary; fourth, ineffectual. We have on hand and hope soon to publish an extended report of his address.

Gen. Greely, Chief Signal Officer.—On the 15th the President sent to the Senate the nomination of Capt. Adolphus W. Greely, of the Fifth United States Cavalry, to be Chief Signal Officer, with the rank of Brigadier-General. The promotion is generally commended, and except those who are disappointed at not securing the honor, every one appears well pleased. The President says he appointed him on account of his knowledge of the service and peculiar fitness for the place.

By the Isthmian Route.—The Pacific Mail and the Panama R. R. Companies having settled their differences, it is announced that but two steamers a month will leave S. F. for the isthmus after March 1st. An immediate rise in rates is looked for.

Wheat Culture in India has grown to such large proportions and yielded such liberal profits that Indian farmers are now giving more attention to the purchase of farming implements and machinery, and a large demand is looked for. English manufacturers are advised to inform themselves from the reports made to the Government every year respecting the results of the trials of tools, machines and implements in the different provinces, and Americans should take the hint.

The Southern Pacific land office is experiencing an increased demand for good agricultural land in the southern part of the State, and the sales so far this season exceed those for the corresponding period of last year. The prices in the aggregate are low.

The Legislature.

Our law-makers this winter have displayed a marvelous *penchant* for traveling. The State has been so thoroughly inspected that some of the members ought to be able to write its geography, draft a topographical map, climate and other etcetera furnished gratis. So bent are they on sight-seeing that no less than five committees last week seized their grip-sacks and started out in the rain to envisage the public buildings at Berkeley, visit the militia in their armories at San Jose, Stockton and other places, hold their noses and run through Chinatown; and the Committee on Fish and Game having little to do and anxious to see something, thought it would look enterprising to go up the mountain and take a look at the sawdust in the Truckee river. There they were snowed in and had to telegraph for money, provisions, and leave of absence. The last heard of them they were reciting "The Beautiful Snow."

It is gratifying to learn that both the Senate and Assembly Committees on Irrigation have been busily at work this week. It is among the most important measures pending. Upon the ability of the farmers and vegetable growers to secure the use of water for their crops, the prosperity of the State largely depends. It is a big question to tackle, and whether the present Legislature can come any nearer solving it than their predecessors remains to be seen. Wright's bill, introduced in the Assembly, and Abbott's bill, introduced in the Senate, seem to be attractive, if there is no "joker" hidden in the scheme. These bills provide for the creation of irrigation districts wherever there are 50 freeholders having land to be benefited by such use of water, and a two-thirds vote of the said district can be obtained. Such districts shall be governed by a Board of Directors, having the power to purchase all the land and water needed by condemnation, and to see that the water is distributed in the ratio of the area which the land of each owner bears to the total acreage of the district. The bill introduced by Assemblyman Vincent, of Fresno, relates to the same matter and is substantially the same. Any honest effort to secure an equitable distribution of water should be encouraged, rather than no step be made in this direction.

We here give the readers of the Rural an approximate idea of what it costs to enjoy the luxury of a Legislature every two years. These items are taken from the General Appropriation bill:

For per diem and mileage of Senators	$21,000
For per diem and mileage of Assemblymen	41,500
For pay of officers and clerks of Senate	5,500
For pay of officers and clerks of Assembly	6,500
For contingent expenses of the Senate	20,000
For contingent expenses of the Assembly	30,000

With such figures presented, the question doubtless arises whether it would not be more beneficial to the State to appropriate that vast amount of money for some benevolent public institution than to have it squandered in junketing trips by a lot of unscrupulous politicians. It may be interesting to figure the cost of each bill, taking as a basis that in 44 days four bills have passed both houses at the expense above quoted.

Dividing Tulare.—The scheme to make a new county in the Mussel Slough region meets with strenuous opposition among the taxpayers of the Fresno and Tule River country.

THE VINEYARD.

Shall California Make Sophisticated Wines?

University Experiment Station Bulletin, No. 65.

The discussion concerning the definition of a pure wine, and of legislation relating thereto, appears to have reached a stage at which it is desirable to recall, to the minds of those concerned, the "bottom facts" of the case, which have been lost sight of in not a few of the arguments advanced in the premises. On the one hand, extreme purists have gone so far as to contend that even the blending of wines from different grapes constitutes a departure from strict rectitude; while on the other hand, we find gravely advanced, in public print as well as speech, and proposed to be enacted into a State law, a declaration that only poisons shall be excluded from the ingredients with which wines may be doctored for the public benefit. It has long puzzled philosophers and law-givers how a poison is to be defined. In the present case, the purest product possible contains as one of its essential ingredients a substance that is declared by a respectable portion of American opinion to be the very poison of poisons, which no one should touch, taste or handle. It is easy to foresee how adroit lawyers and easy-going "experts" would, under such a law, manipulate almost any but the most extreme cases, so as to produce a disagreement of juries.

It is a well-known characteristic of a primitive condition of human knowledge, that for any ill that befalls, a special medicine is sought. Among the greatest difficulties encountered by conscientious physicians is the persistent demand of patients for some tangible medicine, in cases when nothing but a change of hygienic conditions is needed, or can accomplish a cure. Similarly, in a primitive condition of the wine-making industry, the tendency is to rely on medicines to cure all faults found in the wine, instead of preventing the occurrence of such faults by the application of sound principles in its preparation.

California winemaking is just emerging from this primitive condition, in which wines were made from an indiscriminate mixture of Mission and other wine and table grapes, by the "go-as-you-please" process of fermentation, or by equally primitive methods derived from the producer's dim recollection of what he saw in Germany, France or Italy in his youthful days. The wines thus produced were to a large extent so thoroughly faulty, that the dealers who bought them took great risks in their preservation and transformation into anything corresponding to a commercially recognized grade. The materials for making proper blends were not obtainable, and the temptation to produce by artificial additions at least the semblance of the right thing was great, even when the knowledge of suitable methods of after-treatment existed. This, however, was by no means generally the case; winemaking and dealing was undertaken like any other business venture, without any special knowledge of the subject, because it was expected to pay, and with the sole idea of producing, as cheaply as possible, something that would sell as wine. The injury done to the reputation of California wines during this primitive period still weighs down the prices and the estimation of our best products, which are mostly hid away under foreign labels; outside of the State, it is still a mooted question whether we can produce anything in the shape of wine that will remain sound for some years, and that will not show the earmarks of its origin in some objectionable form. Worse than this, however, there remain among us, as remnants of the olden time, many of the bad practices both of producers and dealers. Even in this year of grace, the dealer is abroad who tries to persuade the producer that "wine is wine," no matter whether Mission or *Cabernet Sauvignon;* that all this talk about distinctions of kinds and qualities is made by unpractical men who only make trouble for the trade, and that 15 cents per gallon all around is about the right gauge.

It is quite time that these remnants of the good old style should be definitively consigned to the rubbish pile. Producers are fast awakening to the conviction that a definite plan must be pursued in the planting of vineyards, in order that they may themselves be enabled to proportion properly the blends desired in the market. They are also learning that winemaking is not altogether the simple and easy thing it was supposed to be, but requires skill, judgment, and close attention to details which, only a few years ago, were scouted as being beneath the notice of "practical" men. A large proportion of the best Old World varieties of wine grapes has been imported, and their local adaptations are fast being recognized and systematically studied with a view to the production of definite qualities conforming to the commercial demand of the world, *by the blending of suitable varieties.* A large number of producers who have created a direct market for their products, independently of wine-dealers, have successfully arranged their production so as to be independent of any medication whatsoever, and furnish wines conforming in every respect to the demands of legitimate commerce, as well as to the tastes of consumers. They furnish the living proof that "doctoring" is as unnecessary as it is objectionable from every point of view.

It is this most legitimate and desirable progress from crude mixing of miscellaneous ingredients into the semblance of wine, to the preparation and profitable marketing of an unimpeachable product, that is crossed and impeded by the manufacture of spurious wines and by the false pretense that the demands of the market require the sophistication of the product of the grape. If some wine-producers or dealers have failed to keep up with the progress of the times, and are thus not in a position to command the materials for proper blends from their ill-assorted vineyards, that is their misfortune or fault. It hardly justifies them in advocating the need and propriety of the use of cherry juice in making up deficiency of color; least of all does it justify their opposition to a legislative measure designed to enable the producers of pure wine (as defined in every dictionary and encyclopedia) to place a distinguishing mark upon the product of their skill or progressiveness.

Taking for granted that it is desirable to restrict as much as practicable the introduction into wines of any substance "not the product of the grape," a brief consideration of the ingredients of wine and must will show how far the need of any intervention of artificial additions can be maintained. If it can be shown that all desirable results can be compassed by the legitimate method of blending natural products, the wine-doctors' expedients should be repudiated as being needless as well as pernicious.

First, as to *water* (which after all is the most abundant ingredient of wine, since it constitutes from 81 to 92 per cent of dry wines), it must, of necessity, be used in the legitimate industry by which evaporated or "condensed" must is converted into wine by fermentation. Its use is also justifiable when by natural evaporation, in certain seasons, the grape juice contains too much sugar to allow of being fermented into dry wine, while light-bodied musts are not available for blending. The requirements of a sound fermentation limit its excessive use prior to that process; but the "stretching" of fermented wines, by its addition, is liable to gross abuse. When heavy red wines need dilution to conform to the requirements of the market, an abundance of light wines can be found for the purpose. Those of the Folle Blanche, Sultana, Burger and others are as neutral as could be desired, if suitable light red wines should not be available. There is no valid excuse for the use of water *after* fermentation.

Sugar is next in quantity to water. In the sunny climate of California, a serious deficiency of sugar is quite exceptional, provided the vineyard has been stocked with due regard to the local climate. A simple calculation shows that at the ruling prices and the average production of grapes per acre, the natural sugar of the grape is the cheapest available, since the best of commercial glucose introduces into the wine elements of instability, as well as other objectionable features impossible to overcome. Refined cane or beet sugar, when added to must prior to fermentation, is promptly converted into pure grape sugar and ferments out as such. Hence its use for the purpose of strengthening weak musts would seem to stand on the same basis as that of water for the opposite purpose; the sugar introduced becoming in every respect as identical with that of the grape, as the water. On the score of cost alone, however, it would in practice naturally be superseded by that of condensed must, so soon as this material shall be generally available.

As regards fortification with *alcohol* in the shape of "neutral spirit" instead of grape spirit, as advocated in the late district convention, it must be admitted that *really* "neutral" spirit would be objectionable mainly on grounds of true policy, in diminishing the market for our own brandy product. But most of the commercial article would infallibly make its presence felt in any delicate wine for years.

As regards *acid*, all "cream of tartar" is the product of the grape, and so is tartaric acid. There can be no intrinsic objection to the introduction of as much tartar as anybody may desire, into must or wine. Tartaric acid stands on a slightly different basis, as its presence, in place of its naturally occurring compound, renders the wine more liable to "turning" and other troubles. Those who attempt to use it on the large scale will also find that here, again, it is better to provide against any such expensive necessity by planting or purchasing a proper selection of acid grapes, by blending which with such troublesome varieties as Trousseau, Mission and others, a healthy fermentation can always be secured.

Glycerine and *carbonic gas* are natural products of wine fermentation. But no well-made wine requires the addition of glycerine, which serves mainly to hide avoidable faults. Carbonic gas is a legitimate ingredient of wine whenever wanted.

Color is probably the point which gives rise to more sophistication than any other; not only because the valley wines, which thus far have formed so large a proportion of the vintage, are generally deficient in color, but chiefly because in the "stretching" of wines, the color is that which suffers most obviously, and is most readily imitated by outside additions so as to satisfy the average consumer.

But since our vineyards have ascended from the valleys into the hill country, the supply of color proves to be as abundant in this State as anywhere in the world. In fact, it would be difficult to find a heavier showing of color per acre than that of the *Gros Verdot* at Cupertino, which, with a tint about three times as deep as that of the average Zinfandel wine, yielded at the rate of about 25 tons of grapes, or say 3500 gallons of wine per acre, competing in cheapness with "cherry juice." The Grosseblaue, the Bouschets and others are similarly available for the more common wines, while for those of high degree we have the Cabernets, Beclan, Tannat, etc.

In regard to *tannin*, it was at one time thought that California wines were likely to be deficient, and this remains true of most of the valley wines; but the products of the hill vineyards leave little excuse for the use of tannin from outside sources. Both sides of the Santa Clara valley, as well as the hills of Napa and Sonoma, and even portions of the San Joaquin valley, have furnished wines of extraordinary tannin contents. There will be little difficulty in securing, hereafter, a sufficiency of blending wines for bringing clarets up to the Bordeaux standard in this respect.

Commercial (oak) tannin is not, chemically, or hygienically, the same as wine tannin; and its use should, as a rule, be restricted to the *fining* process. This process, as now largely practiced, is responsible for a great deal of the fault found elsewhere with California wines. Our winemakers have not mastered the fact that fining is the last process in the finishing of wine; that it is in every instance an evil with respect to the delicacy and zest of the product, and should be practiced as sparingly as possible; and that a very large proportion of well-made, sound wines never need fining at all, if subjected to appropriate after-treatment, notably to frequent racking and aeration. It is here, especially, that hygienic treatment, instead of medication, needs to be generally adopted.

Finally, when wines are not entirely sound—and with the methods of fermentation now in vogue this is a very prevalent condition—the remedy to be applied should not lie in the use of antiseptics, sulphuring, salicylic or boracic acids and the like, but in the simple and rational heating process devised by Pasteur, and named for him. The "*Pasteurizer*" should be an indispensable appliance in every wine-house; and its use, if properly understood and practiced, will at once do away with nine-tenths of all doctoring for unsoundness. The universal adoption of this simple and inexpensive expedient will save all losses now sustained in the shipment of our young wines, and will soon do away with the reproach that "California wines will not keep."

If in the face of all these facts and legitimate substitutes for medication, there are those who desire to adhere to the old doctoring system, it is at least the right of those who do without them and furnish the consumers the pure product of the grape, to have a legalized mode of expressing the fact on the packages.

E. W. HILGARD.

Berkeley, February 11, 1887.

Distilling Slops for Vine Dressing.

We clip the following interesting information in regard to an economical use of distilling slops from the St. Helena *Times:*—We witnessed the other day at a prominent distillery near this town the utilization of distillery slops, namely, the process of extracting the argols contained therein, from which cream of tartar is manufactured. So far, we understand, this valuable refuse of the distillery has been allowed to find its way through the gutter to the creek, not even has it been used as a fertilizer, notwithstanding the fact that it contains the sum and substance found in the vine and its fruit.

The proprietor, who is bound to find out whether or not it will pay to utilize distillery slops as stated, now makes a trial to that end, keeping a strict account of all labor spent until the argols are all ready for the market. It requires no investment of capital, inasmuch as all tanks and other utensils used are always on hand at a distillery or cellar.

The process of crystallization is as follows: The liquid in question, which constitutes the residue of the wine sediment or piquet after all spirits have been extracted, is led, hot, into low tanks in which a number of grain sacks, cut in two lengthwise, are vertically placed, fastened above to a rope or a rod to keep them in that position. During cooling of the liquid the process of crystallization goes on, the argols forming themselves and accumulate on the sacks placed there for the purpose.

Another way, in place of sacks, to facilitate crystallization, is to use brush, which is put in the tank in bundles. When the process is over the crystals are freed therefrom by shaking, while the sacks have to be scraped and washed in water. The brush is used to advantage because the more surface is obtained on which the crystals settle—it also saves labor. The liquid now remaining is a good fertilizer. We were convinced of the fact when the proprietor showed us a tract of land in his vineyard where these slops had been applied, there was a rich vegetation, while not far from there, where it had not been applied, no vegetation to speak of had shown itself.

THE San Francisco & North Pacific Railroad Company have just completed a new bridge across the Russian river at Healdsburg to replace the old wooden Howe truss-bridge which did duty there for a long time. The new bridge is a Pratt combination, with two spans of 198 feet each, and is built on concrete piers. Its strength was tested the other day by running three of the heaviest locomotives of the company across it.

THE DAIRY.

The Movement Against the Oleo Law.

Col. R. M. Littler, secretary of the National Butter, Cheese and Egg Association, and a vigorous fighter of bogus dairy products, sends us the following:

Your special attention is invited, and your prompt co-operation asked, to sound the alarm and act against the concerted movement which is being made by the manufacturers of "oleomargarine," butterine and other imitations and counterfeits of butter, to undo what has been done by national and State legislation. They are desperate and they are (and they can afford to) prepared to spend a half million or a million of dollars, if necessary, to accomplish their purpose. The fact that May 1, 1887, is the date when licenses for manufacturers, wholesalers and retailers, must be renewed, prompts the enemy to earnest and boldest action, as they do not want to be compelled to again put up the money for retailers, many of whom are smart enough to understand that they can get that. The bogus butter men are even approaching the creamery men, asking their help upon the plea that they will get a better price for their best creamery, if they have butterine-makers for customers, etc. We do not believe intelligent, fair-minded creamery men can be hoodwinked by such argument; they certainly understand that their interests are with the hundreds of thousands of farmers, their patrons who furnish the milk and cream to them, and not to the 28 or 30 wealthy manufacturers of bogus butter who wish to work off on the unsuspecting consumer compounds composed mostly of tallow, lard, cotton-seed oil, chemicals, salt and water and 10 or 20 per cent of genuine butter, to give some character to their counterfeit, at butter prices, entirely regardless of the injury they are perpetrating upon the health and future physical condition of the consumers of their bogus product.

The oleo gang have been flooding the land with petitions in blank (for signatures of any persons). They propose to make a charge on Congress soon. On Sunday last, see date of their circular (a correct copy here given), they continued their conspiracy against the people.

[COPY OF CIRCULAR.]

OFFICE OF GARDEN CITY DAIRY CO.,
19 & 21 Wabash Ave.
Oleomargarine Factory No. 1,
First District of Illinois,
Cor Seventeenth & Grove Sts.
CHICAGO, Jan. 30, 1887.

DEAR SIR: You will have noticed in the daily papers that a bill has been introduced into the United States Senate to reduce the license tax for dealers in butterine and oleomargarine.

If you wish this license tax for merchants and dealers reduced or abolished, please write a personal letter immediately to your U. S. Senator and another letter to your Representative at Washington, D. C., and ask these gentlemen to vote for the above bill. Don't fail to write these letters quickly. If you delay it will be too late. . Your Senator and your Representative at Washington will vote to reduce your license tax if you will write to him and ask him to do so. Respectfully,

GARDEN CITY DAIRY CO.

Since the National law was enacted, there has been a much better market for farm and dairy butter; creamery has not advanced to 40 to 60 cents, as the butterine men said it would if there was a law against oleo. If it had advanced, these same counterfeiters would have a great argument why their kind of butter making should be permitted without legal regulations.

The present condition of the butter market is easily accounted for, simply because "the supply is greater than the demand." Under the teachings of improved methods by dairy conventions and the agricultural press the yield of butter per 100 pounds of milk is four to four and one-half pounds; formerly it was but three to three and one-half pounds. In my own State, Iowa (where I have lived 30 years), the make of butter for the past three months has been at least one-half more than for the same months the previous year; other dairy States show the same result. We also know that the exports of butter have decreased. See the figures (official): Packages American butter imported at Liverpool, three months ending Jan. 1, 1884, 128,172 packages; 1885, 115,819; 1886, 57,640; 1887, 35,348. The cheese trade has also suffered. Read these figures: For three months ending Jan. 1, 1884, 516,601 boxes; 1885, 520,433; 1886, 379,624; 1887, 348,892.

FRIENDS: The protection of agriculture and the dairy interests against the assaults of these enemies is of vital importance to the people of the United States. Every merchant, tradesman, mechanic and professional is interested, for when agriculture is impoverished and languishes, disaster and ruin must follow. Your duty is to work. Write to your State legislators and to your Representatives and Senators at Washington; let them hear from you and from your neighbor, and at once. Remember, the oleo men hope to have the license to sell their product repealed and want it done by this Congress, or by May 1, 1887. Do not leave all the protesting and work against this proposed outrage to others; you act now. Believing that you will, we thank you.

FELLOW-CITIZENS: The question is, Shall these score or two of unscrupulous manufacturers of bogus products be permitted to strike down the farmers and dairymen and divide all the resources thereof, or shall the profits of the farm.

be distributed by the farmers among the people? Remember the agricultural interests of the country pay 74 per cent of the taxes.

A Holstein Record.

B. B. Lord & Son, of the well-known Sinclairville Stock Farm, Sinclairville, N. Y., send us the recently completed year's milk test of the cow Glenburine, as follows:

Glenburine (506 N. H. H. B.), 8788 H. H. B., was imported by us Oct. 15, '84, with a Holland milk record of 82½ lbs. in a single day. She was sired by Dist. Bull Jacob, whose dam has a milk record of 86½ lbs. per day, and 19½ lbs. of butter in seven days. Her dam Trijntje has a milk record of 91½ lbs. per day, and a butter record of 20 lbs. in seven days. On the morning of Nov. 10, '85, Glenburine dropped the beautiful bull calf Duke of Hallowell, 1443 H. F. H. B., by Sir Archibald, 3045 H. H. B., whose dam, Kroonije, has a milk record of 96½ lbs. per day, and a butter record of 18 lbs. 12 ozs. in seven days.

On same day, Nov. 10, '85, Glenburine commenced her milk record, and in 10 consecutive months gave 20,138½ lbs., an average of 66 21 7-38 lbs. per day; highest day's yield, 89 lbs., given Jan. 14, '86. For seven consecutive days, commencing Jan. 8th, she gave 606 lbs., an average of 86-66 lbs. per day. For 30 consecutive days, commencing Jan. 2, '86, she gave 2466 lbs., an average of 82 1-5 lbs. per day. She also made 21 lbs. of unsalted butter in seven days in January.

The following is a monthly statement of her record for 10 months from Nov. 10, '85, to Sept. 9, '86:

Nov. 10th to Dec. 9th, inclusive,		1727½
Dec. 10th to Jan. 9th,	"	2357½
Jan. 10th to Feb. 9th,	"	2405
Feb. 10th to March 9th,	"	2060½
March 10th to April 9th,	"	1945½
April 10th to May 9th,	"	1837
May 10th to June 9th,	"	2000½
June 10th to July 9th,	"	2112½
July 10th to Aug. 9th,	"	1940
Aug. 10th to Sept. 9th,	"	1752½
Total		20,138½

This record is the more remarkable when we take into consideration the fact that Glenburine has bred regularly, and is to calve again in early spring.

Messrs. Lord & Son occupy a high position in Holstein-Friesian circles. They now have a herd of upward of 100 animals, old and young. They have made shipments to this coast, and the junior member of the firm made us a visit something over a year ago. We would like to see more of their stock out here.

A VALUBLE SUBSTITUTE FOR BUTTER CLOTH.—Mr. Jas. I. Taylor, of the old-established firm of S. P. Taylor & Co., has shown us a most valuable invention in the shape of a perfectly waterproof transparent paper. As he terms it, it is the most wonderful production of the age. The paper itself is perfectly white, and possesses all the qualifications of parchment, only stronger, and free from odor or chemical taint. By dipping in water it becomes soft and pliable, and is better adapted to wrapping butter than cloth, and only one-fourth the cost. For papers having an intrinsic value it has no equal, as after being written on, it can be submerged in any liquor, and retain all of its originality. For writing purposes it is perfect, possessing a beautiful, clear, uniform surface. For covering jars, pickle bottles and vessels containing liquids, fruits, or anything affected by coming in contact with the air, it has no equal, and has been fully tested in this respect. Its many uses are too numerous to mention, but Mr. Taylor informs us he will gladly furnish samples on application.—*Marin Journal.*

THE STABLE.

Fatal Horse Disease.

EDITORS PRESS:—Your card of inquiry (regarding horses) of February 3d was not received until yesterday. Many thanks for your kind words of sympathy. The article you quote from the Vallejo *Chronicle* is not altogether correct. I will therefore give you a short account of the manner in which they seem to be handled. I have never seen anything like it, and cannot find anybody who can account for it. Last winter, upon taking up my horses preparatory to commencing plowing, I discovered that they all seemed to have something of a cold, and upon working them a short time they seemed to choke up and became very short of breath. We were obliged to take them out and hire teams to do our plowing. We could not seem to do anything to relieve them; they acted very much like a person with the asthma. After suffering some time, they commenced to drop dead, one after another, until we have lost 10 already. Only those horses that were running out were attacked, while those that we had up in the barn were not at all affected, and have not taken it from the others; it does not, therefore, seem to be contagious. Some of our neighbors have also lost horses. I had a veterinary surgeon open two of them, and found them all right, except the lungs and the pipes leading thereto, as well as the whole throat, were very much inflamed, yet not enough so in his judgment to cause death. Some of them would seem to have a hemorrhage of the lungs just previous to dropping, others did not; they seemed to die before falling, as they did not struggle after being down. It seemed to attack young and old alike. Some of them were old and not very valuable, pecuniarily, but were doing the work, so it will require quite an outlay to replace them, while others were young and valuable. I lost three fine Norman colts, from one to five years old, two Admiral colts, five years old, just broken, and some others. They are a heavy loss to me.

Perhaps some of your correspondents may be able to tell what was the trouble, but I am inclined to think it is entirely a new complaint, as I could find no one, either here or in San Francisco, who could tell me what to do for them. JOHN F. DEMING.

Glen Cove Rancho, Vallejo.

[Mr. Deming's loss was noticed in our Agricultural Notes February 5th. We would like to hear from readers who can throw light on the matter.—EDS. PRESS.]

FRUIT MARKETING.

The Fruit Union.

The meeting of the directors of the Fruit Union was held in Sacramento, Feb. 3d, but nothing was done except hold a general conference about future action. A meeting will be held in this city, March 10th, at which arrangements for the coming season's work will be made.

President Hatch has issued the following letter to the stockholders of the organization:

Members of the California Fruit Union: At our second annual meeting, held Jan. 19, 1887, at Irving hall, in this city, changes were made in our by-laws (as you will notice by referring to the inclosed copy) which will allow non-producers who are engaged in buying and shipping to become members of our organization.

This was done with the end in view of preventing such competitive action as we experienced during the past season; a competition which caused poor prices alike to all who had fruit to sell in Eastern markets.

It is to be hoped that the action thus taken will encourage all to see in the California Fruit Union a protection to all fruit interests, especially in the matter of finding markets for our surplus fruits, of which the present season promises an abundance of superior quality. We trust that it is now evident to all, that with a large crop *without* concert of action, very low prices will prevail both at home and in the East. You are asked to stand by the Union and assist to bring about the much-desired result.

The trustees entertain the opinion that to bring about the best results the Eastern markets must be thoroughly and systematically worked up and many new outlets developed.

To do this we must select from our best material our general manager, and early in the season send him East to thoroughly canvass the markets. To do this requires some outlay. Now, we have started this Union for a certain purpose. We promised each other certain things. One of those promises was that we would pay, when called upon, in installments, the amounts we had severally subscribed. Some have done so; many have not. Our books show that we now have due nearly $4000. We therefore make this urgent appeal that you will promptly send to the secretary the amount which you still owe the organization. Three calls of 25 per cent each have been made. How many have you paid? Do not compel the few to bear all the expenses while you receive the benefits. We hope that all will see the justice of our demand, and that no subscriber to our stock will need any further invitation to fulfill his promise, and thereby prevent the necessity of proceeding to collect by law.

Feeling as we do that the fact that there was a California Fruit Union was of benefit to all producers (whether members or not), equal to many times the amount of any one's subscription by enhancing the values of their productions in our home markets beyond their greatest expectations, therefore we would consider it the privilege and duty of each and every one to sustain and encourage it, and that they should bring in with them their friends to assist in making it all that we desire it to be.

Nearly all who stood in the front of the battle shipping their fruit and often losing money on their shipments that fair prices might be maintained at home, have paid all calls promptly. It is now for those who form the larger part of the delinquents, those who received the most benefits without sacrificing any of their fruit, to show that they will not be behind, but have simply been waiting as a reserve guard.

Trusting that all will feel that this is a work in which every fruit-grower is personally interested and will unite in a pull, a long pull, and a pull all together, with the firm determination that the Union must and shall be preserved and made so powerful, as we can easily do, that no competition can separate it, I am very respectfully yours,

A. T. HATCH, Pres. Cal. Fruit Union.

Special Fruit Trains.

The C. S. R. R. has issued a circular conveying the following information of interest to fruit-growers:

Until otherwise advised, special fruit trains will leave Los Angeles for Eastern points, via the California Southern, Atlantic & Pacific, and Atchison, Topeka & Santa Fe railroads, on Wednesdays and Saturdays, at 8:30 P. M. sharp. The distance by the above lines being the shortest, the C. S. road is enabled to make the schedule time for these special fruit trains to the Missouri river a trifle over four days, thus enabling consignees at the river to receive their fruit, if necessary, before daylight on Monday and Thursday mornings.

A man will accompany each train as far east as the Missouri river, to attend to the proper ventilation of the cars, subject to the approval of the conductor.

THE STOCK YARD.

Nevada Measures Against Cattle Diseases.

In accordance with the wishes of the stockmen, Mr. Thoma, on the 1st inst., introduced the following bill in the Senate of the Nevada Legislature:

SECTION 1. It shall be unlawful to drive any horse infected with glanders or pinkeye; any sheep affected with scab or footrot; any neat cattle infected with Spanish or Texas or splenic fever, or with pleuro-pneumonia; any hog infected with cholera or trichinæ, or any of said animals that are infected with or that have been exposed to any of the above diseases whatever, along any highway or traveled road in this State.

SEC. 2. The owner of any animal or animals so infected or diseased, as mentioned in Section 1 of this Act, or that has been exposed to any contagious disease, and the person or persons in charge thereof, shall keep such animal or animals safely inclosed or securely herded upon lands owned or held in actual possession by them under the laws of this State by the owner or person in charge of such animal or animals.

SEC. 3. Every person who may violate either of the preceding sections of this Act shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished therefor by a fine of not less than $30 nor exceeding $500, or by imprisonment in the county jail for a term not exceeding six months, or by both such fine and imprisonment, in the discretion of the court; and the owner or owners of any animal or animals injured or damaged by any act or omission in violation of the provisions of this Act, shall be entitled to recover treble the amount of damages sustained from the owner or owners of the diseased live-stock from which the contagion came.

Congress Memorialized.

The following memorial and joint resolution was introduced in the Senate of the Nevada Legislature by Senator Pierce, on the 1st inst.:

WHEREAS, Large sums of money are now and constantly being invested in the raising of cattle and other live-stock in the State of Nevada; and

Whereas, The remoteness of her people from market makes them peculiarly sensitive to disadvantages arising from any prejudice or fear of disease in range-cattle; therefore, be it

Resolved, That our Senators and Representatives in Congress are hereby requested to use every energy and honorable means in their power to secure the passage through Congress of House of Representatives Bill No. 10,359, the same being an Act entitled "A bill to extirpate contagious pleuro-pneumonia, foot and mouth disease, and rinderpest among cattle, and to facilitate the exportation of cattle, and the products of live-stock, and for other purposes," which was introduced by Mr. Carey, Dec. 20, 1886.

Resolved, That the Governor is hereby requested to forward, immediately, copies of these resolutions to our respective Representatives in each House of Congress.

A BIG CATTLE COMPANY.—Articles of incorporation of the California and Sonora Cattle Company, with a cash capital of $1,000,000, have been filed with the County Clerk of San Bernardino county. The incorporators are Richard Gird, George C. Perkins, W. T. Garrett, H. L. Drew, M. O'Gorman and W. K. Gird.

POULTRY YARD.

Poultry Notes.

EDITORS PRESS:—As I take quite an interest in reading the poultry "notes" in your paper, I will also write what little I know about raising and caring for poultry.

I think we have as nice clean, healthy fowls as any I have seen in California. We have about 66 hens and 4 roosters and about 50 young chickens (Plymouth Rock crossed with Brown Leghorn and Dark Brahma).

We feed them bran and shorts mixed—one-third shorts and two-thirds bran, and twice or three times a week put in a tablespoonful of cayenne pepper, in about three gallons of feed. We also keep plenty of powdered oyster shells and lime in their yard, and while feeding $1 worth of feed we get about $3.50 worth of eggs at the present price—20 cents.

Of course every one knows that poultry and poultry-houses must be kept clean. Our hen-house is cleaned once a week and lime sprinkled on the ground under their roosts. We have the roosts whitewashed—also the inside of the building.

In their drinking vessels we put small pieces of copperas, not bluestone: about a tablespoonful to six quarts of water. The copperas prevents cholera.

As a result of our care we get from 20 to 25 eggs a day, and have all winter, while our neighbors have had to buy eggs to use.

I think that the cross between Plymouth Rock and Brown Leghorn makes good healthy chickens and good layers; also good size for the table.

Hen-houses should be made warm for winter and cool and airy for summer.

I find that some think copperas and bluestone are the same, but if they will consult the dictionary they will find that copperas is sulphate of iron, or "green vitriol," while bluestone is blue vitriol, or sulphate of copper, and is poisonous. MRS. J. R. SPRINGER.

Woodland.

QUERIES AND REPLIES.

Cost of Morning-Glory Remedies.

EDITORS PRESS:—I have read the article on morning-glory from Mr. J. R. Springer—Woodland—in your paper of the 5th inst., in which he says: "They piled straw and coarse stable manure upon it, about five feet deep, and just before a rain they set it on fire. Immediately afterward they repeated the operation."

I find that the matter of economy has much to do with my agricultural operations, and I proceeded to make some figures upon the above proposition as follows: An acre of land contains 43,560 square feet; now I estimate that a good four-horse load of straw and coarse stable manure would not be far from 20 feet long, 5 feet high, and 5 feet wide, or a superficial measurement of 100 square feet, 5 feet in depth. This would make 435 wagon-loads per acre, for the first application, and the second application being the same quantity, the total would be 870 four-horse wagon loads of straw and manure per acre.

The value of this manure for fertilizing purposes, together with the cost of gathering, hauling and distributing it over the land, and the great danger of fire to fences and other property in burning up such a vast quantity of material, should not be estimated, I think, at less than $1 per wagon-load, at which the total cost of exterminating one acre of morning-glory would be $870, which is much more than the value of land in this section would justify.

I have also figured on the salt cure that was presented in the same edition of your paper by "Observer, Alameda Co.," who says: "First put on some straw and burn it off (if in the fall); apply the salt two inches deep, before the rains set in, so it will have a chance to melt. The summer after, look carefully in and around the salted place for any straggling plants, and if any are found salt them, and so on till all trace of the weed has disappeared. In about three years (if no more plants can be found), the patch can receive a heavy coat of manure and will soon be as good as the rest of the field. I have tried it on a number of patches (aggregating about four acres), and have succeeded in totally destroying the weed."

"Observer" does not give the quantity of straw used nor the quantity of manure, or its quality. He says a heavy coat of manure, which I will take to be three inches in depth, and well rotted. This would give 85 cords, of 128 cubic feet each, which, at $2 per cord, would be $170 per acre for manure.

One application of burnt straw, as computed in the Springer plan (of 435 wagon-loads at $1 each), brings the cost of straw and manure per acre to $505. Now, two inches of salt in the first application, and estimating one inch more for the whole three years of salting, or three inches in depth, we have 10,890 cubic feet per acre; and presuming that "Observer" used Alameda coarse-ground salt, which weighs 64 pounds per cubic foot, we have a result of 696,960 pounds of salt, or 348 tons per acre. This salt will cost, laid down to the average farmer, including cartage and distribution over his land, about $7 per ton, or at the rate of $2436 per acre. Now add the cost of straw and manure—$505—and we have the sum of $2941; to which should be added the loss of the use of the land for three years, which would bring up the cost of "Observer's" process of killing morning-glory to, say, $3000 per acre.

This may do in Alameda, where land is valuable, but not in San Mateo. Whether land that had been salted to the extent of three inches would ever be of any value afterward, I will leave others to settle.—R. G. SNEATH, *Jersey Farm, San Bruno.*

Feeding Beets.

EDITORS PRESS:—A neighbor has just lost a valuable cow by being choked on a piece of beet. I asked if the beets were cut up before feeding, and was told that they were; and this was what caused the trouble. Judgment should be used in these matters. Such substances as apples, potatoes and turnips, being small, round and smooth, should be cut into halves before feeding to a cow. But beets should never be cut at all when fed to any animal; a cow, horse or sheep can slice off a beet to perfection, taking at a bite just as much or little as they want. I used to cut them up for my cows, but I learned a better way. Feed them whole and there can be no danger.—W. C. DAMON, *Napa.*

A Double Blackberry Bloom.

EDITORS PRESS:—The double calla having proved a failure as a curiosity, I have another flower—a native California production—to offer in its place. While tramping in the hills last summer, I discovered a double-flowering wild blackberry, the flowers an inch or more in diameter and beautifully *variegated* with pink. A number of bushes had variegated flowers, but only one had the double ones. The flower is a very beautiful one, and if it would improve as much under cultivation as some other plants have done, it would be a very valuable addition to the floral kingdom.—W. S. HUNT, *Salinas.*

Cleaning Native Walnuts.

EDITORS PRESS:—To clean California walnuts, keep them in a damp state until the outside bark is well rotted; then put them in a barrel with water and stir with a square stick; this will not injure the nut if well dried after.—SUBSCRIBER, *Stockton.*

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Making the Grange Meetings Inviting.

Much has been said about making the meetings of the Grange social and pleasant occasions—that the Grange-room should be made as cheerful and inviting as the place will admit, adorned with pictures and bouquets of flowers, enlivened with music and song, and every brother and sister come in the most amiable mood possible, and enter with the whole heart into the spirit of the occasion. Charming as all this may be, it is only a means to an end, making fragrant the path to higher aims and duties. Every organization is crystallized around a central idea that is its life and soul, and to cherish and develop that idea is its special mission. The basic principle of the Order of Patrons of Husbandry is co-operation in all that concerns the moral, material, and social welfare of the tillers of the soil. But it is obvious that in order to work harmoniously and effectively the member should have an intelligent comprehension of every question upon which he may be called to vote or express an opinion. The Grange should then be a school of useful knowledge, educating all its members to a true knowledge of their position as a part of a great working whole, and so far as it fails in this the vitality of the Order flags and dies. The Hon. Wm. Saunders in a recent address before the Virginia State Grange said:

Men and women who are earnest in their undertakings will not long be satisfied by merely enjoying a pleasant time at Grange meetings; they crave for more substantial mental food, something that will promote their intelligence and increase their knowledge and information. And the most obvious method of securing these advantages is by the introduction and mutual discussion of topics in which they are specially interested, and surely there cannot be a wider range for such topics than those relating to practical agriculture. These subjects are so numerous and varied in their characters that any attempt to enumerate them would necessarily be imperfect. I will, however, mention a few, such as the history and literature of agriculture, botany, entomology, physics, chemistry, mechanics, geology, hydraulics, architecture, etc., so far as they relate to Husbandry.

Then there are many studies that come under the head of general agriculture, such as the mechanical and chemical preparation of soils; the physiology of plant life, how plants feed and what they feed upon, the specific relations that exist between plants and the soils in which they are growing, and the natural laws governing plant production.

It is quite likely that the Order has been derelict in regard to a number of questions that were supposed to have a political bias — all such as have been classed under the head of political economy, taxation, tariff, banking, currency, transportation and trading, and especially all legislation that concerns the industrial classes. In the late proceedings of the National Grange we find the following advice to the subordinate Granges:

When time will permit, the study of political economy could be taken up with great profit to all. It would bring forward for investigation many grave questions which are now pressing for solution—questions that are full of danger, and demand immediate consideration, for such indeed is that of the unsettled relations between labor and capital.

The young of both sexes should be familiar with the principles which underlie our fabric of government, should be conversant with the Constitution of their own State, as well as that of the General Government.

Mr. Saunders very truly said that "nothing will sooner destroy a Grange than for the members to meet, open in due form, and sit languidly looking at each other, until, from mere inanition, the Grange is closed. When this is often repeated, or becomes habitual, members soon lose their interest in the meetings and cease to attend them."

It is the special duty of the Lecturer to keep up the intellectual features of the Order by preparing lectures, essays, and articles for reading that are curt and piquant, or topics for discussion that are timely and interesting. To this end the Lecturer should possess good general information, fair literary ability, an observing and suggestive mind. But unfortunately many Lecturers fall short in these endowments, and others, that might do well, seem not to realize the importance of their duties, and consequently many meetings are held and nothing of interest is brought before the Grange.

Then most of the members may help to make the conversations and discussions of the Grange instructive and entertaining by choice selections, essays, report of readings and experiments, telling a good story or reciting a stirring poem. Every one has some gifts that may be made useful, but those who are most fertile in thought and pleasant in address should have it as a special burden to never let the interest of a meeting flag and become weary.

TEMESCAL GRANGE will confer the first and second degrees upon candidates at 2 o'clock this Saturday afternoon, as announced last week, and hopes to welcome Bro. and Sister Field, of Maine, with other visiting Patrons.

DANVILLE GRANGE is to have a dramatic and musical entertainment and social dance in their hall on Friday evening of this week, and invites all Patrons to come and enjoy with them.

Bro. Cressey on the Wing.

The following pleasant letter, which has lately come to hand, tells its own story:

ON BOARD STEAMER CITY OF MOSCOW,
From Boston to Savannah,
Off Cape Hatteras, Jan. 31, 1887.

BROTHER D.: It is blowing a gale, with the sea running mountain high. This is the fourth day I have spent in my state-room. The sea-sickness is the worst you ever saw, and I have been wondering if Jonah was as sea-sick as I am, when he took that ride in the whale's "stomach." If he was, he was well punished for his wickedness; and if the whale suffered as much, in throwing him up, as I have since leaving Boston harbor, that whale should have been put on the retired list the balance of his days. There is one thing to comfort me—I shall have a good appetite for the old plantation cornbread and bacon that awaits me in the sunny South, the home of my early manhood.

Ten days ago I was in Providence, New Brunswick, where the mercury was 43° below zero, and there was four feet of snow; seven days ago, in Nashua, N. H., mercury 34° below zero; six days ago, Portland, Maine, 23° below zero. When we left Boston, it was snowing and the thermometer was 10° below zero. It is 70° above to-day. So you see I have been subjected to the coldest weather and the deepest snow that New England has had for years, and very sudden changes, and still I live. Tomorrow I expect to be in Savannah, and go from there to the orange groves of Florida. Thence to Brunswick, Georgia; then to visit Burke and Screven counties, to see my old friends and relatives whom I last met 37 years ago, and there note the changes that our cruel war wrought in the South. Then return to New England, to rejoin my children and return to God's country of continuous summer and continuous prosperity, even California, my adopted State, where I am willing to live and die. I find in order to fully appreciate our State, it is necessary to travel in other climes.

I am writing this flat on my back in my berth, too sick to get up, and my only companion now is the RURAL PRESS of January 15th, that my daughter forwarded from Brownfield; and sick as I have been, have read and reread its chatty contents. It seems like some old friend in a strange land. It contains so much of vital interest to me—the favorable report of my beloved institution, the Grangers' Bank—may it ever be, as it has been, the farmers' friend. Also, it is grand to see that the Lick Observatory is to be the astronomical department of our University of California. Also so much Grange news, in all which I take a great interest, and hope to make my travels this winter of some interest to my Grange Brothers in California.

If you can find anything in this letter for your paper, you are welcome to use it. Please send me a copy of it to Sardis, Burke Co., Ga. I shall be lost without it. Truly, your friend,

C. J. CRESSEY.

Insurance Legislation.

Clunie's Anti-Compact bill was voted down in the Senate yesterday by a vote of 21 to 14. This result we little suspected. Clunie made a valiant fight, but the vigilance and power of the insurance companies were too much for him. This is a case of $400,000,000 of capital on one hand and the people on the other. The bill did not make war upon corporations, but upon combinations to keep up rates. That the rates have been advanced under this autocratical combination, every one knows who has had anything to do with insurance. The 104 insurance corporations should go into the market and do business as other forms of business are conducted. As Senator Rose said, "Combination kills competition." This gentleman had the courage of his convictions. He voted for the bill, though the Board of Trade of Los Angeles had telegraphed him to vote against it. The vote on the motion to strike out the enacting clause resulted as follows:

Ayes—Bowers, Briceland, Byrnes, Conklin, Crimmins, Dray, Goucher, Hall, Lenahan, McCarthy, McDonald, Meaney, Murphy, Patterson, Pinder, Spellacy, Steele, Sullivan, Vrooman and Wilson—21.

Noes—Abbott, Boggs, Chandler, Clunie, Crandall, Dixon, Gesford, Haynes, Hinshaw, Langford, McCudden, Moffitt, Rose, Roth and White—14.

Absent—Caminetti, Jones, Sargent, Walrath and Yell.

King Caucus.

EDITORS PRESS:—We wish to give utterance to a loud amen to your editorial "King Caucus" in the PRESS of January 22d. Truly he is a "cus," so full of *cussedness* that every right-minded citizen, who loves his country and desires to see it justly governed, should do all that in him lies to put down this lurking devil, whose cloven foot obtrudes its uncanny sulphurous presence everywhere, from precinct to legislative halls, State and national.

Blocksburg, Humboldt Co. CITIZEN.

Grange Invitations.

EDITORS PRESS:—Stockton Grange holds a literary entertainment next Saturday, February 19th. Would like to see visitors in the afternoon. Such improving exercises are to be held every three months.

Pomona Grange, No. 3, meets here February 24th, at 10 o'clock, to install officers and enjoy a feast with members of other Pomona Granges and fourth degree members. The installation will be open to all visitors at Good Templar hall. MRS. W. D. A.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Now that the Interstate Commerce bill has become a law and a National Commission is to be appointed to assist in carrying out its requirements, have not farmers, especially farmers who are *Patrons*, some "claims" upon the important positions now soon to be filled? No one can deny that the farmers in the Grange *first* made a determined stand against the encroachments of railroad corporations in their abuse of the charters granted them by the people. Year after year our National and State Granges maintained the position and insisted that regulation by Congress *must* come, and come it has. For six years a practical farmer, a citizen of broad views, a careful thinker, never sensational, but cool, seldom lacking in judgment, and *always honest*, presided at the head of this great farmers' organization with its million or more members. No abler presentation of the transportation question has ever been made than in his annual message to the National Grange. No one in all the land understands the question better; no one would better or more justly serve people and railroads alike on the Commission than J. J. Woodman, of Paw Paw, Van Buren county, Michigan, Past Master of the National Grange. Let the farmers and Patrons unite in respectfully asking this recognition of the work farmers have accomplished, in bringing about this much-needed reform. The law requires that the members of the Commission shall be from both political parties. As a true man of the people, *an honest man* from the *other* party, let us unite on ex-Governor Pattison, of Pennsylvania. All the thousands of Patrons who heard his noble words at the last session of the National Grange, cannot but feel that in him the people of the whole country would have a true and fearless friend. Let us talk this up at once in our Granges, bring it before Farmers' Clubs, Boards of Agriculture and other organizations. Write President Cleveland; send him memorials; write also to *your* Congressmen and U. S. Senators. Remember, "acting together" is one of our avowed principles. ACT NOW.

While we recognize the privileges and importance of all others, and concede to them every claim of right and justice, we simply ask that the importance of agriculture be also properly recognized, and equal justice be guaranteed to us. Agriculture holds a close relationship with every other interest, and all are dependent upon it for support, and it should be protected in its legitimate rights, and those engaged in it be permitted to enjoy a share of its profits.

Lord Bacon said: "We are engaged in the heroic work of making a nation." What a mission has the Grange in this direction! Patrons and patriots "working together for the good of our Order, *our country* and mankind."

The session of the Illinois State Grange at Bloomington, a few days since, was good; well attended, progress *sure*. A debt of $1300 was paid by individual and subordinate Grange contributions. Time of meeting changed to second Tuesday in December, and in State House, Springfield. One new Grange organized, several reorganized. Patrons' Aid Society, "a gratifying success," more than doubled its membership during the year. "Prospects for Grange work brighter in Illinois than for several years past."

It would be natural to suppose that the railroad corporations would have learned, by their experience in the Granger movement in Wisconsin and other States, the value of at least an appearance of fairness in dealing with those who complain of wrongs at their hands. The lesson appears to have been wasted in Nebraska, where last week a resolution was passed by the Legislature for a special committee on investigation. On this committee the Speaker, Mr. Humphrey, apparently a confirmed partisan of the railways, not only refused to place the mover of the resolution, but named all the members from among those who voted against it. It is precisely such high-handed, unnecessary and inexcusable proceedings as these that make the opposition to the railways so bitter and often so unreasonable. The railway managers find it difficult to learn the value of decent behavior even in a good cause, and certainly theirs is not so good that they can afford to wholly dispense with it.—*N. Y. Times.*

"The prejudice which has existed in the past against the organization by those engaged in other occupations is fast melting away, if not already gone. The Grange is recognized as a power for good in the State and Nation.

"Prominent men of high character and respectability, leading newspapers and journals, take every opportunity to express their high appreciation of the aims and objects of the Order, and of the good work we have undertaken and are pushing forward to success.

"We have, therefore, no room for discouragement, and must push the organization of Subordinate Granges to the end; that more of our farmers and their families may be benefited by the benign influence emanating from the Grange, and stimulated to become better men and women, consequently better and more enlightened citizens."—*Henry Thompson, Past Master Delaware State Grange.*

The Executive Committee of the National Grange have lately completed an important work assigned them, in the preparation of a list of books specially adapted to Grange libraries and farmers' homes. Much time and care was given to this work, and it will be appreciated. Patrons desiring the list, with special prices, should address, over Grange seal, Messrs. Porter & Coates, Ninth and Chestnut streets, Philadelphia, Pa., the "official" Grange Book House.

The Secretary of the National Grange has received a number of replies from U. S. Senators and Congressmen, acknowledging the receipt of copies of the resolution adopted at the twentieth session of the National Grange, and assuring him that they will have careful attention.

Bro. J. H. Brigham, Master of the Ohio State Grange, has been elected President of the State Board of Agriculture.

Bro. D. H. Thing has completed his series of "official" lectures in Vermont, and good results are already reported. At his very first meeting, where he was assisted by State Master Messer, a new Grange was cut out, and 27 men and women came forward and enrolled their names.

The Pomona Grange of Aroostook county, Me., has more than 600 members.

And still they come. Two more new Granges in Connecticut organized last week by State Master J. H. Hale; one at Plainville, the other at West Hartford.

"Another heart is in the work,
Another willing hand
Will lend its aid to clear the field
And beautify the land."

The Plague of the Microscope.

It is an old story how a European, possessed of a powerful microscope, approached a Brahman priest and requested him to inspect some delicious fruit he was about to eat. In the eye of the Brahman all life is sacred, a part of the deity, and he would suffer the most painful tortures rather than kill the most loathsome parasite. Having acceded to the request, he begged the European to present him the microscope. As it was an instrument of considerable value, the petition was denied, but by persistent persuasion he finally succeeded in becoming its owner, when he instantly shattered it into a thousand atoms, exclaiming, "You have destroyed the happiness of my life."

The microscope shows us that infusorial germs are everywhere; in the water we drink, the air we breathe, and the food we eat; that flesh, fish, fowl or fruit swarm with these hideous germs, and we must absorb them whether we like it or not. No strainer, no filter, can save us from their presence. In every particle of dust borne upon the breeze and settling over our furniture, carpets, pictures or clothes, come millions of these foul entities ready to penetrate our nostrils at the least disturbance. Even the common housefly, always a nasty plague, becomes still more so when we learn that it carries microbes as the bees carry pollen.

And now to add to our catalogue of woes and horrors, the medical journals assert that even milk, the almost universal hygienic pabulum, may be the means of transmitting infectious and epidemic diseases. That since 1870, when attention was first directed to the matter, it has been ascertained that at least 100 forms of disease have been traced to milk that has in some way become contaminated with disease-breeding germs. They assert that scarlet and typhoid fevers and diphtheria have certainly been disseminated in this way. That the properties of milk readily absorb such soluble particles in the air, and the way it is usually handled before it reaches the consumer makes it a special channel for transmitting the germs of disease. And now comes along the San Francisco Microscopic Society and partially sustains the statement of the medical journals. It seems that these enthusiastic explorers of the realm of the infinitely minute and infinitesimal have had a committee investigating whether the presence of bacilli tuberculosi may be found in cow's milk. At the recent meeting of this society, the members of this committee made an informal report, the substance of which was that milk from cows with tubercled mammæ and lungs was often undoubtedly tainted with bacilli; that rabbits and guinea-pigs, which had been fed on such milk, had died of tuberculosis — all were agreed that this form of tainted milk existed to some extent in this State. It was the general opinion that some of these microscopical pests might be expelled by centrifugal action, but the only sure way to kill them was the exposure of the milk to a temperature of 72 to 75° centigrade, and they were satisfied that the question was serious enough, now that the city was greatly alarmed at the spread of diphtheria, to warrant the authorities in subjecting the dairies that supply this city to a strict inspection. The committee will continue its investigations in this direction, and a more full and formal report of this mysterious cause of disease may be expected at no distant day. However this may be, the opinions of these microscopists, predicated upon rare and exceptional cases, should not be allowed to become a scapegoat to bear away the sins of our foul sewers, damp and decayed houses, and the need of a general rigid cleansing and purification of all parts of the city.

Stockton Notes.

EDITORS PRESS:—And still the showers come gently down, and still the hearts of the whole people rejoice! Even the benumbed tramp, carrying his all in his pack, is glad; for, through the haze of his lost manhood, he sees plenty in the giver's hand and big wages through the harvest. Even now, over a large part of the State, a fair harvest of grain is assured.

It is said that five inches of rain, ordinarily distributed—that is, with spring showers—insures a crop in this fine grain valley at least. It is a pity that some delayed plowing for rain, now that the spring promises to be wet. The ground works well, and teams are going. Some were sowing on windy Friday, just a week from the advent of the joyful rain—a bigger boom than all the other blatant booms combined. Grain that was thought killed is coming up, but the rain is too late to make much of a hay crop. Pastures are greening up to good nipping.

The Northern Citrus Fair stimulated orange planting here, and not a few are trying again in sheltered spots. They grow well in Stockton, and many are bearing large fruit. Olive trees also do remarkably well.

Feb. 13, 1887. MRS. W. D. A.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

AFTER THE STORM.—Haywards *Journal*, Feb. 12: Some of the San Lorenzo farmers had sown their grain just before the late rain, and are unable to harrow it in. Those who have their crops in now would rather they were out, as the prospects for a good crop of weeds are favorable. About Mt. Eden the storm started all the grain on the adobe not up, and when the weather clears chevalier planting will be general. The acreage planted will be the largest known for years.

ARTESIAN WATER.—Haywards *Journal:* Mr. H. Neilsen, at his place in San Lorenzo, has about as fine a supply of water as is to be found anywhere, which he uses extensively for irrigating small fruits, raspberries, blackberries, etc. He has bored two wells, one now down a distance of 550 feet, and the other, just six feet distant, 255 feet. The water comes to within six feet of the surface, and the pipe of the deepest one connects with a large cistern, thus giving him three pipes to use in irrigating. The water is lifted out of the wells by a San Jose galvanized straight-lift pump. It is astonishing to witness the volume that pours from the three pipes when in operation, and during these eight years the flow has not diminished a particle. Strange as it may seem, in sinking the last well the soil was entirely different from the first one. When down 200 feet Mr. Neilsen expected to find the same stratum of gravel, but he had to go 12 feet deeper before tapping it. He also has in the same building a large tank holding some 15,000 gallons that supplies the house, and another tank and windmill near the barn. He does not disturb himself about the weather, but if it fails to rain starts his engine and soon has a steady stream spreading throughout his favorite fruits. He also uses the engine for grinding feed, and it has cost him fully $3000 for what he has expended in this business, but it is money well invested. The man who bored his wells stated that the artesian belt extends from here along the bay to Alameda, and across the bay to Mission creek in S. F. He has bored wells for the oystermen in the bay beyond Alameda to secure a supply of fresh water, and was not long in securing an unlimited amount, that has not as yet showed any slacking up.

Amador.

PLENTY OF WATER.—Ione, Feb. 13: The rain continues, and has given us five inches for the storm and 10 for the season. The earth is now well saturated and the streams are beginning to rise. There are no more fears of a drouth, and crop prospects were never better.

Colusa.

TOO MUCH FOR BRIDGE AND LEVEE.—Colusa, Feb. 14: The iron bridge, recently constructed at Butte City across the Sacramento river at a cost of $26,000, and accepted by the supervisors about one week ago, was yesterday washed away.

GRIMES' LANDING, Feb. 14.—A break in the levee occurred this morning, about two miles below this place on the Colusa county side. The opening has widened to about 100 feet and the banks are caving in incessantly. The water is spreading over a vast expanse of young grain, which will be an entire loss, and will, if not soon shut off, inundate the Poundstone ranch of 5000 acres of the finest grain in the county. A break nearly opposite, in Sutter county, has widened to over 300 feet, but will not drown out over 100 acres of grain, for the water goes directly toward the tule, about a mile distant.

Fresno.

EDITORS PRESS:—Fresno county is just now experiencing what it has long sought for. About two weeks ago a few of our energetic business men called a meeting to devise some means of leading into Fresno part of the immigration that is pouring into the Southern country. They established an agency at Los Angeles, with an exhibit of the numerous products of this county, conducted by the Hon. Firman Church, from which we are reaping due reward. Our county is not known to Eastern people; it has never been advertised as others have. The people who have come in here have been induced by their friends. About six months ago Cory, Braly & Harvey published a pamphlet, describing part of Fresno county, of which the real estate firm of Woodward's Exchange sent 1000 into two counties in Illinois, and the result has been that a number of families have located here and many others will soon follow. A great many Eastern people have obtained the impression that the land in California is so high that there is no chance for a man with limited capital. While that objection may apply to some parts of the State, this county has opportunities that are not found elsewhere. Good land, susceptible of irrigation, can be had at from $15 to $40 per acre, and on very easy terms. Fresno county can boast of her water supply, as the whole country is threaded with numerous streams. Plains that a few years ago were nothing but a barren desert are to-day covered with great vineyards and orchards. The town of Fresno has a population of 5000 and is fast improving. Old residences are making way for business blocks which are being built up along the principal streets. The Masonic Temple is one of the largest structures, of imposing appearance, three stories in hight, and finished in luxurious style. Residences, exquisite in design, have sprung up in great numbers. The prosperity of the county is due to the colony system adopted here, there being many small holdings of from 20 to 40 acres. The people are mostly Eastern settlers, a prosperous and educated class. I would say to those who want cheap land, come to Fresno county.—A. H., *Fresno.*

Kern.

ARBORICULTURE. — Bakersfield *Californian*, Feb. 5: Dr. Fergusson has growing upon his premises specimens of the following trees: Camphor, magnolia, pawlonia, Constantinople acacia, Himalaya cedar, Lawson cypress, strawberry guava, Japan privet, Texas umbrella, umbrella acacia, Italian chestnut, Italian persimmon, and camellia japonica. Before the planting season is over we hope to see others emulate him with interesting and handsome selections, until visitors can see here every useful and beautiful semi-tropical tree known.

A NOBLE WELL.—A correspondent of the *Bulletin* says that a remarkable artesian well has been bored recently on the land of Mrs. A. S. Moore, in Kern county, a few miles south of Kern lake. The pipe has a diameter of eight inches and the water spouts up 19 inches above its top. It is estimated that the flow is more than 2,500,000 gallons in a day. A number of people from the surrounding country have gone to see the well. It was bored to reclaim what was a true desert—a dry, alkaline soil, which will be converted into a garden of artesian wells.

Lake.

ENERGETIC HORTICULTOR.—Lakeport *Democrat*, Feb. 11: George Thorington has added over 400 pear trees to his orchard this season. He has also added largely to his vineyard, and now is going to set out a few olive trees as an experiment. Mr. Thorington has probably the best selected and best-cared-for orchard and vineyard in this section.

COYOTES have made sheep-raising in Gravelly valley a very uncertain business. Mendocino county offers a bounty of $15 for their scalps; hence they are hunted so persistently over there that large numbers have crossed the line into Lake, where their scalps are in less danger. The sheep men alone cannot cope with them, and want the Board of Supervisors to lend a hand.

Los Angeles.

THE BLESSED RAIN.—Santa Ana *Standard*, Feb. 12: It fell so gently that nearly all soaked into the ground. It insures a grand crop of grain, hay and fruit, and an abundance of pasturage, which was growing alarmingly scarce. The mountains east and northeast of town are covered with snow, which will afford plenty of water for irrigation during the dry season.

Pomona *Progress*, Feb. 10: The winter-sown wheat has plenty of moisture, and there will be a big crop of hay and grain. The orange trees needed water and Nature does the winter irrigating this time. Ceres and Pomona are both satisfied.

Anaheim *Gazette*, Feb. 12: The sheep and cattle men also are all in their glory over the rain, and the starving cattle, together with the sheep and lambs, will regain their lost vigor.

Mendocino.

A FRIGHTFUL FELINE.—Santa Rosa *Democrat*, Feb. 5: A mountain lion or panther is creating considerable havoc in the northwestern part of Mendocino. Several sheep and lambs have fallen victims to the animal's rapacity, and many parties have seen him. One young man vows it is as large as a cow, and emits sparks from its eyes like the electric light. Another hunter has a strange story to tell of the death of his favorite dog at the hands of the awful monster. A party of young men started out to hunt the beast last Saturday, but returned badly frightened. They saw the object of their search, but failed to kill it, and, after several shots, one and all took to their heels.

Merced.

GREAT WATER ENTERPRISE.—Merced *Star:* After four years of labor and expense, the Huffman-Crocker canal is almost ready to place both land and water on the market. At a cost of over $1,000,000 a canal of an average width of 50 feet on the bottom, and calculated to carry a stream of water six feet in depth (or even eight feet if necessary), has been constructed through a hilly country a distance of 21 miles to a point five and a half miles east of Merced, where is located a large reservoir of an average depth of 30 feet and covering an area of 800 acres. This is intended to provide a permanent water supply for Merced and vicinity.

THE RAIN.—Merced, Feb. 14: Rain has been falling steadily all day and no signs are visible of an abatement. Enough has fallen to place the county in good condition. Work on the canal and all outdoor labor has been suspended.

Napa.

POULTRY PROFITABLE.—*Calistogian:* In the fall of 1885, Mrs. Wm. Ebeling, who resides near Calistoga, owned nine mixed-brown Leghorns, which commenced laying about November 1st, and continued till the following March, just 500 eggs having been gathered. Five hens were then set, and 61 chicks were sold at not less than 50 cents each; the eggs were also sold at going prices, both together affording a fine profit for the year; and the original stock (nine hens) is still on hand. Mrs. Ebeling says: "I feed chicks middlings in the morning, and if cool, I make the food hot; give them cayenne pepper once a week and sulphur once a month; in the evening, feed them wheat. My chicks are never sick and are the healthiest I have ever seen." Her method of feeding the fowls accounts in a great measure for her success.

San Benito.

OLIVES.—*Free Lance*, Feb. 11: Mr. Robinson, who purchased a large tract of land in the Gabilan mountains, planted out several hundred olive trees last week. Mr. Palmtag has also set out a large number of olive cuttings this season.

THE RAIN.—In the valley the ground has been moistened to a depth of from six inches to one foot, and a slight addition to the rainfall will wet it down to the moist earth. In Hollister the rainfall for the season up to date (10th) is 3.24 inches. The major part of the grain is sown, and is beginning to sprout. But little of it has rotted. Those who have not sown have plowed their land, and are putting in their grain as fast as possible. Unless the spring rains utterly fail, the prospect for a good crop in San Benito county is large.

San Bernardino.

A GOOD SOAKING.—San Bernardino, Feb. 13: It commenced raining at 8 o'clock last night, and there has been a continuous storm since. The country is now thoroughly soaked, good crops are assured and the farmers are jubilant.

THE UPPER VALLEY.—Riverside *Echo*, Feb. 10: A gentleman from Lugonia says: "There has been considerable rain at our place the last two or three days, and everything is looking fine. The thermometer has got as low as 29 degrees on two occasions within the last three weeks, but oranges and lemons don't show any effect of frost, and even the young, tender lime shoots are not nipped. Calla lilies are blooming in the back yard. Some of the peach and apricot trees have put forth their blossoms and I noticed yesterday that apple and pear trees are commencing to show their young leaves. Peas are in blossom, onions and lettuce vigorously shoving ahead, asparagus ready to cut, ripe tomatoes yet on the uninjured vines, and strawberries almost ripe enough to eat."

San Luis Obispo.

THE WELCOME WETTING.—Cambria Cor. *Tribune:* Feed was getting scarce and cattle thin, and stock-owners were looking ahead and around planning anxiously for the future. But their anxieties are now over. We have had a good rain and it is still coming, and prospects are splendid now for fine crops and a successful year.

Estrella telegram, 9th: We have had all the rain we need at present for crops and plowing. There has been a large amount of wheat and barley sown, and most of it was up before the last rain, and the farmers are going to put in the most grain this year that was ever sown in this country, and there will be a large amount of trees and vines planted.

San Mateo.

FLAX PLANTING.—*Times and Gazette*, Feb. 12: W. M. Hatfield's flax project is not to lapse. Although only a small portion of the promised acreage near Menlo will be put in, P. J. Maloney's 25 acres being the only field now sure of planting, Wm. Stanton will put in 8 acres about 5 miles west of town; Hugh Kelly, of Searsville, 15 acres; Mr. Hatfield himself about 30 acres, and the two Kiefer Bros., of La Honda, some 65 acres. Mr. Hatfield has already ordered his machinery from Canada, and the works will be located either here or in Redwood City. Fine flax has been grown near Mayfield, and there seems no reason why good flax should not be grown here, to the profit of all concerned.

Santa Barbara.

THE RAIN.—Santa Maria *Times*, Feb. 12: Over three inches was precipitated upon the fields of newly-sown grain, and the confidence that a good season is at hand is confirmed. It came in the nick of time, as the vast area sown to cereals was beginning to show the effects of the drouth.

Shasta.

STOCK SUFFERING.—*Courier*, 12th: The heavy fall of snow has been severe on unsheltered stock of all kinds. We hear of considerable loss, and many more animals will succumb on account of weakness and lack of feed. The time has passed in this county when live-stock can be wintered on the deficient and eaten-out ranges. Animals must be sheltered and fed.

Solano.

EDITORS PRESS:—The weather is still threatening; 10¼ inches of rain fell during the last storm. Snow fell last night on the hills west of Vacaville, though not so low down as before. A few peach blossoms are showing. It is rather curious, but some of the latest peaches bloom before the early ones. Not much can be done now, but as soon as the ground settles, it will be a good time for those who have grubs, small trees, or grapevines, to take up. A gentleman here who had quite a number of vines to take up, fixed a cart out of the hind part of a wagon, and by passing over the axle-tree and fastening it to the vine, a good team can pull them up faster than six men can dig them. I send you a few blossoms of a seedling peach that does not ripen until August.—G., *Vacaville, Feb. 14th.* [Blossoms received. Thanks.—EDS. PRESS.]

THE HATCH ORCHARD.—Dixon *Tribune*, Jan. 15: Last Monday we had the pleasure of a brief visit to the largest orchard in California. It is the property of A. T. Hatch, of Suisun valley, and is a model of neatness and thrift. In 1876 Mr. Hatch owned a farm of 120 acres near Rockville, which he planted to trees. This was the beginning of his horticultural operations. In 1882 he added the Ellsworth farm of 217 acres, which is now wholly devoted to fruit trees. In 1885 he absorbed the Turner farm of 237 acres, of which 230 acres are now in trees. In the same year he purchased the Sweitser tract of 80 acres, which is now under preparation for planting, the trees being already on the ground. In 1886 he made the additional purchase of the Peabody farm of 127 acres, all of which is in trees, or will be by the close of January. These tracts are all contiguous, forming one of the finest bodies of land in the State; and the orchard, as well as being the largest in the State, is probably the best kept and in the highest state of cultivation. The trees range from one to five years of age. Last year about two-thirds were in bearing, but as it was the first year for many of them, the yield was not large. The gross receipts amounted to about $50,000. This amount will be largely increased from year to year, until all the young trees come into bearing. Mr. Hatch has something like 80,000 trees, which preponderate in the following named order: Pears, almonds, peaches, apricots, plums and prunes, cherries and nectarines. To take care of this immense orchard the labor of 60 men is required during the winter, and 200 men are employed during the picking season. Mr. Hatch is an enthusiast in horticultural matters, and his enterprise is never misdirected.

Sonoma.

PHENOMENAL FUNGI. — *Index-Tribune:* A curious vegetable production was brought to this office last Wednesday by Dr. Lawrence. It is a large mushroom, measuring 14 inches in circumference. On the top or crown of this is another mushroom, measuring six inches around. The stem of the latter is directly in the center of the larger, where it has taken root and grown, as though imbedded in rich soil. It was found on Terrace hill, the doctor's residence grounds, which produced the mushroom mentioned last winter, measuring 31½ inches in circumference, and weighing 1¼ pounds.

A CHEERFUL OUTLOOK.—Santa Rosa, Feb. 12: The rainfall for this storm is 7.77 inches, making a total for the season of 13.58. The grass is good and everything growing finely. A full crop of grain is in, and the fruit and grain prospects are good.

Stanislaus.

THE WELCOME SHOWERS.—*News*, Feb. 11: All the rain that has so far fallen has done the greatest amount of good possible, which is truly encouraging. As we write, the rain is still falling lightly, every drop entering the soil.

PORK AND MUTTON MOVING.—Modesto *Herald:* During the last week of January, Mr. M. B. Kittrelle shipped from Modesto to S. F. 700 head of hogs, aggregating in weight over 200,000 pounds. Mr. Kittrelle also ships a great many sheep to S. F., but says he can do better by driving them to Lathrop or Stockton and shipping them from either of those points. How is that?

Tulare.

OLIVE TREE FRUITING.—Wiley Watson presented the Visalia *Times*, last week, with several sprigs, all bearing fruit, cut from an olive tree grown in his yard in the southwestern portion of town. Mr. Watson is uncertain when the tree was planted, but knows it has been reset twice, has received no care, and yet has grown and thrived. The tree has borne for a number of years, and he believes that the olive will fruit here at the age of six years, and do well. The trunk of this tree, near the ground, is about one foot in diameter, and it is about 20 feet high.

Ventura.

GLAD OF IT.—*Free Press*, Feb. 11: The ground is becoming thoroughly soaked. So far the rain has fallen gently, giving the earth a chance to absorb it as it falls. Every one is jubilant.

NEVADA.

FROM THE RANGES.—Carlin Cor. *Stockman*, Feb. 7: During the last two weeks most of the stockmen in this vicinity have been gathering poor cattle, and although they have found many thin ones, they tell me that they found but few dead animals. As a general thing, the poor cattle are found on the bottoms. Those in the hills are still in good condition. Grayson & Hinckley, at Beowawe, are feeding about 1500 head, near Battle Mountain—about 1000 on hay brought from California; the Hunter Brothers, at Elko, about 1000 head; Lissak Brothers, near Carlin, 150 head; Palmer, Griffin, Carlyle and Milsap, about 100 head each, with sufficient to carry them through.

ARIZONA.

HORTICUTURAL SOCIETY ORGANIZED.—EDITORS PRESS:—We have organized a Horticultural Society, chosen officers and are at work. Our Territorial Fair or Industrial Exposition has been captured by horse-jockeys and gamblers so completely that agriculturalists and horticulturalists have withdrawn and perfected the new society, of which I will shortly send you some items for publication.—G. W. L., *Phœnix, Arizona.* [We see by the *Herald* that it was resolved to call the society the Maricopa County Horticultural Society, and that its meetings be on the first and third Wednesday of each month.—EDS. PRESS.]



Washington's Birthday.

Send a thund'rous sound, O cannon! from your throat and iron lips,
To the life that led chained Freedom from the shadow of eclipse.

Mock with brazen-throated laughter, on this glorious natal morn,
Sounds of woe and battle-travail, 'midst which Freedom's state was born!

Bloom with red and white, O banners! on the cold and wintry air;
Shine, O stars, in fields of azure! on the deeds which placed thee there.

Bask, O freeman! full enfranchised, in the light of Freedom's sun;
Thank again the god of battles for the gift of Washington.

Shout aloud till they can hear ye—cowering 'neath a despot's rod—
That through him whose birth ye honor ye are men before your God.

Ah! thou Father of our Country, not dost thou our homage need—
We who reap the glorious harvest from thy sowing of the seed.

For thy fame shall grow in luster as is added age to age,
Through the splendor of the scutcheon, which thou left as heritage.

Never hand of thine hadst carved thee out a path to fame more clear,
Hadst thou grasped again the sword hilt cast away by Belvidere.

For for Freedom thou unsheathed it, and its strokes more potent were
Than that miracle of splendor, Arthur's brand, Excalibur.

When thy patriot hand withdrew it from the hiding scabbard's shade,
Shone the gliat of Freedom's sunburst on the glory of its blade.

Never sought thou blood of fellow, that Ambition's ghouls might gorge;
Not the sword of Freedom tempered was for this at Valley Forge.

Bright it flashed at storied Trenton, smoke-eclipsed at Brandywine,
Gleaming with a fiery splendor Yorktown saw its meteor shine.

Not till Phrygian-capped was Freedom's brows with olive crowns unwreathed,
Was the blade drawn for thy fellows back returned unto its sheath.

Never thou braved wintry waters for the honors thou mightst don,
As the mighty Roman Cæsar passed of old the Rubicon.

We shall see the breath of cannon, when from out grim mouths 'tis rolled,
To thy whitened locks transmuted, which thy forehead aureoled.

And when on the nation's birthday, it the flag thou gav'st enshrouds,
We shall see thy face of grandeur looking down from out its clouds.

Thou wert grander than the Roman when he thrice refused a crown,
Where by banks of singing Severn there thou laidst thine honors down.

Lapse with requiems, O Potomac! on Mount Vernon's storied shore,
Where are urned his sacred ashes, Freedom's Mecca evermore.

Though through camp the fields of heaven may by others still be won,
He amidst all constellations still shall shine as central sun.

He whom Freedom named as Father still is Father of the State,
Though the Nation claims of heroes now a great triumvirate.

Never shall his name rank lower on Fame's mighty muster rolls,
Who so goes to claim Valhalla's apotheosis of souls.

—*Ben D. House.*

Mount Vernon.

A Sketch for Washington's Birthday.

[Written for the RURAL PRESS by ANNA PLATT.]

Accotink, Fairfax county, Va., is our summer retreat from Washington City. It is not so remote as it sounds, for the Indian name is given to a little settlement 18 miles from the metropolis, four miles back from the Potomac river and Mount Vernon. Our host is a New Hampshire man who settled here 35 years ago, so he cannot be called a "carpet-bagger." His fruit farm of 140 acres yields strawberries and peaches, the berries requiring a hundred pickers a day to supply the market demand.

We are on a high ridge of ground 400 feet above the Potomac, which, with the opposite Maryland shore, is visible in the distance; while the malaria that glides unseen never reaches these airy hights. The points of interest seen from our piazza are Mount Vernon, Woodlawn and Pohick church.

The home of Washington, so well known here, may be a "terra incognita" to some of your readers on the Pacific Coast. The four-mile ride over hill and valley was a rough one, as all Virginia roads are; for the oldest State in the Union seems quite destitute of all improvements that civilization usually brings.

The grounds of Mount Vernon are entered by a gate a quarter of a mile from the house, and the winding road through the park leads us to the back garden gate and through the avenue bordered by box plants a century old. We emerge into a grove of grand old trees that seem like sentinels to guard the hallowed ground. Our first view was of the back of the house, which presents an unusually attractive appearance. The long, low, wide building is connected by a gallery or arcade of seven arches on each side to the buildings or offices in the rear. First is the old kitchen with brick floor and the great open fireplace, and iron crane that swung there a century ago. The laundry and butler's pantry adjoining, on the opposite side, are Washington's office and the gardener's house, all forming a perfect semi-circle; and through the arches of the arcade we see the blue waters of the Potomac. We walk through the broad hall in the center of the house to the portico in front, paved with stone tiles, the roof supported by lofty pillars of brick, covered with stucco.

The visitor is here taken by surprise, for the view is enchanting. From the commanding hight he looks down to the broad Potomac, over a green carpet of turf, whose every curve is a line of beauty, instead of the dead monotony that characterizes the banks of most Southern rivers.

This picturesque spot was selected by Lawrence Washington in 1727, and named in honor of Admiral Vernon, of the British Navy, on whose ship he was midshipman. His brother George purchased the place after his marriage to the widow Custis, and we seem to read the record of their happy home life in the beautiful old mansion, preserved in all its antique simplicity and elegance, by the Mount Vernon Association.

The superintendent, Col. Holingsworth, who for 15 years has been its guardian and genial host, has resigned his office, much to the regret and loss of visitors. The courtesy and chivalric hospitality of olden time seem to have vanished with them. For the frugal lunch of bread and milk, tea, coffee and fruit, dispensed in the old kitchen, and under the arches of the arcade, has been banished in the new regime, and there is an empty void that sight-seeing does not fill.

The state dining-room was built as an addition to the house, with lofty ceiling and a mantelpiece of carved Carrara marble sent as a present to Washington from Italy. The ship bearing the treasure was taken by pirates, but the mantelpiece was sent to Mount Vernon, for even these robbers of the sea venerated George Washington. Each room in the house has a quaint beauty and grace of its own, from the cozy breakfast-room and Nelly Custis' music-room with the old harpsichord to Lafayette's bedroom and the bright airy chamber where the Father of his Country died; and a pathetic interest attaches itself to Martha Washington's room in the attic, where, from the gable window, she could see her husband's tomb. The rag carpet is replaced by a Persian fabric that resembles the original. The slender-legged table and quaint mirror are her own, and there is a hole in the door for the entrance of a favorite cat.

As the steamboat passed the mansion the bell tolled as usual, and about 75 or 100 passengers came up the winding walk from the wharf, all stopping at Washington's tomb—a vault with an iron gate, where the marble sarcophagus of George Washington guards his sacred ashes. About 30 of the Washington family are buried in the vault beyond this one, and, when filled, the key of the iron door was thrown into the Potomac.

The crowd of passengers from the boat stood with uncovered heads while the guide gave these details. There is no gloom, but a calm repose rests upon the grave of George and Martha Washington, as the sunshine and shadows of drooping trees rest upon the marble sarcophagus.

"This surely is hallowed ground," as Jacob said when angels ascended and descended the ladder; and if departed spirits do visit this earth, surely the home of Washington is not deserted, even when the daily crowd of pilgrims have departed.

Our drive home in the afternoon was varied by a call at Woodlawn, two miles from Mount Vernon. It was the home of Elenor Custis Lewis, the stepdaughter of Washington, who married Major Lewis, the son of Betty Washington and a nephew of Gen. Washington. The mansion was built in 1803, of brick, with many gables and a stone portico with lofty columns. It is on a grand scale, with broad hall and lofty ceilings, and carved marble mantelpieces—a present from Washington.

The estate, with 500 acres, is now owned by Mr. John Mason, formerly of New Hampshire. The lawn, with the grand old trees, is a fitting setting for the baronial mansion, but all has gone to decay. The steps seem crumbling, the pillars are broken and paint has scaled from the walls. An ancient piano in the parlor reminded us of "the harp that once through Tara's halls, its soul of music shed." But now its halls are deserted and glory departed. This is historic ground.

On Sunday we attended the Pohick church, 3 miles from Mount Vernon and the same distance from us. It is built of stone and is about 150 years old, has survived the Revolutionary war, the war of 1812, and the war of the Rebellion. It passed unscathed through the two first, but the iconoclasts of the Union army left nothing but the walls and two rows of empty windows. The cornice of the ceiling also remains. All else, the pulpit and chancel, the ten commandments and Washington's pew, with high, square sides, all are gone, carried off as relics by vandals of the 19th century.



THE HOME OF WASHINGTON.

The church has been restored and the pulpit placed on one side where Washington's pew once stood. We listened to the same prayers and the litany that he responded to, and we believed in the "Communion of Saints" which unites us here on earth with those who have gone before.

We copied the following inscription from one of the gravestones near the church:

To the memory of Mrs. Susanna Mills, wife of Mr. John Mills, merchant, who departed this life June 12, 1774. Aged 39 years.

"Whate'er she was, forbear to say,
'Twill best be known on that great day
When you, and all, and every one,
Must give account for what they've done.
To say no more, she lived approved,
And died lamented and beloved."

Advice to Parents.

[Written for the RURAL PRESS by MRS. J. HILTON.]

That is good advice that "Elsie Ange" gives the girls in last week's RURAL, and I want to give mothers some of the same kind of advice. Don't, for mercy sake, allow a daughter to treat you as Ida Mathews is said to have treated her mother. If she does so far forget herself, give her fully to understand in private that you will not allow it, and then if she does it again, order her out of the room, no matter who is present.

Have you no pride for self, nor desire for your daughter's good? People who see such things allowed in a girl feel pity and contempt for the mother, and they cannot have true friendship or love for the daughter. You may say, "My girl has got so large I am ashamed to make any fuss." You ought to be ashamed to allow her to disgrace herself, for it is a disgrace when a child does not honor a parent; and sometimes, when no word is spoken, a child gets into wrong ways through sheer lack of thought, especially if of a naturally overbearing disposition.

I have a word also for fathers. Don't you know that you can make those children treat their mother rightly by saying to them very plainly, when she is trying to make them mind, "Children, mind your mother," and not laugh or look sneeringly on and say to the mother before the children, "I should think you would make them mind." Help her to make them mind her, and she will have more love for you and so will the children have more love and honor for the parents who help one another to guide them in right paths.

Los Alamos.

The Mother of Washington.

The Woman Who Gave a Great Son to the World.

Mary Washington lived in an age when the mothers of great men and women were not such objects of interest to the world as they are now. But little was thought in the then new country of the mother's share in producing and developing an immortal figure.

Enough is known to support the supposition that from her he inherited his strongest mental qualities and splendid physique. After he became the military hero of his country everything pertaining to his paternal ancestry was gathered and treasured with zealous care, but no one thought of the maternal genealogy.

Mary Ball was the daughter of a well-to-do Virginia planter. She was born in 1706, was carefully brought up and religiously trained. On March 6, 1730, at the age of 24, she became the second wife of Augustine Washington, a friend and neighbor of her father. The wedding was celebrated with the old-time generous hospitality of Virginia.

The Washingtons were planters of considerable means in Westmoreland county. Mary Washington found herself the step-mother of several children and the mistress of one of the most comfortable homes that section of the country afforded. It was a one-storied frame house with a steep roof, four large rooms, and an entrance hall of old-fashioned width. At each end of the house on the outside was an enormous chimney. It was situated on an eminence about half a mile from the Potomac river, commanding a view of the Maryland shore for miles.

Here, on Feb. 22, 1732, George, the first child of Mary and Augustine Washington, was born. Six children were eventually born to them. They were named, respectively, George, Betty (afterward Mrs. Lewis), Samuel, John Augustine, Charles and Mildred. The last-named died in infancy. The three sons inherited separate plantations in Virginia from their father, and there lived and died.

When George was six years old the Washingtons removed to a large plantation or farm on the Rappahannock river, opposite Fredericksburg.

The Washingtons owned many slaves, and the spinning-wheel and loom and sewing-room required constant care from Mrs. Washington. It was a religious household. Both Mr. and Mrs. Washington were members of the Episcopal church, and family prayers, at which all the servants were present, were the rule of the house.

The mother was a serious, earnest person, whose reproofs to her children were often made in scriptural language. "Honor thy father and mother," was a command so thoroughly instilled into their young minds that they were as obedient and reverent in their later as in their earlier years. Mrs. Washington was left a widow when George was but 11 years old. She was the guardian of her step-children as well as her own, intrusted with the revenues of their property until they severally came of age, a trust she conscientiously fulfilled.

She ruled kindly but firmly, exacting deference as well as obedience, and this, it is said, her children willingly paid to the day of her death. She was dignified to the point of being severely stately. From her, doubtless, Gen. Washington inherited the awe-inspiring manner he was said to possess. There is an old story describing the discomfiture of a man, an official of high standing, too, who once familiarly put his hand on Washington's shoulder. He said he wouldn't do it again to save his own life.

That mother and son were much alike in character, appearance and conduct, there can be no doubt. Both were lacking in humor and imagination; both were silent, reserved, self-contained and serious.

George frequently spent his holidays at Mount Vernon with his brother Lawrence, who was largely responsible for putting him in the way of a military career, and who bequeathed to him Mount Vernon. When he was but 14 years old a midshipman's position on a British man-of-war could have been secured for him, but his mother refused her consent. This little incident doubtless saved him from obscurity. Later she cheerfully assented to his departure to the French and Indian war, and from that time on he only saw her on occasional visits.

Before starting north to assume command, Washington visited his mother, and during his absence wrote her repeatedly. When she heard him extravagantly praised she answered that Providence ordered all things, or said simply that he had been a good son and she believed he had done his duty as a man should. She did not see him for six years. After the surrender of Cornwallis at Yorktown, Washington visited her, attended by his staff. The people of Fredericksburg gave a ball in his honor, which was attended by the most distinguished officers and citizens. That was the only occasion when Mrs.

Washington appeared in public with her son. She was then over 70, and received more courtly attention than any other figure present, her illustrious son not excepted. She is described as "the picture of beautiful simplicity moving among the dazzling throng dressed in the appropriate costume of a Virginia matron of the olden time."

The Marquis de Lafayette visited Fredericksburg especially to bid Mrs. Washington goodby. He found her in a homespun dress and sunbonnet, working in her garden.

"Ah, Marquis," she said, "you see an old woman; but come, I can make you welcome to my poor dwelling without the parade of changing my dress."

When Washington was elected President he paid her a farewell visit. This was the year of her death. Both felt that the parting was the last in this world. She was then fast journeying to the life beyond, having for years been afflicted by a cancer, keeping her ailment a secret as long as it was possible to do so. She died on Aug. 25, 1789, in her 83d year. Her grave was unmarked, even by a headstone, till the year 1833, when President Jackson laid the corner-stone of a monument to her memory. A colossal bust of Washington was to adorn the shaft, and that surmounted by the American eagle sustaining a civic crown above the hero's head. This was to be its inscription: "Mary, the mother of Washington." But, alas, the pedestal is moss-covered and unfinished, and the marble from which the shaft was to have been made lies beside it crumbling to decay.

Recently the citizens of Fredericksburg have petitioned Mr. Croxton, their representative in Congress, to endeavor to secure an appropriation to finish this monument. It is scarcely possible that Congress will turn a deaf ear to this appeal.

West Side Notes.

[Written for the RURAL PRESS by MRS. J. M. K.]

It has been a beautiful winter, considering climatic comfort only—very little cold weather until lately, and almost unlimited sunshine. Still the midwinter scene in Napa county, with all its glory of birds and bees and blooming flowers, described by a correspondent in a late RURAL, seems almost as strange to us, dwelling in this dry region, as it would to Eastern readers. I should hesitate amid such loveliness to suspect any California picture of being overdrawn.

What a wonderful State we live in, and how difficult to convey correct impressions abroad, as not only each locality differs from each other, but varies with the seasons. Here in San Joaquin we often have green fields and bright flowers at this date. We often remark that fortunes could be made on the West Side if we only could correctly know the nature of the coming season. But the Signal Service does not give long enough time to benefit us wheat farmers. Now let them stand aside with their little 36-hour predictions; here comes Prof. Blake, of Richland, Kansas, able to calculate by astronomical mathematics the weather changes a whole year ahead.

In the December number of his paper, *The Future*, he says: "We do not make any hypothetical predictions. We squarely stake our reputation every time, as fearlessly as an astronomer, in making the prediction of an eclipse, and we never fail in giving the general changes of the weather."

Mr. Blake, however, very generously does not propose to monopolize the benefits of his wonderful discoveries. In the issue of September, 1886, he writes: "In this issue we publish the result of our calculations for the next seven months, and therefore think the signal officers and other prophets will be able to make pretty correct predictions for the coming winter, and thus be relieved of the charge of being a fraud."

As I have only been reading *The Future* a few months, I cannot deny or verify the statement that the calculations for the Pacific Coast proved to be almost exactly correct. That your readers may judge for themselves, I give here the predictions spoken of above, for seven months from October, 1886, to April, 1887:

In Northern California, toward the last of October and by the end of the month, the rains will extend nearly to the south end of the State; but they will not be heavy till November, when heavy rains will extend over parts of the State in streaks. Probably a heavy streak of rain will pass near Sacramento during November, with still heavier rains on the northwest coast of the State and thence north to the British line. In December the rains will not be very heavy except in the North Pacific Coast region; but in January and February heavy rains will extend further south, reaching the southern line of California. In March, 1887, the rains will be much heavier than usual all along the coast. Take the whole season together, and it will be a splendid one for the Pacific Coast. The amount of rainfall during the entire season will be considerably in excess of the average. This will insure a good crop again next year.

In the February number, just come to hand, the statement is made that during the months of February, March and April there will be nine inches of rainfall in the Sacramento valley. This prediction is based upon calculations of rainfall extending back to 1849.

The brief extracts I have given convey but a faint idea of the scientific claims of *The Future* with its lengthy articles on cosmogony, earthquakes, volcanoes, etc. As Prof. Blake is very ready to teach the principles of his science, suppose a bright young man be sent from each locality to study it. We want to know exactly where the streaks will come. We were left out this time. Who got the streaks? And who will tell us how much of all this is mere conjecture to extort money from the credulous; or has Prof. Blake really his hand upon the long hidden secrets of nature?

I heard of something new in the way of agents the other day—a gentleman who could not hear, but could talk, the other party being obliged to write his part of the dialogue. At first thought it seemed an improvement, but a moment's reflection convinced me the case should be reversed. Yes, the agent (especially sewing machine agents) should be dumb and deaf, and one is tempted to covet a temporary deafness for himself.

Tracy, Feb. 7.

YOUNG FOLKS' COLUMN.

Her New Home.

DEAR EDITORS OF THE PRESS:—We have lately moved from Woodland to the Cholame hills in San Luis Obispo county. Our house is on a hill which overlooks the valley for miles, and gives us a beautiful view of the Coast Range. There are a number of little cabins springing up in the canyons. The trees grow more abundantly in the canyons than on the hills, and quails seek their hiding-places there. The bunch grass grows to the hight of four or five feet, and the cattle feed upon it all the year around. There is a kind of grass growing here which is called water or honey grass, and the old settlers say that wherever this is found there is water near the surface.

I will relate an adventure that happened to my aunt and myself. One bright December afternoon we started out for a walk. It was a beautiful sunny day and all the world looked magnificent, and the meadow larks were singing gayly. Prince, the dog, ran playfully up and down the hills beside us. He is about four months old; he is part greyhound and part bloodhound. His ears lap forward and he moves them back and forth as if they were two little banners, and he is the cutest little dog that ever breathed. There are large bands of cattle roaming about the hills, and one has to be very careful, because they come so unexpectedly upon a person. We started out to find a spring; it was in a deep gulch near an oak which was draped beautifully with mistletoe and Spanish moss. It was in one of the canyons. As we were wandering down the gulch we saw a small stream of water, and aunt said, "Why, there is the spring." As we were going up the hill it was so steep that Prince lost his foothold and rolled over and over down into the gulch.

When we arrived upon the brow of the hill we stopped to rest and admire the scenery around us. Auntie plucked some delicate yellow flowers to press and send East. As I turned to look behind us I saw a band of cattle running toward us, and I said: "Auntie, auntie! the cattle are coming. What shall I do—shall I set the dog on them?" And she answered, "No, we must run," and then we rushed down the hill, and when we reached the gulch aunt was so tired that she sank down upon the ground, and she said to me, "Jump across the gulch." I answered, "We can't; it will cave in," and she said "You must," in a firm voice. She afterward said that it took a good deal of exertion to speak in such a determined voice, and that she did not know but that my life depended upon it. And I thought that when she spoke that way I could, and I made a great effort and sprang over. We soon got in among the trees and out of sight of the cattle, and when we were safe we congratulated each other upon our escape.

My papa takes your paper and I am always interested in the children's column.

Cholame Hills. LILLIAN HOLLY.

From Lake County.

DEAR EDITOR:—I again write a few lines to your columns to tell your readers of my dear father's death; he died about three months ago. You can imagine how sad I am.

There is a great deal of sickness around here. Christmas was very dull.

There is some talk of there being a postoffice near by.

Our spring term of school will begin the first of March. There will be about 20 scholars. Mrs. Sherwood will teach. I think she is a good teacher and the best they could get.

Lake Co. MINNIE FERGUSON.

[Our young friend has our most sincere sympathy in her affliction.—EDS. PRESS.]

Don't Find Fault.

[Written for the RURAL PRESS by MRS. J. HILTON.]

DEAR YOUNG FOLKS:—I want to caution you about being intimate with any one who makes you feel a distrust of others. Unfortunately, there are people so constituted that they rarely see anything good in any one; and when they speak of others, they either say bad things of them, or else sneer or laugh at what they do. Of course, while they are talking to you they will speak as though *you* were not of that kind; but you may be assured that they will speak in the same way of you to others as they speak of others to you. There seems to be a fascination about such people which is hard to overcome after we once allow ourselves to get to listening to them—the same sort of fascination that is shown by those who always turn to the murder and horrible columns of the low papers that pander to such tastes. Nine out of ten of the people who are always finding fault with what others do, are utterly incapable of doing the very things which they are so ready to say have been done so poorly. If you allow yourself to become familiar with such people you will unconsciously get into the same way of thinking, and fault-finding is death to true happiness. Cultivate charity toward every one, and instead of finding fault, take hold and try to do it yourself and see how well you will succeed.

Los Alamos, Cal.

A PLUCKY GIRL.—One Sunday morning, this winter, Mrs. Charles Krumlin, of Lobetus, San Mateo county, opened a door leading into the yard and saw a large, hungry-looking coyote gazing longingly at her. It took the lady about 'steen seconds to shut the door and not much longer to tell her daughter, Miss Lizzie. The young lady, only just in her teens, grasped the situation and stole quietly into the yard. The coyote was still hungrily regarding the door. Miss Lizzie grasped a big hoe in her little hands and "went for that heathen" coyote. At the first blow the varmint keeled over, howling awfully, but it took about a dozen more blows to end its earthly career. The friend who wrote to the *Times and Gazette* about her exploit adds: "We, of Lobetus, are proud of Miss Lizzie, and trust she may grow up to become a school-teacher and be able to subdue the 'young idea' as effectively, if not so severely, as she did that coyote."

GOOD HEALTH.

Healthful Breathing.

Tight lacing and lazy ways of breathing, says Helen C. Swazy, in *St. Nicholas*, prevent the lungs of the adult woman from getting enough exercise for their own good.

It is well to establish the habit of deep breathing, but, in addition to this, the reserve air which is left in the lungs after an ordinary expiration should be expelled, and the lungs thoroughly ventilated at least twice every day. First, then, see to it that the air in the room is as pure and fresh as out-of-door air can make it. Then, with all tight and superfluous clothing removed, lie flat on the back, and, with the mouth firmly closed, take a full deep breath. Hold it 8 or 10 seconds, and then let it out. Take another, and yet another breath, in the same way.

After that, take a breath into the lungs as slowly as possible, beginning to fill them up at the lowest extremities, and inhaling gradually until they are filled to their full capacity, when the air should be exhaled in the same slow and steady manner in which it was taken in.

When you have taken this movement again, to make sure that the shoulders are in good position, throw your arms vertically over your head and take another quick, full inspiration, swinging the arms rapidly to the sides close to the body and back again over the head. Swing the arms up and down four times on the same breath, and repeat the exercise three or four times.

After this it is a good plan to stand erect, with the arms horizontal at the sides, and vigorously clasp the hands from that position over the head a few times. When taking such movements in an erect position, always keep the chin two or three inches back of the vertical.

A few such exercises as these, for 5 or 10 minutes at night and morning, will promote refreshing sleep and give increased vitality.

CURE FOR DIPHTHERIA.—Dr. A. Brondel writes, in the *Bulletin General de Therapeutique* of Nov. 15, 1886, concerning the treatment of diphtheria by benzoate of sodium, and asserts that of 200 consecutive cases he has not lost a single one. He admits the possibility of a mistaken diagnosis in some instances, but, even excluding 50 per cent on this account, he still has 100 cases without a death. His method is as follows: Every hour the patient takes a tablespoonful of a solution of benzoate of sodium, 15 grains to the ounce, and at the same time one-sixth of a grain of sulphide of calcium in syrup or granule. In addition to this the throat is thoroughly sprayed every half hour with a ten per cent solution of benzoate of sodium. This is done religiously at the regular intervals, day and night, but no other local treatment is employed. No attempt is made to dislodge the false membrane, and no penciling nor painting of the fauces is resorted to. Tonics are given and antipyretics are used when occasion calls for them. The nourishment consists of beef juice, tender rare meat, milk, etc.; but bread and all other articles which may cause irritation of the throat are forbidden. The sickroom is kept filled with steam from a vessel containing carbolic acid, turpentine, and oil of eucalyptus in water.

The employment of benzoate of sodium is not a new method in the treatment of diphtheria, for it has been tried and is recommended highly by Letzerich, Kien, Ferreol, and others. But this, of course, speaks so much the more strongly in favor of the remedy; and as Dr. Brondel's results were better than those obtained by others using the same drug, it is to be presumed that his method of employing it is the best.—*Medical Record.*

DOMESTIC ECONOMY.

Tested Recipes.

[Written for the RURAL PRESS by ADA E. TAYLOR.]

Ham for Breakfast.—Fried ham is particularly nice when the slices are cut the night before and are allowed to soak all night in a cup of water, in which a tablespoonful of sugar has been added. This softens the meat and takes out the salt taste.

Chocolate Cake.—One cup sugar, one heaping tablespoonful butter, two cups flour, one cup milk, three teaspoonfuls yeast-powder; cream, butter and sugar, beat the yolks of four eggs with milk, mix all together, add flour with yeast-powder sifted well through it. Bake in a large tin, so as the cake will be about an inch in thickness when done.

Lemonade Syrup.—With one pound of lump sugar rasp the yellow rind off six lemons. Moisten the sugar with as much water as it will absorb, and boil it to a clear syrup. Add the juice of 12 lemons, stirring it well in beside the fire, but do not let it boil any more. Bottle the syrup at once, and cork it when cool. Mix a little of this with cold water when lemonade is wanted.

Frosting.—One-half cup cream, two cups sugar, set on stove and stir till it boils, then let it boil for five minutes without stirring, remove from the stove to a cool place and stir till it begins to thicken, then add one cup of grated chocolate, and one tablespoonful of vanilla, spread over the cake, about half an inch thick. The same frosting is also very nice between layer cake.

Orange Float.—Take one quart of water, the juice and pulp of two lemons, one coffee-cup sugar. When boiling hot, add four tablespoonfuls of cornstarch dissolved in a little cold water. Let it boil five or ten minutes, stirring all the time. When cold, pour it over four or five oranges that have been sliced into a glass dish, and over the top spread the beaten whites of three eggs, sweetened and flavored with vanilla.

Sunset Pudding.—Dissolve four tablespoonfuls of cornstarch in a little cold water; pour boiling water over this, stirring constantly, until it thickens; add one cup sugar and a little vanilla, mix well; have ready the whites of four eggs beaten stiff, stir them quickly into the hot cornstarch, cover tightly, and set in a kettle of boiling water. Let it cook for 20 minutes. For the sauce, put two pints of milk in a tin and set in boiling water. When hot, add one-half cup sugar, beat the yolks of four eggs and one teaspoonful of cornstarch in a little milk; pour gently into the hot milk, stirring constantly. Let cook 10 or 15 minutes, then flavor with vanilla. It makes a very beautiful as well as a delicious dessert for dinner. Can be eaten either hot or cold.

German Dumplings.—Mix a half pint of lukewarm milk or cream with a small cup of fresh yeast; add two ounces of sugar, two well-beaten eggs, six ounces of partly melted butter, and two pounds of sifted flour. Beat the whole thoroughly until light and spongy; cover with a cloth and let raise with a gentle warmth. Turn out the dough on a well-floured board; cut off egg-sized pieces, and lightly roll them into round balls or ovals. Leave these on the board to raise again. Put two ounces of butter in a broad, flat stew-pan, with a dessertspoonful of sugar, and milk half an inch deep. Let this boil; take up the cakes gently and lay them close together in the boiling milk. Cover with a lid and put them in the oven till the milk is nearly dried away, and the dumplings have a yellow crust. Take them carefully apart, sift sugar over, and serve with any sweet sauce or fruit. Nice with beaten cream, sugar and lemon.

Hints.

A little borax put in the water in which scarlet napkins and red-bordered towels are to be washed will prevent them from fading.

In icing cakes, dip your knife frequently into cold water.

Mush to fry will brown better if the meal is mixed with milk, and then poured into boiling water.

Tuolumne Co., Cal.

Preserving Eggs.

EDITORS PRESS:—I see through columns of the RURAL some valuable recipes. I send you one for preserving eggs, as they do it in Germany. It is said they will keep a year as good as fresh eggs.

Take a keg (be sure and have it water-tight) pack it full of eggs; then take unslacked lime, slake it by pouring water on in a tub or barrel and let it settle; then pour the lime water over the eggs and they will keep good.

Will some of the readers of the RURAL be kind enough to tell how to burn a charcoal pit? It will be very valuable to a poor man.

Alturas, Modoc Co. A. S. H.

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The Week.

One storm has trodden upon the heels of another so closely that we have practically had two full weeks of rain. Each new storm seems to drop its burden more easily, and the downfall which began with snow and bluster has continued with gentle rain and higher temperature, except in the mountains, where unwonted snowstorms have raged and have blocked trains on the upper overland route. The rapid rise of the valley streams has swept away bridges and broken levees in some places, and thus has wrought injury to lands and brought new burdens upon the county treasuries; but these losses are outbalanced many times by the outlook for harvest plenty which will banish thought of winter hardships. Since our last issue the rains have continued at the south as well as at the north, and the snowcapped Southern mountains will have constant contributions for the irrigation ditches of the lower country. The whole outlook has become delightful to contemplate. Our Agricultural Notes this week contain many indications of the satisfaction which is now swelling the producer's heart and promises ere long to result in the same enlargement in his pocket-book.

Engineering, Irrigation, Debris.

The present century will be noted in the annals of engineering. The world over, there seems to be a craze for cutting isthmuses, boring tunnels, springing gigantic bridges and other kindred projects. The Alps have been pierced by tunnels under the St. Gothard, the Simplon, Mont Blanc and other places, and what is called the Channel tunnel between England and France, has been pronounced feasible. The restless genius that planned and executed the brilliant success of the Suez Canal, is now engaged in the mighty scheme of spading out another canal across the Isthmus of Panama. In our own land we have our hands full of marvels accomplished or in embryo. New York and Brooklyn have been united in wedlock by a suspension bridge, at a cost of $13,000,000, and the energetic people of Chicago are contemplating the construction of an artificial harbor at an expenditure of $12,000,000. Captain Eads, not satisfied with the glory of chaining Illinois and Missouri together at St. Louis, and scouring out a channel at the mouth of the Mississippi by means of jetties deep enough to float the largest ships, is now trying to induce Congress to help him build a ship-railway across the Isthmus of Tehuantepec. Many of the greatest engineers in the world have pronounced the scheme practicable, and after long, patient and persistent effort, Congress now seems inclined to grant the necessary aid.

In the light of these and many other mighty enterprises that might be enumerated, why should any one doubt the possibility of solving the irrigation and debris problems in this State in a way that may preserve all personal equities and advance the public welfare? Take the irrigation problem. The desirability of a comprehensive system for the distribution of the waters of the State for this purpose is now too generally recognized to admit of debate. It would be foolish to look with distrust upon such a scheme, in the face of such vast areas of land, as in Egypt, Italy, Spain, France and India, which have been reclaimed and enriched, where otherwise barrenness and desolation would reign. The topography of some of these countries made the construction of canals and the storage of water very difficult, laborious and expensive. In planning the topography of California, nature seems to have had an eye to business. From the mountain ranges along the entire eastern boundary of the State to the Pacific ocean on the west, the surface slope is so gradual that the waters of the rivers which traverse this territory can be carried in canals over the greater part of this fertile region. The supply is abundant, and if distributed under a just and liberal riparian system would insure crops on millions of acres where crops are now uncertain or impossible. The Tuolumne, Calaveras, Stanislaus, Mokelumne, Merced, Fresno, San Joaquin, King's, Kaweah and Kern rivers embrace a territory as large as the States of Connecticut, Rhode Island, Vermont and New Hampshire. This cannot be done under the existing riparian law, to wit, that one owning land upon a stream has a right to its uninterrupted and undiminished flow over or past his land. The mere repeal of Section 1422 of the Civil Code, where our Supreme Court thinks this principle of the old common law is entrenched, would not cure matters. The rights of the present riparian proprietors have become vested; and then, to throw open the waters to the seizure of the first comers would be only jumping out of the pan into the fire. It would inflict an unseemly scramble among speculators. What is needed is a comprehensive scheme of irrigation for the State, armed with the power of eminent domain, and yet so carefully guarded that every proprietor shall receive a just compensation for his loss of control over the water, and the method of distribution be protected from extortionate rates and improper discrimination. The bill introduced by Mr. Brierly, providing for the appointment of a commission to obtain the necessary data, seems a step in the right direction. The State Engineering Department has already accomplished much, and the general maps of the State and special maps and profiles that have been constructed showing minutely the gradients of large scopes of country, and the geographical, topographical, and hydrographical data accumulated, will be found of inestimable value. The conviction is wide-spread and increasing that the time has come to make the initiative movement. Whether our present Legislature is competent to handle the question remains to be seen; the indications, certainly, are not very assuring.

Then there is the debris problem. That a large and fertile region covered with gardens, orchards, vineyards and grain fields, towns and cities, has been greatly damaged or imperiled; that the navigation of the Sacramento has been seriously obstructed, and the harbor of San Francisco menaced by shoaling, from the inflow of debris, will hardly be denied. The natural action of the water would in time, aided by jetties, levees and the like, scour out the channel, but not so long as the detrital matter continues to pour in. It is obvious that something more comprehensive and vigorous should be done than has yet been attempted. The hostility existing between the miners and farmers is unpropitious for any broad and amicable adjustment of this question. The temper of the present Legislature indicates that nothing satisfactory to either side will be done. We should not overlook the fact that this problem is partly a national one, as the security of navigable waters is involved. That Congress can solve this problem, hardly admits of a doubt. Greater engineering schemes have been accomplished.

These two questions, irrigation and the prevention of injuries by mining debris, are now the most important in our public affairs, and to them the Legislature should have first directed its attention and applied its best energies. It is evident to any one who has watched the course of legislation that they have either not been properly appreciated or have been intentionally avoided. If a different course had been taken, if we could clearly see that these questions were solved or advanced in any appreciable degree toward settlement, it would not seriously matter if nothing else had been undertaken. These issues are pressing for solution; the growth of vast areas of the State depends upon their prompt and fair adjustment. Several Legislatures have approached the subjects, and popular discussion has shed much light upon them. The time was ripe for action, but the opportunity has been thrown away by this Legislature, and its inefficiency in this regard will not be forgotten.

It does not seem likely that a legislative body with a majority fit to grasp such problems can be secured until men are chosen more for their practical understanding of the important issues involved than for their party services or loyalty, nor does it appear that legislators will take proper action until they are actuated more by devotion to the true industrial growth and prosperity of the country, than by fealty to political leaders. It rests with the people to correct existing evils, and the remedy lies in manly, conscientious, independent action in nomination and election of representatives. It is evident that public services are now measured by far too low a standard, and that rewards for public service are found in the smiles of the bosses instead of in the consciousness of well-doing in the interest of the State.

AUSTRALIAN RABBITS COMING.—It is said that a ship from Melbourne, bound for this port, has on board 20 Australian rabbits, which it is proposed to turn loose in the Sacramento valley. As this is the prolific animal that has proved so destructive a nuisance in Victoria and South Australia, the above report has aroused no little alarm and indignation. There is no statute to forbid the landing of such immigrants, but if they get ashore and are set at liberty the farmers will doubtless take prompt and vigorous measures to annihilate them.

DYNAMITE.—As we write on Wednesday, it is announced that the police have captured men with dynamite bombs in their pockets, to be used for blowing up street cars. The new anti-dynamiters' law is progressing favorably at Sacramento. The present condition of affairs needs vigorous repression measures, and it will be well to enact them before an indignant populace takes the matter in its own hands. This dynamite abomination must be stopped—legally, if possible—but it must be stopped forthwith.

Southern California Notes.

The wonderful and very gratifying activity and development in Southern California gives the writer on California progress a very delightful and yet at the same time a very difficult theme. We can well remember when the enterprises in that part of the State were so few that they could be compassed in a paragraph without much wearing of the pencil-point, but now the marks of advancement are so many and so diverse and so well distributed over a vast territory, that even a meager account of them would require a volume instead of a paragraph. One can, however, get an idea of the activity in a region when the real estate sales in its chief city, Los Angeles, have been running along at a million dollars a week; when the finest resort hotels in the country are filled as soon as built; when the railways are racing with each other from place to place, as they are now from Los Angeles to San Diego, vying with each other to see whose engine will first shriek beside that beautiful southern harbor; when electric railways are projected for six miles in different directions, as they are now being discussed at Riverside and elsewhere; when land sales in towns like Anaheim bring in train loads of people, who buy all the lots offered at growing prices; when, in fact, every exchange which comes from the district is filled with notes of the enterprising things being done by individuals or by companies, all tending toward the same end, to wit: the development of the grand natural resources of the country.

We are glad, too, to see that with increasing wealth and grandeur the old principles, upon which many of the settlements were made, are being steadily maintained, and that the multitudes who are coming in are of the kind to aid the pioneers in this work. For example, Pasadena, starting out with the idea of curbing the vices of men, as far as practicable, has grown to be a pretty city, with fine streets and buildings, and all the graces of the municipal condition decide that they shall not be marred by too prevalent municipal evils. Last week the City Council, in answer to a petition signed by over 500 citizens, decided not to grant any license for the sale of liquors in Pasadena. This will have the effect to abolish the only saloon in the city and make Pasadena the banner prohibition city in the State. Over $6000 has been raised by private subscription to prosecute any liquor cases that may come up in the future. This is an example that other towns may follow if they have the prevailing sentiment to enforce it, because the lawyers employed by the Pasadena citizens to look into the legal aspects of their action reported, after a careful examination of the new Constitution, and after quoting a vast number of authorities bearing on the case, as follows:

> We are therefore of the opinion that an ordinance declaring it unlawful for any person to carry on any saloon, bar or other place where intoxicating liquors are sold within the limits of your city, would be constitutional and valid.

As stated last week, the citrus fair at Riverside will open on Washington's birthday, Feb. 22. We learn from the *Press* that preparations are progressing favorably, and the indications are that it will be the finest ever held in Riverside, and that means in California. The decorations will be in skillful hands and will be elaborate, while the fruit promised is as fine as any ever exhibited in a citrus fair.

MORE OF THE DOUBLE CALLAS.—A gentleman of this city, just back from a visit at Bodega bay, brought us in two more double callas, which grew on Mr. E. H. Cheney's place there. One of them had a second spadix, also attached to the base of the inner spathe; but "some of the children" had got hold of the flower and broke this off, so that only the place of attachment was visible when the blossom reached us. Our informant says the two spadices were nearly equal, and of the usual hight and appearance. The inner spathe was partially divided down one side, as if disposed to triplication. A number of other double blossoms were opening at Mr. Cheney's.

Fresno.

Between the tawny covers of the February *Overland* are a goodly number of pages devoted to Fresno county—its natural features, history and business enterprises. Some extracts from this interesting article, together with a view in the Barton vineyard, appear below. The selections could more easily have been lengthened; and we shall not wonder if the samples given induce readers to seek the whole:

The great commonwealth of California, extending over ten degrees of latitude, and embracing within its imperial sweep every variety of soil and climate, contains, as its most distinctive geographical feature, two mountain-girded valley plains, one sloping south, the other sloping north, and forming in union the magnificent inland basin of the San Joaquin-Sacramento.

The county of Fresno is located in the San Joaquin basin, about midway between the Tehachapi mountains, which bound the valley to the south, and the region about Lodi to the north, where the plains of the San Joaquin merge into those of the Sacramento. Easterly and westerly—its line of greatest length—the county stretches across the broad valley from the Sierras to the Coast Range.

With an area of 9000 square miles, it ranks third among the counties of California, exceeding in extent any of the following States: Rhode Island, Delaware, Connecticut, Massachusetts, New Jersey.

Fremont, in 1844, camped among the willows and sycamores of Fresno. "Wild horses were raising clouds of dust on the prairie;", columns of smoke, Indian signals of danger, were rising from the tules, bands of elk and antelope were browsing in the oak openings along the foothills, and the pristine wildness of the scene was unbroken. Wild oats grew saddle high, extending for miles on miles; blossoms shone by the acre and league; it was a land lying waste, unfenced, and wonderfully attractive to the pioneers, who slowly made their homes on the Fresno plains. When Grizzly Bear Adams drove his old camp-wagon to Lake Tulare and shot elk and bear along the San Joaquin, there was hardly a house within sight of his line of travel.

But a few years since the vast treeless plains of Fresno and other San Joaquin counties were considered by most Californians a barren desert—in dry years worthless, and, at most, of temporary value only, when a winter season of heavy rains had clothed them with a transient verdure of the native grasses, alfileria and other varieties, forming, during the spring months which followed, brief pasturage to the vast flocks of sheep and herds of cattle that roamed at will over this unsettled region; till, with the coming of summer and the withering and drying away of the herbage, they were compelled to seek the mountain pastures of the Sierras. The country, with the exception of three or four scattered settlements, was uninhabited, save by a few wandering "sheep-herders" and vaqueros.

The growth of the county was slow until the coming of the railroad, when people began to flock thither, settling on sections of land near the railroad and beginning to make agricultural experiments in a small way. The results more than repaid expectations, for the soil, even without irrigation, is rich and retentive of moisture, varying in character from the celebrated red land, so valuable for vineyard purposes, to white ash and sandy loam, of great thickness and inexhaustible fertility.

With settlement came the question of irrigation, by which the resources of Fresno might be doubled, trebled, almost infinitely increased. Irrigation speedily became something more than a problem in Fresno. Recognizing the necessity of artificially watering the lands, various irrigating plans more or less extensive and independent of each other were undertaken and speedily pushed to completion, * * until, as a result of the business sagacity and enterprise of the projectors, there are to-day in the Upper San Joaquin basin, which includes beside Fresno the counties of Tulare and Kern, no less than 1100 miles of irrigating ditches, those located in Fresno alone being capable of watering 600,000 acres of land. Of these canals, the largest is the '76, not long since completed, which has the enormous capacity of 1300 cubic feet per second, and capable of irrigating on a gigantic scale. * *

The settlements for the most part have been made in groups, thus leaving vast tracts of territory yet untouched by the plow, and capable of the widest range of products, from wheat and other grains of the temperate zone to the vine and the nectarine and the citrus fruits of the subtropics.

Ten years ago Fresno county, except the foothills, was one vast unpeopled plain, and only six years have passed since the irrigation ditches began to spread over the valley; but in 1885 over 46,000,000 pounds of freight was shipped from the single station of Fresno city. The assessment roll of the county doubled between 1882 and 1886. The 20,000 people of Fresno in 1886 produced and sold over $5,000,000 worth of marketable products—wines, fruit, raisins, wheat, corn, alfalfa, cattle, etc. Small farms and horticulture have made the town of Fresno the most prosperous place in California. Twenty acres can be bought for $800, and a cabin can be built for $250. The man who can do this, and have $500 more to start with, can get his land into profitable condition and be happy and independent. Men have taken hold without a dollar, bought land on credit, worked for their neighbors, met their payments, and established themselves. There is not a teacher or clerk in the cities of California who could not struggle into the possession of a few acres of San Joaquin valley land. "What will it be worth?" men ask. Wait until the lessons of wisdom that the splendid southern counties of California have taught their slower northern sisters have been fully taken to heart. Wait until a "regular Los Angeles boom" strikes into the heart of the San Joaquin. Wait until the great tide flows at once westward down the Sierra slope, northward over the Tehachapi passes, eastward through the Carquinez portals. Wait until there are more brains to plan, more hands to do. Then—nor will it be long to wait—these lands will hardly have a ratable value, for they will be worth too much to sell. Only crime or misfortune will ever bring an improved homestead of the future San Joaquin into the market.

The Paige Vineyard.

The section of land known as the Paige tract, lying about three miles southeast from Fresno, toward the Malaga Colony, is now being laid out and planted with the best varieties of raisin grapes. Two hundred acres are now in vines, and the whole 640 acres will be planted by next March. Forty men and 35 horses are now at work there plowing the land, moist from the great ditches, the main canal of the Fresno Company flowing along the east line of the tract. The vineyard is laid out in checks 216 feet square, with roads between. Each check will contain 703 vines, and there will be 484 checks in the tract, aggregating 340,252 vines. There will be no trees, ornamental or shade, to draw moisture or shade the vines. It is intended to build the packing-house on the line of the railroad, with side-track for convenience in shipping. The packing-house will be three stories high. The first floor will be partly underground for the sweat-room or equalizer; the second floor will be the packing-room, and the third floor will be used as a box factory.

The Paige tract is owned by Mr. Timothy Paige, the well-known S. F. capitalist, and Mr. T. C. White, whose raisins, grown upon his famous "Raisina Vineyard," have a reputation in the world's markets.

The Barton Estate.

Three miles east of the growing town of Fresno is the famous Barton vineyard, covering a square mile of land. To be more accurate, 540 acres are in vines, 20 acres in orchard, 60 acres in hay and grain, and perhaps 20 acres in buildings, roads, and irrigation ditches. * * The view from the roof of the elegant residence of the estate is extremely beautiful; the whole expanse of the superb Fresno plain, dotted with young vineyards and miles upon miles of new settlement, is spread before the vision. This, with the high, snow-clad Sierras within close distance, completes a picture never to be forgotten. It is a kingly domain, and the great vineyard, surrounded by stately rows of eucalypti and poplars, rises magnificently from the midst of fields of grain and ever-fruitful pastures.

We give this sketch of Fresno's progress only as a foretaste of fuller discussions which we hope will follow. The district has been transformed within a few years from almost nothing into a wealth of production, and yet its career is but opening. Our readers in the region owe it to themselves and to the general progress of the State to tell us more of their excellent accomplishments, and our columns are always open to such recitation.



IN THE BARTON VINEYARD, FRESNO.

PERSONAL.—We had a call the other day from Prof. C. H. Dwinelle, who recently returned to California from his year and a half abroad. He has suffered severely, as was stated in the RURAL some time ago, from a brutal assault made upon him by a sleeping-car porter on the New York Central, while on his way East, in July, 1885. The blow still affects his eye, and unfortunately, as is said by competent physicians, will be lasting in its influence upon his sight and comfort. It is a serious matter for a man doing such important work as Professor Dwinelle, to be disabled in such a manner, and it is all the more outrageous to have a New York judge attempt, by a quibble, to free the railroad from the responsibility of such treatment of passengers. Professor Dwinelle proposes to carry the matter to the court of last resort in the interest of public safety, and to force the company to pay him damages sufficient to enable him to continue his work with the help of an amanuensis. If the New York Central cares for its reputation in this State, it should do something to assure people that it has some regard for the safety of its patrons.

Irrigation and Alkali.

The occurrence of alkali in our farming lands is a matter of the greatest importance, and especially so since the extension of irrigation has made alkali a greater factor than heretofore in California agriculture. The investigation of alkali and the prescription of remedies for its reduction was one of the earliest undertakings of Prof. Hilgard and one in which he has rendered the State signal service. We have given from time to time, during the last ten years, outlines of this work, and we are not surprised to see that Prof. Hilgard continues to train his forces against the old enemy in all the new forms which it assumes. There has just been issued from the College of Agriculture a special report of 45 pages, dealing directly with "Alkali Lands, Irrigation and Drainage in their Mutual Relations." A copy can be obtained free by addressing Prof. Hilgard, at Berkeley, and it should be in the hands of every farmer upon whose lands traces of alkali appear. In his introductory note, the writer says:

At first only a few individuals, directly affected by the occurrence of alkali at inconvenient points in their cultivated land, took much interest in the question; but as the San Joaquin valley came forward as a region of profuse fertility and promise, the fact that some of its otherwise most eligible portions are marred by the alkali tracts interspersed with the best lands, attracted more attention, and the question of their possible reclamation for culture was mooted. Yet for some years this question remained more a matter of curiosity than of serious concern. It was not until it began to be noted that in the irrigated districts of the Kern and Tulare valleys the alkali was continually extending its area, and seriously damaging the wheat crop where before there had been no sign of it, that public interest was aroused; but even then the fear of injuring the sale of lands situated in the regions concerned, caused many to avoid and frown down mention or discussion, precisely as has been done in the case of the phylloxera. But the specter would not be laid by the hushing-up policy in either case; complaints of the same tenor came up from one irrigation district after another; until now, when the necessity for the establishment of some definite system of irrigation has become too obvious to be longer put aside, the discussion of irrigation and drainage in their bearings upon the alkali question, in the light of past experience, not only in California, but in other irrigation countries, cannot and should not be postponed, since to do so can but result in an unnecessary repetition of the same costly experience.

For this reason Prof. Hilgard has collected into a single publication the various investigations which he has made on alkali, and outlined the course which must be taken to guard against the evil which the increase of these pernicious salts threaten to our irrigated lands. Coupled with these original investigations and supporting them, is an outline of the efforts against alkali made in the irrigated districts of East India, where the problems are seen to be the counterpart of those which face Californians, and which must be attacked and solved if our State is to be fully developed.

The report will be found to have a deep interest to all who desire to be informed upon the peculiar phases of California agriculture, and to those whose lands are in alkali districts its importance can hardly be overestimated. Fortunately there is a remedy for the evil even in its broadest extension, but in such a case, of course, the remedy must be as broad as the disease. Our friends in the San Joaquin valley, who are laboring earnestly for a drainage system to complement their work for irrigation, will find in Prof. Hilgard's report data which will

lead them to redouble their efforts and give them new force in commanding the interest of the careless and thoughtless. We have often appealed for drainage as an essential, both in individual forms and in districts where the water level is rising too high, and the striking statements given in Prof. Hilgard's report will incite all to insist that immediate attention be given to the needs of the State in this regard. We do not attempt to outline the contents of the report, because all who have any interest in it, or desire to know about it, can have the full report for the asking.

Central California Citrus Fair.

[Written for the Rural Press by H. M. H.]

A literary and musical entertainment has been given nightly, beginning the second evening of the fair, when the opening exercises took place. An overture by the Fifth Infantry band of 18 pieces, L. Chaffers conductor, was first on the program. The same performers discoursed excellent music every evening during the first week, to the satisfaction of the visitors and managers.

On Tuesday evening, Feb. 8th, a large number of people being in attendance, notwithstanding the generous downpour, President Cyrus Jones introduced Rev. Dr. C. C. Stratton, president of the University of the Pacific, who delivered an able and appropriate address, of which the following is a brief synopsis:

Dr. Stratton's Address.

Ladies and Gentlemen: When the invitation to deliver the opening address was extended to me, I asked myself what qualifications for the purpose I possessed. I remembered that when a boy I followed the plow, swung the cradle and bound the sheaves; but the semi-tropical scene before me to-night convinces me that my experience as an Eastern granger 30 or 40 years ago avails me little on this occasion.

I visited some friends last summer in Los Angeles, and while there saw many things of interest. What a man of ordinary intelligence and observation cannot learn there in a week regarding natural scenery and other attractive features, is not worth knowing. I saw many fine displays of citrus fruit, but none that compares with the one before me.

The people of Los Angeles have unbounded confidence in the resources of their country, in whose praise they were prolific. This is commendable. To them, things the most commonplace assume a poetic grandeur. "See," said one, pointing to a reservoir filled with water of inky blackness, "see the beautiful amber color of the water." At the mention of the word amber, I thought of the magnificent gems that deck the crowns of kings and adorn the necks of queens; of the poetry suggested by the word, and of its application to the repulsive-looking water. This remark taught me to adopt a more poetic style of nomenclature. For instance, if looking upon our own western mountains, when obscured by clouds or smoke, I must, instead of using prosaic language, describe them as robed in violet hue, made so by the delicate softness of our atmosphere.

My friend, who was endeavoring to awaken enthusiastic responses from me, was amazed at my indifference, and, surmising the reason, asked me how Santa Clara valley compared with Los Angeles.

I told him that I had not witnessed anywhere so entrancing a scene as the view of our own valley from the Alum rock road, whence we may see the beautiful city of San Jose, surrounded by golden fields of grain, extensive vineyards, numberless orchards and forests of ornamental trees, with the Bay of San Francisco stretching away to the northward.

I would not live in a country that can afford but one kind of product. Beginning at San Jose as the lowest point and gradually rising on all but the bay side through the valley, and the mountains to the summit, we find such varieties of soil and climate as are adapted to the production of cereals, flowers and fruits, including nearly all the semi-tropical.

The student of political economy, in search of a good location for a home, must certainly choose the Santa Clara valley, with its numberless products, over Colusa with its single production of wheat, or Los Angeles with its oranges.

The cultivation of a variety of fruits will have a tendency to break up large land-holdings, inasmuch as it is impossible to build up many homes on a large estate. Let us suppose that the large ranches in this valley were subdivided into farms of from 10 to 20 acres, supporting happy homes and their attendant school-houses and churches. There would not then be a more desirable country this side of the Better Land.

I cannot conceive of an interest more intimately connected with the advance of intelligence than the one that calls us together to-night. Compare the fruit industry with the wheat interest. The wheat-raiser produces grain on a large scale, calling in the assistance of tramps and idlers from the towns. The harvest ended, the employer has no further care for the welfare of the laborer, who returns to his life of idleness and dissipation. Such employment is pernicious to industry and promotes the tramp nuisance. Farming on a small scale, and raising a variety of fruits, gives continuous employment to the laborer, who is made one of the household and treated like a human being. One member of the community cannot flourish and the other decline, and at the same time the highest welfare of the citizen obtain.

I have been studying the industries of Southern Europe, which our valley is about to rival. Comparing the mean temperature of Rome and of Sacramento, we find that the two cities have about the same climate. Sacramento could undoubtedly compete with Italy in the production of fruit. If this is true of Sacramento, how much more is it true of Santa Clara valley!

The magnificent display before us is proof that we can produce the orange, the lime and the lemon as favorably as in France, Italy and Greece.

Scientific observation teaches us that the orange tree can withstand a temperature of 12° and the lemon tree of 6° below the freezing point. Since in our valley the cold has never been known to be so severe, the fears of the most timid in regard to growing citrus fruits are removed.

These trees are the most beautiful as well as the most profitable grown. They tell me that every orange tree in Los Angeles county has sold a thousand acres of land. There is something attractive in the contrast between the green leaf and the golden fruit. Let us, then, cultivate semi-tropical fruits, but not to the exclusion of the apricot and the plum. In this course will lie our greatest prosperity and wealth.

Wednesday Evening.

The following poem, written especially for the occasion by Mrs. E. O. Smith, was read in fine style by Miss Benfey:

Cradled, soft grassy hills between,
Clothed in her robes of varied green,
Lay a beautiful maiden, asleep. No tongue,
Though inspired by the muses, has spoken or sung
Of such marvelous beauty and wealth of charms
As lay slumbering beneath her folded arms.
A form in which all graces seemed to lurk,
A crowning of Nature's handiwork;
In the beautiful tints on her face that shone,
The rose and the lily had rivals grown.
In her heart lay buried such treasures as those
Which earth on her favored children bestows.
Tall trees, with lichen and moss overgrown,
Above her head had a canopy thrown.
Long trailing vines, decked with wild flowers rare,
Twined themselves into wreaths for her shining hair;
While the hills sent down their waters sweet
To ripple and dance at her pretty feet.
Many a painter, with talents rare,
Stooping to gaze on her lying there,
Had exclaimed, "Ah, none but a hand divine
Could portray on canvas such charms as thine."
Now, this beautiful maiden had many a swain
Who had journeyed from far in hopes to gain
A place in her heart. They had brought their store
Of treasure rich, in her lap to pour;
They tasted her sweetness, her ringlets caressed,
And gathered the roses that lay on her breast.
But no harder part has lover e'er played
Than wooing the heart of a sleeping maid;
So they wearied at last of pressing their suit
To eyes that were closed and lips that were mute,
And lured by the dazzle of womanly art
That so often beguileth the human heart,
They stole from her lifeless presence, away
To sport with maidens more wakeful and gay.
But the beautiful sleeper awoke at last,
And beholding the throng as it hurried past,
She exclaimed, "Ah, me! Too long have I slept,
And no watchful eye has its vigil kept.
Behold those who homage should pay to me,
To others, less charming, are bending the knee.
O that one should allow, o'er their senses to creep,
The bewildering charm of the goddess of sleep.
I'll arouse me, and reach out a welcoming hand
To other proud suitors throughout the land;
I will open my heart for the jewels there,
To bedeck my robes and adorn my hair;
Will herald my virtues till, hearing my voice,
The proudest of courtiers shall make me his choice.
Shall call me his glory, his joy and his pride,
The fairest of daughters, his beautiful bride;
And shall dwell in my sunlit halls with me.
Not too late have my eyes been opened to see
That a maid, howe'er fair, who a bridegroom would take,
Must be on the alert—must be up and awake."

ENVOY.

The beautiful maiden, so marvelously fair,
Is our own lovely valley, the vale of St. Clare;
Her suitors are those who would bring of their spoil
To invest in her treasures of climate and soil;
Her sleep is that spell which has hung like a pall
O'er her slumbering bosom, and held in its thrall
The fairest child of that glorious State,
Whose entrance way is the Golden Gate.
Not too late has her hour of awakening come—
Already she catches a distant hum;
'Tis the heralds, announcing her coming groom
And his courtly train; 'tis the Princely Boom.

Miss Benfey, being encored, rendered Will Carleton's "Schoolmaster's Guests" with excellent mimicry.

Miss Cora Finch, of whose musical talent San Joseans are justly proud, was listened to with marked attention while she sang inimitably "The Last Rose of Summer," and as an encore "Polly, the Cows are in the Corn."

Messrs. Moody, Hervey, Boulware and Harrell sang "Huntsman Song," and on being recalled a "Serenade."

Floral Award.

All the ladies who entered floral designs, in competition for the premium offered by the Horticultural Hall Association, met in the hall after the flowers had been placed on exhibition, and balloted for a Committee on Award. Mrs. D. C. Feeley, Mrs. D. C. Vestal and Mrs. M. G. Buzzo were elected. Mrs. E. O. Smith, not wishing to compete with ladies whom she had induced to enter flowers, very generously withdrew from the contest her own exhibit, which was superbly disposed in a rockery of caverns, lakes and rills.

The premium given is a very fine oil painting of safrano roses, by Mrs. J. E. Brown, from a bouquet plucked last January. The picture, which the association had purchased for $20, was awarded to Mrs. Dr. A. J. Cory, of San Jose, for the largest variety and most artistic arrangement by an amateur of natural flowers grown out of doors. Her design consisted of a lyre of laurestinus, with a disposition of immortelles into strings alternately red and white.

The following ladies received honorable mention: Mrs. H. S. Foote, Miss Mattie Ross and Mrs. S. T. Ingalls.

Mrs. Foote's design was constructed upon a wire frame having the outlines of a triangular pyramid, trimmed with smilax. At the apex, and at the three angles of the base, were exquisite bouquets of safranos, pinks, Japanese chrysanthemums, azaleas, fuchsias, and other choice flowers. This piece looked like an escape from Fairy Land.

A striking display made by Miss Ross consisted of a large variety of pansies arranged in the form of a butterfly, with wings measuring two feet from tip to tip.

Other Floral Exhibits.

Mrs. N. S. McClay's horseshoe, made of calla lilies, laurestinus, hollyberries, and other winter growths, appeared to good advantage.

A very unique and attractive design is shown by Miss Adda C. Munn, who resides on the Berryessa road, about two miles from San Jose. It consists of a horseshoe of violets and smilax, interwoven with maiden-hair ferns. The arch is lined with flowering quince, and the top surmounted with red and variegated pinks. The back is of white gillyflower and laurestinus, and the whole rests upon a stand entwined with smilax, the base being formed of marigolds.

Mrs. T. O. Smith shows a basket of marguerites.

T. Conant, of Santa Clara, has a design of a horseshoe, above which is a five-pointed star, both made of everlastings.

Miss B. Spangenberg a collection of choice flowers, grown in the open air at Cupertino.

E. Bourguignon.

A florist of San Jose, makes an exceedingly fine display. His palms of the Latinus Senfortia Elegant and Dracenus varieties are very beautiful. He has a Marechal Neil rose in bloom; a rare lily, the Crinum Asiatica, an uncommon evergreen tree known as the araucaria, a native of Australia; several kinds of the croton; an Australian tree fern; some pretty pinks, begonias, azaleas; a stephanotis, which bears a white flower like wax; a camphor tree; a Fresia, which grows from a bulbous root; an ivy geranium with variegated leaves; and a Eufortia which has a red flower and a stem covered with large briars. Mr. Bourguignon's floral monument, which stands over five feet high, is a thing of beauty, and it is a pity it cannot be a joy forever. The front of the cubical base is studded with the choicest of flowers, and is intended as an emblem of Central California. The other three sides, trimmed with common flowers and acoleus leaves, and presenting a less attractive appearance, represent the other portions of the State. Above the base is a globe completely environed with rare gems of the floral kingdom, typifying Santa Clara county. At the top of the monument, spreading at an angle of 75 degrees, a fan, arrayed in the most exquisite specimens from the hot-house, symbolizes the city of San Jose. Upon each division of the monument the initials of the part of the State represented are deftly wrought in flowers.

Santa Cruz Flowers.

When one who has heard of the fame of Santa Cruz county as a region free from frost, sees the luxuriant display of winter flowers grown in the open air, he must exclaim, with the Queen of Sheba, that the half had not been told him. Long tables, extending from the middle to the end of the hall on the west side, are laden with a profusion of flowers culled from their dooryards by the ladies of Santa Cruz. Surely Santa Cruz county is a veritable land of flowers in eternal bloom!

Upon one of the tables the name, "Santa Cruz," is worked in the flowers of the pyrus Japonica (flowering quince), entwined with acacia blossoms. Around the name is a border of marigolds and narcissus. Against the wall stands a ladder with the words "Santa" and "Cruz," lettered in double geraniums upon the rounds. A large variety of wild ferns from the mountains adorn the wall. A very beautiful domestic fern five feet long, with 25 branches 15 inches long, extending from the main stem, attracts general admiration.

On a table 30 feet in length are to be found the following kinds, kept fresh in moistened moss: Carnation pink, a large variety of geraniums, heliotrope, veronica, cestrum, chrysanthemums (15 varieties), violets, mignonette, stocks, wallflower, myrtle, marguerites, pyrus Japonica, laurestinus, belladonna, ageratum, smilax, narcissus, calla lilies, jonquils, spiræa (three varieties), heath, a variety of ferns, marigolds, double hollyhock, abutilon, habrothamnus, fuchsias (30 varieties), sweet peas, centaurea, three varieties of acacia, begonias, primrose, valerian, cactus, pelargonium, orchid, mezerium, gloxinea, larkspur, hyacinth, daffodil, vinca, laburnum, Japan globeflower, polyanthus, green rose, amaryllis, agapanthus, iris, coxcomb, mahonia, penstemon, bachelor's button, ampelopsis, hydrangia and gladiolus.

The flowers sent from Santa Cruz are in charge of Mrs. A Pope, assisted by Mr. A. Loomis, of Wrights.

Stanislaus County.

In the exhibit made by Mr. Geo. A. Goodell, of Knight's Ferry, there are 1000 oranges of six varieties, viz.: Washington Navel, Rose Navel, Mediterranean Sweet, Malta Blood, Seedling, and Mammoth. They are exceptionally fine, both in color and quality.

Mr. Goodell informs us that the country around Knight's Ferry is well adapted to the growth of oranges. There is scarcely a door-yard that has not one or more of the trees. A neighbor of his, Mr. Collins, took a load of ripe oranges to market on the 1st of last December. One of Mr. Goodell's trees bore 2000 oranges this season. He and his neighbors have made a great success with the lemon, the trees this season being loaded. He has some dried figs of the Mission variety, and Mr. J. H. Prowse, of the same place, has recently set out an orchard of 10 acres of figs.

Unfermented Wine.

W. W. Waterman, of Highland, Santa Cruz county, has on exhibition some grape juice three years old and not fermented nor boiled. It is as refreshing as the grape. The recipe is a secret. This juice has been exposed to heat and the atmosphere for a week without fermenting.

Santa Cruz County.

Mrs. F. J. McCann, of the city of Santa Cruz, shows some branches bearing Cuthbert raspberries; M. W. Wittle exhibits lemons and the melon pear, which looks somewhat like a banana.

To prove that there is very little frost in Santa Cruz county, it may be stated that there are exhibited thrifty, tender green tobacco plants, standing about three feet high. These came from the place of Mr. Gaffney, in Pajaro valley, near Watsonville.

The same gentleman shows some fine Chili peppers growing in a box of earth, and a lime tree in blossom.

Mrs. James King exhibits two plates of lemons; J. A. Logan, one plate of lemons; F. A. Hihn, two plates of oranges.

Mrs. C. H. Allen exhibits a table-top made of redwood burl, which has been given a superior finish. It compares favorably with the finest Suisun marble in appearance.

Prof. C. H. Allen, principal of the State Normal School, brings from his home at Skyland a plate of sound Newtown pippins, grown at an elevation of 2000 feet.

Wright Bros. show some fine oranges, grown 1500 feet above sea level; W. H. Aiken very good oranges.

Miss Maggie Tennant exhibits sound apples that shine as if varnished, and some very large pears, which were grown by Mr. Edward Berwick, of Carmel valley, Monterey county.

John Tennant, of Edenvale, Santa Clara county, has some pomegranates, and Miss Maggie Tennant, of the same place, some olives on branches.

Vegetables.

F. M. Tenny, of San Jose, makes a fine show of vegetables, there being eight varieties of squash, two of pumpkin, one of carrot and one of citron. A white Belgian carrot weighs over 20 pounds. His pineapple squash is both a summer and a winter squash. One carrot of peculiar growth consists of six fingers 15 inches long and two inches in diameter.

Kellogg & Morse, seed-growers, of Santa Clara, show some globe onions four inches in diameter.

A. E. Woodsum, of San Jose, exhibits a box of Eastern black walnuts.

E. W. Harrison, of San Jose, displays to advantage a box of English walnuts, some dried prunes, and several monstrous beets, grown without irrigation.

Wm. Pascoe, of Stockton avenue, near San Jose, shows English walnuts.

Judge A. L. Rodes, who resides on the Alameda, exhibits ripe and dried olives, hard-shell and soft-shell almonds, and California and Eastern black walnuts.

Nathan Hall, of Cupertino, shows raisins, oranges and almonds.

L. C. Casey, San Jose, has a fine exhibit of oranges, some of which are in clusters, some large Japanese persimmons and walnuts.

Dr. W. F. Gunckel, of Cupertino, sends fine tomatoes and Languedoc almonds.

M. M. & J. J. Shaner, of Los Gatos, have one of the finest collections in the fair; shaddocks, five inches in diameter; Italian chestnuts, some of them in the bur, an interesting sight; also Languedoc almonds and English walnuts.

Pecan Nuts.

Though a good many pecan trees have been planted in this county, there are few old enough to bear. However, Mr. V. C. Mason, of San Jose, furnishes a plate of these nuts. Mr. W. V. Gaffey, whose place is located at an elevation of 500 feet above the sea level, in Pajaro valley, Santa Cruz county, exhibits some almonds.

Mandarin Oranges.

From the farm of Capt. Jas. Aram, San Jose, come Mandarin oranges three-fourths of an inch in diameter, a section of bark from the cork oak, a box and a plate of oranges, and a plate of green limes.

Dried Fruit.

Mr. A. C. Penniman shows some beautiful specimens of dried fruits, neatly boxed. His evaporated prunes will go from 40 to 50 to the pound. From 100 pounds of green fruit he gets

(*Continued on page 157.*)

For Coast Defense.

The text of the bills making appropriations for ordnance and sea coast defenses, as passed by the Senate, is as follows:

SECTION 1. That the Secretary of War be and is authorized to make contracts with responsible steel manufacturers, after suitable advertisements, to continue not less than 30 days in the newspapers most likely to reach the manufacturers addressed, for a supply of rough-bored, rough-turned and tempered steel, in forms suitable for heavy ordnance adapted to modern warfare, and steel finished for armor and other army purposes, in quantity not to exceed 10-000 gross tons, in quality and dimensions conforming to the specifications, subject to inspection and tests at each stage of manufacture, and including all parts of each caliber specified; provided that no money shall be expended except for steel accepted and delivered; that each shall contract to erect in the United States a suitable plant, including the best modern appliances capable of making all the steel required, and of finishing it in accordance with the contract and agreement in the ordnance contract; to deliver yearly a specified quantity of each caliber, the time of delivery of the small caliber to commence at the expiration of not more than 18 months, and that of the largest caliber at the expiration of not more than three years from the date of acceptance of contract, and that all forgings shall be manufactured in the United States.

SEC. 2. That the Secretary of War be and is hereby authorized to erect at Watervliet arsenal, West Troy, N. Y., an army gun factory, in accordance with the report of the Gun Foundry Board of December 20, 1884, and for finishing and assembling guns adapted to modern warfare to the approved sizes, and for the manufacture of gun-carriage and ordnance equipment for the army at a cost not to exceed $1,000,000.

SEC. 3. That for the purposes of the foregoing sections the sum of $8,000,000 is hereby appropriated, out of any money in the treasury, not otherwise appropriated, to be available during the six years from January, 1887.

SEC. 4. That for the purpose of the construction of fortifications and other work, as coast defense, such as masonry and earthwork foundations for turrets, casemates and magazines, submarine mines and galleries, exclusive of armor, in accordance with the recommendations of the Board of Fortifications or other defenses, as appointed by the President of the United States, under the provision of the Act of Congress approved March 3, 1885, $5,000,000 to be expended, per direction of the Secretary of War, is hereby appropriated.

The Senate has passed the bill to encourage the manufacture of steel for modern naval ordnance, armor, shafting and other naval purposes, and to provide heavy ordnance adapted to modern naval warfare. This bill is like the other in important particulars, except that the gun factory is to be at the Washington Navy Yard, and that the fourth section of the other is omitted.

Johnny's Composition on Medicine.

"There is two kinds of medicine besides the kind you Rub On and the first kind is the Soft Kind which you take with a spoon while A man holds your Head and you kick and Riggle some because it Tastes so and the other kind is the Hard kind which is called Pills and it is the Hardest of the whole because it is so Hard to go Down but it does not make any Difference which kind you Take when you get it Took you wish you Had not for it makes quite a Row in your Stomach and Riots Around."

Evidently Johnny's experience in medicine does not include Dr. Pierce's "Pleasant Purgative Pellets," which are easy to take and do their work quietly and calmly. Neither does it include in the way of "Soft Medicine" Dr. Pierce's "Golden Medical Discovery," which though powerful to cure all chronic derangements of the liver and blood, is pleasant to the taste and agreeable in its effects. Unequaled as a remedy for all scrofulous diseases, pimples, blotches, erruptions, ulcers, swelled glands, goitre or thick neck, fever-sores and hip-joint disease.

"Golden Medical Discovery" will not cure a person whose lungs are almost wasted, but it is an unfailing remedy for consumption if taken in time. All druggists.

Don't hawk, hawk, and blow, blow, disgusting everybody, but use Dr. Sage's Catarrh Remedy.

It Should Always be Borne in Mind

That time is the only really impartial test of genuine merit, and that according to the universal law of "the survival of the fittest," few sewing machines have withstood this test. Therefore, the only safe thing to do is to buy what time has proven to be the fittest"—the "DOMESTIC" SEWING MACHINE.

Cheap Money for Farmers.

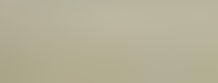
Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

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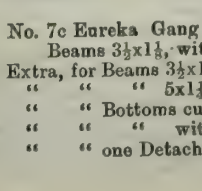
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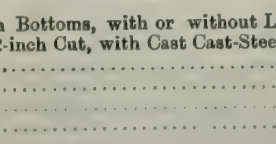
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The Leading Gang Plows of the United States.

They are made to adapt themselves to various kinds of soil, and are supplied with different patterns of Plow Bottoms.

These implements have received more State and County Fair Premiums, have been successful in more plowing contests, and have met with a more extensive sale, than any Gang Plow ever invented.

EUREKA GANG PLOW, No. 7c.



They have been the Plows against which all dealers and manufacturers interested in the sale of other Gangs have waged the fiercest war, and the ones by which inventors have measured their efforts, well knowing that if they could make a more satisfactory implement than the Eureka, they could justly claim to have the best.

The efforts in this direction, both by Eastern and California inventors, have been strenuous and unremitting, and possibly might have been crowned with success but for certain stumbling-blocks in the shape of broad patents, covering all essential points, whose validity they have compelled us to establish in the Courts.

Weight, with Steel Bottoms, 638 lbs.

No. 7c Eureka Gang Plow, with 5-16 Iron Center Steel Moldboards, chemically hardened, Cast Cast-steel Shares, with or without Land Gauge, Beams 3½x1⅛, with 2 extra Shares, 10 or 12-inch Cut	$95 00
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Weight, with Chilled Iron Bottoms, 688 lbs.

No. 7c Eureka Gang Plow, with Chilled Iron Bottoms, with or without Land Gauge, Beams 3½x1⅛, with 2 extra Shares, 10 or 12-inch Cut, with Cast Cast-Steel Shares	$95 00
Extra, for Beams 3½x1¼	Per Gang. 3 00
" " " 5x1¼	" . 10 00
" " Bottoms cutting 14 inches	" . 5 00
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" " one Detachable Beam	" . 5 00

THE LUMBERMAN.

The Great Demand for Lumber.

In the present extensive and constantly growing demand for timber and lumber, only the roughest approximate estimate can be made of the magnitude of its use. Leaving entirely out of calculation the more visible demand for ordinary building purposes, and its multifarious uses in the various industries which occupy the numerous and extensive wood-working shops of the country, we give a few items of other demands for lumber. The cost of replacing decayed ties by the railways of the United States for 1885 exceeded $30,000,000; repairs of station buildings and road crossings, $19,500,000; repairs of wooden and wood parts of bridges, $6,250,000 (estimated); repairs of freight cars, $22,500,000 (estimated); repairs of passenger cars, $7,500,000 (estimated). The renewal of telegraph poles and fixtures on 160,000 miles of line constitutes a large item. The loss to the agricultural interest is much greater. The tenth census reports the cost of fencing in 1879 at $77,763,473, the most of which was for repairs.

Damage Caused by Destructive Fungi.

One of the largest sources of destruction to lumber is that caused by fungi. The loss caused by fungi on the 9,000,000 dwellings, with their accompanying buildings, and the $406,520,055 worth of agricultural implements which appear in the census reports, and that on the 6,654,997 tons of marine, and on wharves above water, form other large items. The lumber interest is also a great loser through the quantities of timber that are destroyed in store. The destruction and decay of lumber in railroad ties, bridges, etc., is largely due to the destructive presence of fungi. The mere mention of these facts will give some idea of the immense loss from this single source.

The Tree-Killer.

In this connection the following paragraph from a South American journal will be interesting as well as instructive: One of the curiosities of the forests on the Isthmus of Darien and in a part of Central America is a plant called the tree-killer (matapalo). It starts as a climber upon the trunk of large forest trees, and owing to its marvelously rapid growth, soon reaches the lower branches. Then it begins to throw out numerous shoots, which entwine themselves all around the trunk and branches, and also aerial tendrils, which, as soon as they reach the ground, become rooted in the soil. In the course of a few years this gigantic parasite will completely envelop the trunk of the tree which has upheld it, and eventually kill it. The whole dead tree rots away, leaving the hollow matapalo, which continues to flourish standing alone.

An Immense Order for Railroad Ties.

It is said that the Southern Pacific Co. is letting contracts for 300,000 ties at Truckee, which will require the cutting of 10,000,000 feet of timber. We must have railroads and they must be largely multiplied both in number and extent, and until some better and cheaper material than wood can be made available for railroad ties, such roads must continue their heavy drafts upon our forests. The annual demand for lumber is largely in advance of the annual maturity of trees suitable for lumber purposes. Our State Board of Forestry, in its last and most elaborate report, shows quite conclusively that this state of affairs exists in California to-day. The time is coming when earnest measures will have to be taken as a matter of necessity and self-preservation, so to speak, and the longer it is deferred the harder the problem to be solved will become.

So far as railroad ties are concerned, it would well repay the road companies or indeed any private person or association to raise ties for this special purpose. This is already being done in Kansas by the railroad companies themselves. It is said that similar ones are being established in other States. Why not in California? Experiments have been made with both glass and iron; but thus far, for various reasons, they have not proven satisfactory—one important reason is said to be their excessive rigidity.

It is shown in the report of the Board of Forestry that in various places the timber line of the State has receded over 15 miles since the American occupation. This recession still continues and nothing is being done toward providing for forest reproduction or protection, because we have no laws covering the case. The board has drafted several measures for consideration by the Legislature. It is a subject of great importance and one affecting the best interests of the State, and it is to be hoped that before the close of the session the question will have received due attention and the neces sary legislation been enacted.

Examples are cited in the report which demonstrate the importance of this matter. It is shown that in one place, the Santa Clara river valley in the southern portion of the State, the timber and brush have been so thoroughly removed along that river and its tributaries that within the last four or five years the waters run much more violently and destructively than ever before, and that estimates from individuals on different locations on the river show that (as a consequence) between 1000 and 5000 acres of good land have been cut away by changes in the channel of the streams or covered with debris, so as to be worthless.

It appears to be the general sentiment that if the peculiar climate of this State, upon which more than anything else, save, perhaps, water, its future prosperity depends, is to be preserved, there will have to be an end to the indiscriminate cutting of timber and the clearing away of the undergrowth in forest regions by means of fire.

A Big Lumber Yard.

The latest acquisition to the Contra Costa shore is the vast lumber yards of the Port Costa Lumber Co. This is not a conjectural scheme, but an actual reality, and its importance to this county may be judged from the fact that the yards are to be the chief distributing point for the entire coast, even San Francisco being secondary.

The Port Costa Lumber Co. is located at Valona. It has acquired three franchises, being the old Moore & Smith franchise, one purchased from Dr. Strentzler and one from Prof. John Muir. These include the entire water front from Starr's mills, at Crockett, to Vallejo Junction. The president of the company is Mr. John A. Hooper, of San Francisco, and the gentlemen composing it were induced to locate here through the instrumentality of Mr. A. D. Starr, of Starr's mills—a gentleman who is fully acquainted with the value of our water front for business purposes, and who is only too willing to impart his information to others, with a view of building up our county and adding to our material resources.

The company has let a contract for the building of 1500 feet in width. This will include all of the Strentzel franchise and 200 feet in length each of the Muir and Moore & Smith franchises. The wharf will be constructed on a new plan, with a view of lessening time and expense in unloading ships. As built, their vessels can discharge at the same time, and a further extension of the wharf will accommodate others. It is definitely decided to begin the work of construction within a week or 10 days.

This company is a union of all the Oregon pine lumber interests of the coast. This class of umber will be a specialty. The yards at Valona will be the distributing point for all points on the coast. Lumber will be brought by ship direct to the Valona yards and unloaded there. All other yards, including those in San Francisco, will be secondary, and will be supplied from Valona by rail and water. The old Puget Sound Lumber Company's yard at South Vallejo will be closed, but the Pope & Talbot yards there will be continued as subyards. The yards at Valona will give constant employment to 150 men.—*Martinez Gazette.*

GOVERNMENT TREE PLANTING.—Norman J. Colman, the U. S. Commissioner of Agriculture, in his second annual report to the President, in speaking of forestry says: There is practically no reproduction attempted or forest planting done worth mentioning, in comparison with the enormous annual consumption. "As the first step of reform," he says, "undoubtedly the land policy of the United States, in timbered regions, requires a change according to the conditions of those localities. Beside the good example which the Government may set in taking better care of its own timber lands, it might appropriately extend its operations by planting on a large scale in bodies of several contiguous sections in the treeless States and Territories of the West. The military reservations in these States, owned by the General Government, would form the most desirable field of operation. Only by such extensive tree planting can a desirable modification of the extremes of climate on the Western plains be expected."

WINTER MELONS AND SUNFLOWERS.—Ransom Greene, of Alma, Santa Clara county, brings us a Cassaba melon, which demonstrates the value of the species as a winter fruit. Mr. Greene finds that with him the melon ripens continuously from November to January, thus giving a long market season. Mr. Greene advertises in this issue seed of the famous sunflowers which were shown at the last Mechanics' Fair, and where the heads, 16 and 17 inches in diameter, attracted much attention. Mr. Greene finds these sunflower seeds very valuable as poultry food, feeding them with other food, as they are too rich alone. We are promised an article on sunflowers for poultry, which will no doubt be interesting.

FRUIT CANNERY AT SANTA ROSA.—The committee lately appointed by the Fruit and Grape-Growers' Association of Sonoma County to solicit aid for re-establishing the Black fruit cannery at Santa Rosa, held a meeting in that city Feb. 4th. The *Democrat* reports that they resolved unanimously "that a fruit cannery is a vital necessity in Santa Rosa, the great center of fruit-growing, and that we will immediately proceed to take subscriptions for and to organize a stock company with a capital of $50,000—500 shares at $10 each." The following named of the committee signed for $1000 worth of stock each: J. H. Glenn, E. A. Rogers, Capt. Grosse and B. M. Spencer. Before the meeting adjourned E. W. Davis subscribed for 100 shares of stock ($1000).

Grading Prunes by Machinery.

John Rock, the well-known fruit-grower and nurseryman, of San Jose, writes to James Loney, of Pomona, as follows:

Dear Sir: Your favor of the 6th at hand and contents noted. You have, undoubtedly, the most prolific prune orchard in California, and your prunes were the sweetest I ever tasted.

The grading of prunes is done here usually before they are dried, as they come from the tree; they are then round and roll over the riddles with ease; after they are dried and rough it takes more work to roll them over the riddles and stick fast.

The riddles or machines in use are of various make, and are a new institution, as they have been only in use last and this year, and none are perfect yet, although some claim patents on their machines and do not want anybody to see them. Most of them work on the principle of a fanning mill; three to four riddles placed above one another, each with a slight incline, and a spout on the side where each grade drops in a box. Some have a long riddle, say 12 feet long, with three different sizes of wire screen. This riddle is hung up on four ropes with an incline; the prunes are thrown in the higher end and by shaking it they roll down and fall through the holes and in boxes underneath. This machine will do to grade your dried prunes. The first piece of screen should be small, to let only stems and dirt through, and no prunes.

A good many ways of packing have been done here to come near the French way. The custom of dipping in syrup has been condemned; and only hot water or steam is used before packing.

There are no machines made for sale; they are all home-made.

ANOTHER HILLTOP HOTEL.—The magnificent Raymond, at Pasadena, appears likely to have a rival—at the safe distance of 50 miles—for it has been announced in the *Semi-Tropic* that a company has been formed, with a capital stock of $100,000, to erect one of the finest hotels in the State on the top of Slover mountain, about one and a half miles from Colton. Surveys have been made and the ground laid off. On the top of Slover mountain is one of the most beautiful plateaus, 20 acres in extent, that lies in California. The view is grand, and takes in the surrounding country for a distance of over 60 miles in nearly every direction. The air is pure, and the altitude just right for health. An electric car line is being surveyed to reach the spot, and pure mountain water will be piped to large reservoirs at the base of the mountain and thence forced to the plateau and carried to all parts of the hotel and grounds. No more beautiful nor healthier spot on God's green earth could have been selected for a hotel site, and the enterprising gentlemen who have the project in hand well know the importance of the location. The hotel will be within a few minutes' walk of the California Southern and Southern Pacific railroad depots.

Castor Beans.

EDITORS PRESS:—I would be pleased if you would call upon some of your subscribers who are able to give it, for information on the cultivation of the castor bean. What are the conditions of soil, climate, etc., most favorable, and what the average yield, price, and where the market?—EDMUND WRIGHT, *Red Bluff.*

[We would like to have information from readers who have had experience with this crop. We know that many have been disappointed with it and that the production has never advanced as was expected, but we are not fully informed as to reasons. Readers are also inquiring as to methods and machinery for making the oil. Doubtless some can give us interesting letters on these points.—EDS. PRESS.]

"NO NORTH, NO SOUTH."—The L. A. *Times* of the 26th ult. avers positively that Ralph Rogers, one of the most energetic and successful real estate men of Los Angeles, with other capitalists, including men in the North and East, have bonded about 50,000 acres of land in Butte county and are going to lay out a big town 12 miles from the main line of the C. P., whose magnates have promised them a branch road. The tract runs down to the main line. Water is abundant, and will be piped all over the land, which will be sold, with water, at $60 to $100 an acre. The *Times* adds: "It is well known that the best oranges the N. C. B. can produce are grown in the vicinity of Oroville, Butte county, and Mr. Rogers brought down some attractive samples of Oroville's citrus abilities. He goes up again next week to have the tract mapped off and laid out."

JAMES HUTCHISON.—Our columns again contain the advertisement of James Hutchison, the veteran nurseryman and florist of Oakland, who has seen the city grow up around his establishment, and has returned the favor by his own efforts to build up the city. Mr. Hutchison's floral and seed depot, opposite the City Hall in Oakland, is centrally located, and it is reported that he proposes to build a new block upon his site there. As a member of the California Nursery Co., he has taken part in building up our greatest establishment of its kind. Though Mr. Hutchison's long service would entitle him to a rest, he goes right forward with all his old-time vigor.

JAPANESE PLANTS.—A. Chabot, of Oakland, has in his gardens bearing Mandarin orange trees imported from Japan. He has also successfully raised tea plants, and says that tea plants can be profitably cultivated in this State. He has grown from seed 1,000,000 camphor trees, which grow to perfection in some parts of California.

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Delay
is
Dangerous
PERRY DAVIS'
PAIN KILLER
will quickly cure
Diphtheria Quinsy,
Coughs, Colds,
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THE H. H. H. Horse Liniment puts new life into the Antiquated Horse! For the last 14 years the H. H. H. Horse Liniment has been the leading remedy among Farmers and Stockmen for the cure of Sprains, Bruises, Stiff Joints, Spavins, Windgalls, Sore Shoulders, etc., and for Family Use is without an equal for Rheumatism, Neuralgia, Aches, Pains, Bruises, Cuts and Sprains of all characters. The H. H. H. Liniment has many imitations, and we caution the Public to see that the Trade Mark "H. H. H." is on every Bottle before purchasing. For sale everywhere for 50 cents and $1.00 per Bottle.

For Sale by all Druggists.

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Of small cost, useful and attractive for daily home use:

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A pocket musical lexicon.....15c

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All the words, descriptions, and the best airs.

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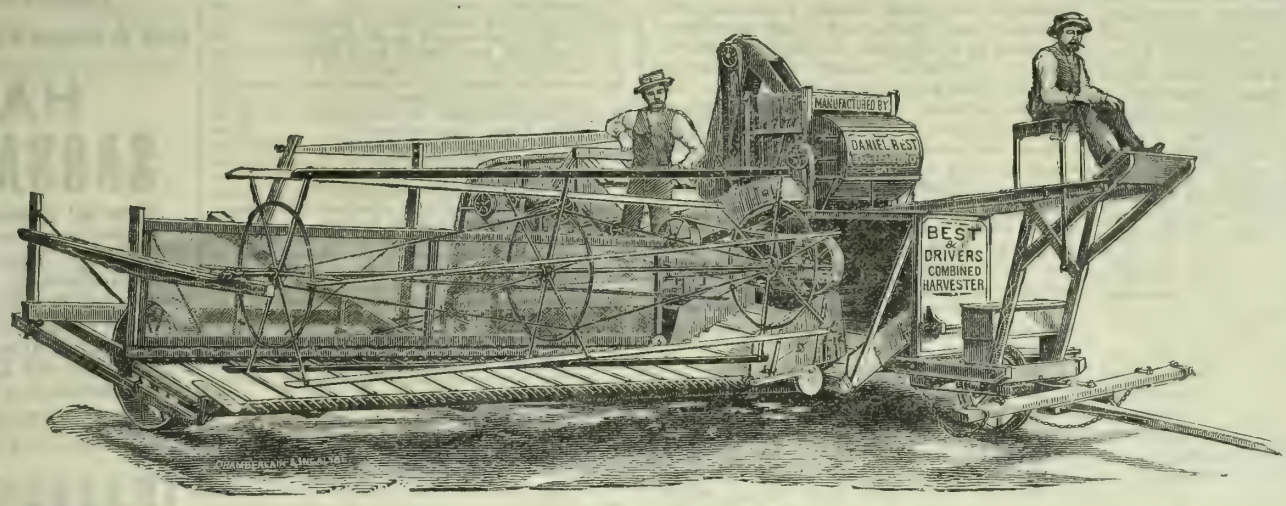
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14 Feet.

Will make any size that is ordered.



Belt

—AND—

Geared.

The BEST & DRIVER IMPROVED Combined Harvester, without doubt, will be the Leading Machine this season, is the verdict of all those who have inspected it.

IT HAS VALUABLE IMPROVEMENTS THAT ARE NOT FOUND IN ANY OTHER COMBINED HARVESTER MANUFACTURED. SPACE WILL NOT ALLOW US TO ENUMERATE HERE; AN INSPECTION OF THE MACHINE WILL CONVINCE YOU.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvesting expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** attached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, so that they will not fall to pieces under a hot sun.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly clean the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

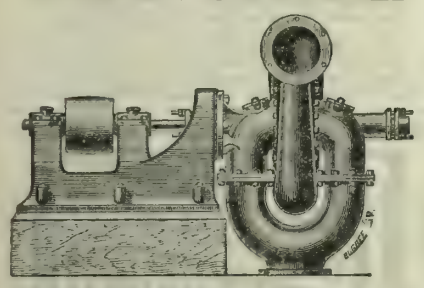
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Selling **LEWIS'S COMBINATION HAND FORCE PUMPS.** It makes 3 complete machines. I have agents all over the U. S. who are making $10 to $30 per day selling these pumps. I give their name and address in catalogue. *To introduce it I will send a sample pump, express paid, to any express station in the U. S. for* **$5.50.** Made of brass; will throw water from 50 to 60 feet, and retails for only $6. Indispensable for spraying fruit trees. **The Potato Bug Attachment** is a wonderful invention. They sell rapidly. AGENTS WANTED EVERYWHERE. Send at once for illustrated catalogue, price list and terms. **GOODS GUARANTEED AS REPRESENTED OR MONEY REFUNDED.** Address **P. C. LEWIS, Catskill, New York.**



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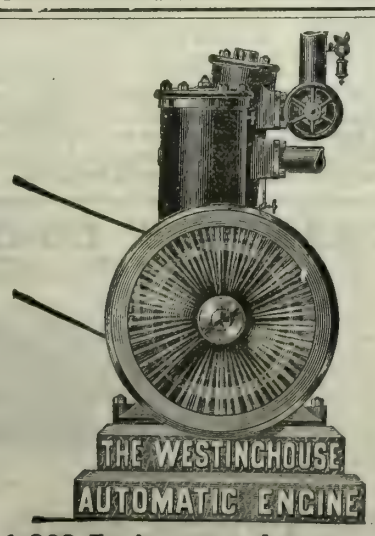
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I have a positive remedy for the above disease; by its use thousands of cases of the worst kind and of long standing have been cured. Indeed, so strong is my faith in its efficacy that I will send TWO BOTTLES FREE, together with a VALUABLE TREATISE on this disease, to any sufferer. Give express & P. O. address, DR. T. A. SLOCUM, 181 Pearl St. N. Y



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Patented July 21, 1885, May 18, 1886, August 3, 1886. The only practical machine in use that makes the fence in the field wherever wanted; makes the best, strongest, and most durable fence for general use and farm and stock purposes; weaves any size picket and any size wire. The fence will turn all stock without injury to same. For catalogue and full particulars, address

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Everybody should have it.

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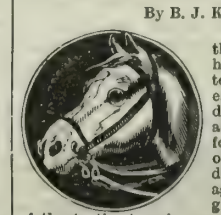
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35 Fine Engravings showing the positions and actions of sick horses Gives the cause, symptoms and best treatment of diseases. Has a table giving the doses, effects and antidotes of all the principal medicines used for the horse, and a few pages on the action and uses of medicines. Rules for telling the age of a horse, with a fine engraving showing the appearance of the teeth at each year. It is printed on fine paper and has nearly 100 pages, 7½x5 inches. Price, only 25 cents, or five for $1, on receipt of which we will send by mail to any address. **DEWEY & CO.,**

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In Los Angeles and San Bernardino.

A Missouri gentleman, writing home from Pomona on New Year's day, gives a charming bird's-eye view of the south country and its thriving. He says:

The climate here now is similar to that of a dry June in Missouri. We have all the new vegetables. Flowers are in full bloom, and fruits of rare kinds are abundant everywhere. So you may infer that this is the Promised Land.

The country is full of visitors seeking health and pleasure, and nearly all the invalids claim to be benefited, more or less. Some are entirely cured. I think the climate is especially adapted to relieve from lung troubles.

I have never seen such a boom as there is in Southern California. The hotels and private houses are full everywhere, and many are going from place to place looking for lodging room, and still they come. We have information that the largest excursion yet is on the way. When we came out there were three trains of 600 persons that belonged to one excursion, and many have come on different roads since, until it looks like there is no room for more.

We arrived in Los Angeles two weeks ago, spent several days there and at Pasadena, and then came to this place. Have just returned from a big carriage drive around the valley, of 85 miles, taking in the towns of Riverside, Colton, San Bernardino, Cucamonga and Ontario, which embraces the large orange belt of Southern California. There is a seven-mile double drive at Riverside, with evergreens, rare plants and flowers on either side and in the middle, and orange groves and fine residences all the way. Another at Ontario is seven miles long, built in the same way and just as pretty, but not so old.

Lands are very high here; unimproved orange land, with water privileges, sells at from $100 to $200 per acre, and improved land from $200 to $1000 an acre. This appears high at a glance, but when we know that the oranges on some of these orchards will bring $400 to $500 per acre, it does not seem so much out of the way.

The Stockton Pavilion.

From the action of the Stockton City Council last Monday night, it seems probable that the petitions in favor of giving the Agricultural Association the use of Washington square for a pavilion site will be granted.

James H. Budd made a plea in behalf of the petitioners, stating that, as a lawyer, he had no doubt of the Council's power to lease the square for a term of years for the public uses mentioned, and presented written opinions of Judge Terry, P. W. Bennett, Judge Booker and others to the same effect.

City Attorney Smith differed with Mr. Budd on some points, but not in the conclusion reached. He believed that if the Council granted the use of the square for 15 or 20 years for a public purpose, it would not be an abandonment and the property would not revert to the Weber heirs.

After further discussion, the motions carried at a previous meeting, refusing to lease Washington square and offering Independence square, were reconsidered, and the subject was referred to a committee of five, consisting of Councilmen Doyle, Henderson and White, the Mayor and the City Attorney, who are to confer with the committee of the association and report at the next meeting of the Council.

CHICAGO AS A GRAIN MART.—The fact that receipts of wheat at Chicago this season have declined, and that what it has lost in this direction has been gained largely by Minneapolis and Duluth, has stirred up newspapers as well as members of the grain trade in the Northwest. It is noted, too, that the chief grain inspectors at Chicago and a committee of the Chicago Board of Trade have been examining the methods of handling grain at the Northwestern cities named, presumably with the intention of improving their own when they get home again. It is alleged that Chicago has thus far graded wheat which was not quite clean, quite low, against the merits of the grain, and that from this practice the opportunity to buy good wheat cheap and clean it (say at Milwaukee, after paying extra carriage) has given rise to a regular business in that line at the cost of consignors. Meanwhile the practice is working its own cure, and Chicago is surprised to realize that Minneapolis, St. Paul and Duluth grade wheat subject to cleaning, that the elevators are all fitted with cleaning apparatus, and that a State weighing law, are among a few reasons why Chicago's long supremacy as a grain market has begun to show signs of a decline.—*Bradstreets.*

SONOMA COUNTY CITRUS FAIR.—Messrs. Adams, Davis, Grosse, Roberts and Rogers, to whom was referred the matter of holding a citrus fair at Santa Rosa, having satisfied themselves that the citrus productions of the county are in their best condition for display about the 10th of January, and that it is now too late for such display for the season of 1887, recently

Resolved, That all persons in Sonoma county who grow any citrus products be, and they are hereby, requested to prepare the same for the "Santa Rosa Citrus Fair of 1888;"

Voted thanks to all who have aided and encouraged their efforts, and adjourned *sine die*.

WHEAT CULTURE IN ENGLAND.—The acreage devoted to wheat-growing in England and Wales decreased more than seven per cent last year, and the total yield was diminished by 2,173,451 bushels. Within the past 15 years the wheat acreage of Great Britain has been reduced from 4,000,000 to less than 2,500,000 acres, and the prospect is that the diminution will continue. The enormous increase of production in the United States, Australia, India and other countries has so lowered the price of the cereal as to deprive the English agriculturist of the profit he formerly enjoyed, and has compelled him to devote the land to other uses than the cultivation of wheat. In the opinion of Prof. Thorold Rodgers, "It is idle to anticipate any notable rise in this article. The wheat growing area of British India is reported to be nearly 28,000,000 of acres, and this area is likely to increase. That of Australia is capable of almost indefinite extension. Now, according to American returns, the United States area in 1884 was 39,500,000 acres. It is almost superfluous to state that in countries subject to periodical droughts, wheat is the safest crop on which the cultivator can depend, and is certainly the most merchantable."

THE GRAPE GROWERS' CONVENTION.—Preparations for the grape-growers' convention in this city, on March 7th and succeeding days, are progressing. As Mr. Thorne has offered the use of Music hall, Grand hotel, it is probable that the convention will be held there. It has been decided to use the mornings and part of the afternoon in tasting wines, and the remainder of the afternoon, with the whole of the evening, to literary exercises, the reading of papers and the discussion of their contents.

CITRUS SHOW IN OAKLAND.—The Oakland *Times* has recently had a little local citrus fair at its business office. The fruits on exhibition, gathered mostly from the foothills back of the city, included oranges and lemons from Mission San Jose, Warm Springs, Temescal and Alameda, Japanese persimmons, and olives. The lemons were spoken of as particularly fine; and the seedling oranges, from 15-year-old trees at L. Stone's place near San Leandro, were large, sweet, and of high market value.

GOOD WORDS FROM AFAR.—The *Religious Telescope*, of Dayton, Ohio—a paper which has been established over half a century—made this friendly and appreciative mention: The PACIFIC RURAL PRESS, published at San Francisco, Cal., is a valuable agricultural paper, devoted to the interests of the golden coast. Persons desiring reliable information in reference to the soil, products, etc., of the Pacific Coast could hardly do better than subscribe for the RURAL PRESS.

SCRIBNER'S MAGAZINE.—It is pleasant to see the name Scribner again attached to a first-class magazine, and the reading of the first two numbers of their new periodical assures us of its excellence. They have also made a departure in fixing the price at $3 per year, instead of $4, as held by the old standards. Single copies are sent for 25 cents, and all literature lovers should see it. Charles Scribner's Sons, New York city, is the address.

IN THE U. S. Senate on the 11th inst. Senator Stanford presented petitions from the S. F. Chamber of Commerce, asking for a branch hydrographic office in this city, urging Congress to provide for harbor defenses, and protesting against the reduction of the duty on raisins.

Books for the Household.

We desire to give our readers every advantage in obtaining useful books at the most favorable rates attainable. We offer below a number which we believe will be found acceptable to many readers of the RURAL, and the reduced prices at which we can furnish them to our cash-in-advance subscribers—POSTPAID—will place them within the reach of many.

WHAT EVERY ONE SHOULD KNOW.—A Cyclopedia of practical information. Gives full directions for making and doing over 5000 things necessary in business, the shop, the farm, the kitchen and the home. Recipes, prescriptions, trade secrets, law, art work, agriculture, etc. Compiled from the most reliable sources and alphabetically arranged by S. H. Burt. 510 pages, cloth. Postpaid 50 cents. Regular price, $1.

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[*From the Baltimore American.*]

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Warehouse as heretofore, at corner Fifth and Bluxome Sts.

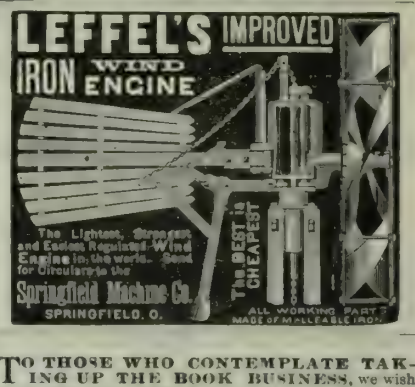
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At Reduced Rates, on Sums not less than $5000,
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Blank Forms of Application furnished.

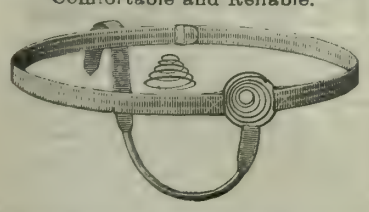
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The WEST COAST LAND COMPANY now offering in subdivisions the

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

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Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

All lying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

Will sell

AT PUBLIC AUCTION

About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch,** consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

2100 acres of the **Huer Huero Ranch** in 20 subdivisions.

These are all agricultural and fruit lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara county, and require

NO IRRIGATION.

Title, U. S. Patent and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments, at 2, 3, 4 and 5 years; interest 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.
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Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

SALE WITHOUT RESERVE,

Providing that no bid will be entertained at less than 60 per cent of schedule prices.
Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.
Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo. From San Francisco, take 8:30 A. M. daily train, S. P. R. R., to Templeton.

Parties wishing to inspect said lands with a view to purchasing at the Auction, or any of the Company's Land at private sale, will be shown the property free of charge by applying at the Company's office in Templeton.

Maps of all the ranch subdivisions, of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands with a new descriptive catalogue are in press and will be sent free on application after the 25th inst. (February, 1887.)
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FAMOUS
ENTERPRISE
Self-Regulating
WINDMILL
Is recognized as THE BEST.



Always gives satisfaction. SIMPLE, STRONG and DURABLE in all parts. Solid Wrought-iron Crank Shaft with DOUBLE BEARINGS for the Crank to work in, all turned and run in adjustable babbitted boxes.

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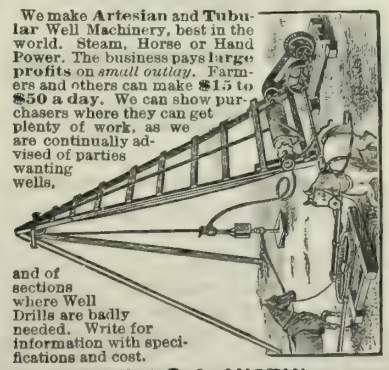
With no co springs, or springs o any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills etc., kept in stock. Address,

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Preliminary Drawings and Estimates furnished gratuitously. Plans and Specifications prepared with accuracy. No. 6 Eddy Street, S. F.

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Lands For Sale and To Let.

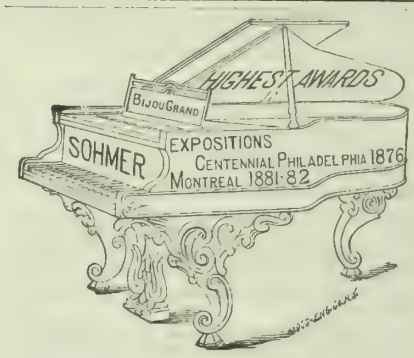
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BYRON MAUZY,
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Send to us for Samples of our
PAPER BUTTER CLOTH
And Try It.

It is Impervious to Water, Brine, or Oil, and Butter wrapped in it will preserve its freshness a much longer time.

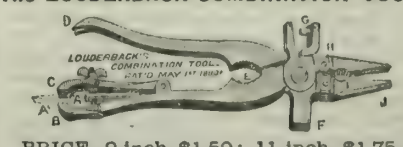
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PUBLIC AFFAIRS.

Lottery Robbery and Jobbery.

The RURAL PRESS has again and again pronounced its verdict on the swindling thieves who run lotteries and other gambling traps, and has given its opinion of the journalistic bunko-steerers who are their bribed abettors. But so long as these infamous practices are kept up and tolerated in the community, so long it is the duty of the faithful journalist to keep speaking. We rejoice, therefore, in the following vigorous leader from the *Record-Union* of Jan. 24th, whose editors and publishers show "the courage of their convictions":

There is no more vicious gambling than that of the lottery, and none that is more deceptive and demoralizing than the much-advertised Louisiana. Yet, we find this week California journals, for coin, defying the law and devoting two and three columns to elaborate descriptions of the "drawings" of this method of fleecing the people, and of accounts of the results of the drawings. These descriptions, which are nothing more nor less than advertising tricks, and therefore plainly in violation of the laws of the State, labor in detail to prove that the "drawings" are "honestly" conducted, as if that in any respect lessens their viciousness. The truth is, however, that the lottery cannot be "honestly" drawn, so long as the lottery concern has not received from every quarter full returns of all tickets sold. Yet it is a fact that the drawings take place irrespective of these returns, thus assuming that all the tickets are sold, or else the concern running the lottery is more than foolish in publishing its lists before the tickets are turned in, for all unsold tickets it would, of course, draw in its own behalf. But the dupes of this lowest form of gaming continue to be gulled, and do not pause to reflect upon the fact that there must be a marvelously heavy percentage against them to justify the extraordinary outlay made in advertising the scheme so widely and in such various ways.

There ought to be action at this session of the Legislature in the direction contemplated by the Constitution and the present law, to choke off the methods of advertising the lottery managers now adopt to evade the statute. For instance, Section 322 of the Penal Code reads: "Every person who aids or assists, either by *printing, writing, advertising, publishing or otherwise* in setting up, managing or drawing any lottery, or in selling or disposing of any ticket, chance or share therein, is guilty of a misdemeanor."

Now, since the newspapers which advertise the lottery referred to claim that publishing an advertisement or "a reading account" of the "result" of a drawing is not "advertising" the lottery or aiding in the sale of tickets, let some legislator who has not the fear of the lottery ring before his eyes propose an amendment to include any form of publication of the results, manner or methods, figures, numbers or devices of drawings, of any form or recital of the methods of drawings, or any accounts alleged to be narratives of the "luck" of ticket-holders, etc. Those who advertise the schemes, no matter how they "whip the devil around the stump," violate the law as it is; but remove utterly every shadow of excuse, let the law be amended to cover it, as suggested, and then let it be seen whether prosecuting officials have the hardihood to refuse to enforce the law, and the Legislature the courage to compel them to pursue the offenders.

The Constitution, Article IV, Section 26, declares that "the Legislature shall pass laws to prohibit the sale in this State of lottery or gift enterprise tickets, or tickets in any scheme in the nature of a lottery." It is, therefore, the sworn duty of the legislators to see that the spirit of the Constitution is given full effect in the law, and to that end they should pass laws to prohibit, under severer penalties than now attach, any manner of advertising aid given to the sale of lottery tickets.

There is not one of the San Francisco journals reaping such large rewards from lottery advertising, that has the courage to defend the practice, or that will advise the people to throw their money into the maw of the lottery monster. There is not among them all a single journal that will editorially indorse the lottery, or countenance their employes in investing in it, or that has the hardihood to oppose such amendment to the law as to remove any possible doubt as to what constitutes "lottery advertising." Some hundreds of thousands of dollars annually are "raked in" in this State by lottery swindles, and thousands of poor dupes rob their families of the necessities and comforts of life, in order to indulge the fatal appetite for this form of gambling. The commonest considerations of humanity demand that, so far as it is possible for the law to do it, the means of gratifying this appetite be removed, and one of the first steps in this direction is to prohibit any and every form of advertising the "schemes," and to make the inhibition so explicit that not even the San Francisco press will be able to evade the law, nor the prosecuting attorneys of the State put in peril their offices, by neglecting to bring to punishment every offender.

We call the attention of the legislative Committees on Public Morals to the need for clearer laws upon this subject, and to such mandatory orders from the statute-book as will secure their enforcement.

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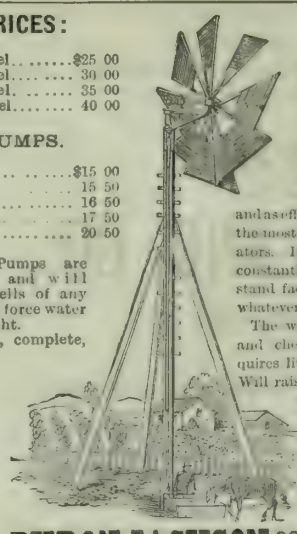
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2½-Inch.....15 50
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These Pumps are complete and will work in wells of any depth and force water to any hight.

TOWER, complete, $15 00.



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Is the cheapest ever offered to the trade, and as efficient and durable as the most elaborate self-regulators. It is intended to run constantly, and turns on the stand facing the wind, from whatever direction.

The wearing parts are few and cheaply replaced. Requires little or no attention. Will raise 25 per cent. more water than any "self-regulator" of same diameter of wheel. Any one can put it up.

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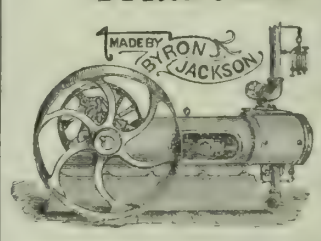


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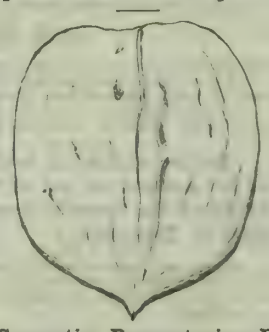
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J. B. J. PORTAL,
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P. O. Box 2. Napa City, Cal.

GUAVAS.

Large stock; fine plants; for the season of 1886-87. Address

T. J. SWAYNE, National City or San Diego.

Seeds, Etc., Continued on Page 162.

Central California Citrus Fair.

(*Continued from Page 150.*)

28 pounds of pitted silver prunes, dried. Of his Muir peaches, unpeeled, five pounds of green make one of dried fruit. Of his Bilyeus peaches, peeled, five pounds of green will make one pound of dried. He shows some excellent dried apricots and cherries also. His place is located in the Willows district.

Mr. A. N. Van Fleet, of Saratoga, presents a variety of fruits. From the Fair View Farm evaporating establishment he brings several cases of French and silver prunes. His oranges are Mediterranean Sweets and seedlings. His Sicily lemons are of large size and excellent flavor. He does not irrigate his orchard. His English walnuts are from trees that began to bear at the age of seven years.

T. C. Walter Evaporator.

Messrs. Van Fleet and Alex. Hildebrand manufacture the T. C. Walter evaporator, and are the proprietors for Santa Clara county. The advantages claimed for this drier, of which they have a model at the fair, are economy of labor and fuel, capacity of production and absorption, and condensation of moisture within itself. The fruit is placed in a revolving wheel, which is turned as occasion requires, carrying the fruit into the hot atmosphere which converts the saccharine matter into a jelly. Mr. Van Fleet says that it saves from 10 to 15 per cent of weight over any other process. The capacity is from 2½ to 10 tons per day. The cost is from $400 to $2000. During last season Mr. Van Fleet prepared over 200 tons of dried fruit, consisting of apricots, peaches and French and silver prunes, which brought from 10 to 30 cents per pound in the San Francisco market, one firm taking seven carloads.

Capt. W. Warren, of Saratoga, shows some French prunes ranging from 35 to 40, and from 45 to 50 to the pound. His silver prunes have the appearance of being crystallized. His dried peaches are of good quality. His fruits are put up in neat boxes containing 10, 25 and 50 pounds. His prunes appear to be the largest in the fair. He has 50 acres in prunes, 40 acres in vines and 30 acres in hay. He disposes of his fruit yearly, to advantage, in San Francisco. Capt. Warren is treasurer of the Los Gatos and Saratoga Wine and Fruit Company, which made 85,000 gallons of wine last year.

Noteworthy Exhibits.

W. H. Brundage, beside the fruits mentioned in your last issue, shows citrons 18 inches long by nine inches in diameter. The very large oranges which your correspondent referred to as Chinese, are not Chinese at all, but an ordinary variety. The longer his lemons stay on the tree, the thinner the skin becomes.

From one tree on Dr. Mintie's place, of which Mr. Brundage has charge, he shows lemons of all sizes, from the smallest green ones to the ripe fruit. During the present storm, supports were needed to keep the tree from breaking down. The number now on it is estimated at 1200, and as many ripe lemons have been plucked from it in a single year.

Cuthbert raspberries, raised in the open air at Los Gatos, are shown by M. S. Boudich.

Well-cured raisins are brought from C. F. Holcomb's vineyard near Evergreen.

J. P. Bubb, from three miles north of Saratoga, shows two boxes of oranges and a basket of tomatoes from green to ripe.

Mrs. H. H. Headen, of Santa Clara, contributes fine-looking English walnuts and sound Muscat grapes.

Mrs. P. G. Keith, of Campbell's station, displays olives, ripe persimmons, papershell and Languedoc almonds, English walnuts and oranges.

James McWilliams, of Saratoga, exhibits two pyramids of oranges, some big lemons, and large English walnuts.

Dr. Geo. W. Handy brings, from his "Glen Una Ranch," several boxes of oranges and of lemons.

N. E. Beckwith, of Los Gatos, furnishes Washington Navel orange trees, brakes seven feet high, and a growing Solanum Melongena, bearing its fruit commonly called the melon pear.

A handsome showing of oranges grown on trees taken from the nursery and set out a year ago last May, is made by J. J. Groom, of Los Gatos.

D. D. Holland, of Los Gatos, has oranges arranged in the form of a five-pointed star, in the center of which is a lemon four by two and one-half inches.

Mrs. E. L. Watson, of Lincoln district, shows a cluster of 15 oranges.

The Catholic Fathers have a beautiful exhibit oranges and lemons from their grove at Los Gatos.

C. Yocco, of Los Gatos, shows fine oranges, lemons and limes, a curious model of an Indian canoe, hewn out of wood, being loaded with these fruits.

Mrs. S. T. Ingalls, of the Willows, makes a fine show of fruit canned by herself. Her peaches are late clings; her apricots, Moorparks; her cherries, Napoleon, Bigarreau and Black Tartarian. The Bartlett pears are luscious. The late Crawfords, which are very large, came from a tree that produced $14 worth the past season. Her English walnut trees bear abundantly and the nuts are sweet. The jellies—strawberry, raspberry, currant and rhubarb—are beautifully clear and inviting to the taste. Her large dried prunes come from trees 11 years old, the orchard being one of the largest old orchards in the county. Its prune crop the past season amounted to 70 tons. The water for irrigating it is raised from wells by a steam engine.

A glass case of bird eggs has been placed in the fair by Master George Ingalls, age 10 years. Most of the eggs came from the Willows, but a few were obtained from the sea coast and from the East.

Paintings.

A. P. Hill, whose work is becoming famous, exhibits an oil painting of a bouquet of lilacs standing in a glass pitcher, through which the stems and water show very prettily. The lilacs are delicately drawn with all their lights and shades. Growing around the stand which supports the pitcher, is a leafy snowball bush, admirably delineated.

Mrs. J. E. Brown's picture of many-hued peonies transports the beholder, in imagination, to a real flower garden.

Alameda County.

Juan Gallegos, of Mission San Jose, has a charming exhibit. His olive oil is as clear as water. His pickled olives have a look superior to the imported. His oranges are handsome, and his lemons uncommonly large.

H. Curtner, of Warm Springs, makes a large display of Sicily Seedling and Dresser Seedling lemons and Mediterranean Sweet oranges.

The Pneumatic Evaporator Co., of Alameda, exhibits a working model of a novel invention for curing fruits, adaptable in cost and capacity to every class of orchard, small or large, and for factories of any magnitude.

The furnace consists of a chamber some 40 feet in length by 4½ feet wide, inclosed by brick walls. In each end of this is a fire-box. From each fire-box three seven-inch pipes pass the entire length of the chamber and return, discharging the products of combustion into transverse drums, connected with smokestack; thus facilitating a uniform distribution of heat throughout the chamber. By the use of dampers and ventilators, the air currents which are admitted through apertures at the base of the brick walls are easily kept at any desired temperature.

The evaporator is simply another story, resting on top of the furnace walls. This is divided into compartments 3x4½ feet. In each compartment is a fruit-tray elevator, carrying 16 fruit-trays. These elevators are a novel, durable and ingenious device, which can be operated by a child. The trays are not lifted or handled after being filled with fruit, but rest upon a carriage, from which a slight pressure with the hand moves them into their respective compartments, through feed-doors; after which they are moved upward in their order by the elevators, at regular intervals, being removed further from the radiating pipes, as the loss of moisture renders the fruit more susceptible of damage by heat; and reaching the top when the fruit is dry and ready for removal through discharge-doors. It is claimed that the escape of moisture from the fresh fruit below prevents the formation of a dry crust on the partially dry fruit above, by which the escape of its interior moisture would be impeded.

Paul O. Burns Wine Co.

The first attraction at the right of the entrance is the exhibit of the Paul O. Burns Wine Co., occupying a floor space 32x24 feet, at each corner of which is a puncheon set on end, supporting a cone of bottles. The space is inclosed by lines of 5 and 10-gallon casks, lying upon their sides. In the center is a 600-gallon cask, upheld by a framework entirely hidden by bottles. The following information regarding the company has been furnished us:

The officers are Adolph Pfister, Pres.; Jacob Rich, V. Pres.; S. W. Boring, Sec'y; P. O. Burns, Manager. The capital stock is soon to be raised from $150,000 to $500,000. The vineyard, known as the Yerba Buena Vineyard, is beautifully located in the foothills, eight miles east of San Jose, at an elevation of 1000 feet above the valley.

The following varieties are on exhibition:

Red Wines—St. Inez, Burgundy, Zinfandel, Ordinary Claret.

White Wines—Gutedel, Chasselas, Riesling, Hock, Sauternes.

Sweet Wines—Sweet Port, Dry Port, Angelica, Yerba Buena, Madeira, Malaga, Mountain Wine, Muscatel, Sweet Sherry, Dry Sherry, Tokay.

Brandies—Grape, Cognac, vintage of '82 to '83, '80 to '81, and '78 to '79; pure Blackberry.

The St. Inez wine, the name of which was not borrowed from another wine to give it a reputation, but called after Mr. Burns' daughter, is a blend of three different clarets; one to give tannin, or color; another to give body; and the third to give character, or bouquet. This wine is gaining a wide reputation.

Wm. Hudson, the famous London wine expert, having examined Burgundy claret, pronounced it far superior to Australian and French wines which he was testing at the same time. He stated that he could dispose of this wine in large quantities, and overtures to place the company's wines on the London wholesale market have been received from three English firms, but declined for the reason that they all find ready market in the United States.

Santa Clara county wines generally are said to be growing in favor on account of their delicate flavor and superior tannin, or color, qualities which render them a valuable blend for the products of less fortunate sections. This superiority is partly due to the fact that a sufficiency and not an overplus of moisture falls in this county, and that the temperature not being excessive, the wine does not part with its saccharine properties, as in hotter countries.

The company's brandies are all made from wine produced from the grape, and not from the pomace, which gives it a rank taste. Pure brandy only, or cognac, as the French call it, is made by this company.

The proprietor of the Occidental hotel in S. F. has placed their Burgundy on his wine-list at the low price of 25 cents per pint, for the purpose of convincing European and Eastern guests of the superiority and purity of California wines.

Orders are received from families in the Eastern States to send large quantities of wines direct from the vineyard, some having been deceived in the East by unscrupulous persons who have sold vile French decoctions for pure California grape wine.

This company made 17,000 or 18,000 gallons the past year. The storage capacity will be increased to 1,000,000 gallons within six months.

The cork, which bears their stamp, being covered with a capsule having the firm's name in raised letters and secured by a wire netting covering the bottle and fastened at the bottom with a stamped lead seal, the genuineness of the bottling is guaranteed.

The labels, designed at great expense, were adopted as a protection against fraud, and represent California scenery as follows: San Francisco and S. F. Bay; bird's-eye view of Santa Clara and Santa Cruz counties, with a section of the Pacific ocean; Yosemite Falls; Mount Hamilton and Lick Observatory, with part of Big Trees; view of Yerba Buena vineyard at a distance; interior view of the company's main cellar, showing casks; the Geysers. On the corner of every label is a design of the Yerba Buena vineyard.

With one exception, everything connected with this company's products is Californian, even to the packing material, which is the tule, the well-known flag that grows along our rivers.

The cooperage is all made at the winery or at the vineyard from oak imported principally from Michigan in carload lots. From four to six coopers are employed in making casks and puncheons for shipment East and to South America, where the company has an extensive trade through the house of the John S. Cutting Co., of S. F.

The object of the Paul O. Burns Co. in doing their own cooperage is to secure well-seasoned oak, as new, sappy wood would affect the wine more or less. Being under their own supervision, the casks are thoroughly cleaned with hot water, to remove any impurities or bad odor that might affect their contents. In the cellar on Seventh St., San Jose, there are 20 casks that hold 2300 gallons and 10 that hold 3400 gallons.

The company employs one agent to solicit patronage on the Pacific Coast, and six to travel in the East. There is a large trade with Illinois, Wisconsin, Pennsylvania, New York, Louisiana, Texas, Minnesota, Dakota, Nebraska and Colorado, as well as on this coast.

Mr. G. W. Sill, of Pajaro valley, makes a beautiful display of White Winter Pearmains and Newtown pippins. M. Pace shows a plate of Swaar and Oregon Red-Streak apples. L. Martinelli, excellent Red Winter Pearmains, remarkably well-kept Bellflowers and Newtown pippins. G. L. Kellogg shows large and fine Smith's Cider apples. Thomas Leland, good smooth Winesaps and plates of Nonsuch and Leland's Favorite.

James Waters shows fine Beurre Hardy pears. James Rogers, the Vicar of Winkfield, four inches in diameter.

Combined Harvesters.

The abundant rains and the surety of crops over nearly the whole wheat area of the State, will make the subject of cheap harvesting of much interest. Since margins have become so narrow in wheat because of sharp competition between supply regions, the reduction of cost of production has become the key to success, and fortunately California, by the aid of her patient and skillful inventors, has possessed herself of harvesting machinery than which the world cannot show better. The combined harvesters came just in time to help California out of a very close corner in the wheat competition. This year there will probably be many more of these machines put in the field. We are often asked about these machines, and reply that we have good reports of several of them and are unable, from practical knowledge, to recommend either one as the very best. It is probably a safe proposition to say that the Houser machine, made by the Stockton Combined Harvester and Agricultural Works, is an old standby and has fully demonstrated its worth. It speaks well for a machine when it gets the good opinion of such a man as Isaac Ripperdan, of Modesto, and he says that his Houser machine after running five years before went through the season of 1886 with an expenditure of only $20 for repairs.

The Frost Bell.

EDITORS PRESS:—Can you tell me, through your valuable paper, where I can procure a "Frost Bell"? Have seen a notice of it in the PRESS, but no information as to where they can be procured. If you can give me the information you will oblige an old subscriber.—W. G. YOUNG, *Kelseyville.*

The frost bell is said to be an English invention introduced by J. H. Drummond, of Glen Ellen, Sonoma county, who can perhaps give information about them. They should be advertised in the RURAL.—EDS. PRESS.

ROSA BONHEUR, MUSTANGS, AND PERCHERONS.—The *Herald's* cable tells of M. W. Dunham lately presenting Rosa Bonheur with three wild American mustangs, which she has turned loose on her cattle farm near Fontainebleau. They are in fine condition, kicking and plunging about in high spirits, and the dispatch adds that she is perfectly delighted with them, and intends using them as models. In return she presented Mr. Dunham with three portraits of splendid Percheron stallions, selected by herself from a number which he had purchased. The Percheron horses this year are said to be numerous, and in quality as fine, if not finer, than hitherto.

Rural Seed Offering—1886.

Great Inducements for New Subscriptions.

To encourage gardening and further extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers the following seeds on the favorable terms named below:

VEGETABLE SEEDS.
83 Varieties.

In Papers, postpaid.	Cts
BEET.	
1 Early Blood Turnip	10
2 Early Extra Bassano	10
3 White Sugar	10
4 Yellow Sugar	10
5 Early Long Dark Blo'd	10
CABBAGE.	
6 Early York	5
7 Early Dutch	10
8 Early Wakefield	10
9 Ex'a Fine Large Dutch	10
10 Early French Oxheart	10
11 Large Late Drumhead	10
12 Red Dutch (pickling)	10
CELERY.	
13 White Solid	10
CAULIFLOWER.	
14 Early Paris	10
CARROT.	
15 Extra Early Forcing	10
16 Long Orange	10
17 Early Horn	5
18 White Belgian	5
CUCUMBER.	
19 White Spine	10
20 Early Cluster	10
21 Early Frame	5
22 Long Green	5
23 Eng. Gherkin, Pickles	10
LETTUCE.	
24 Early Curled Silesia	10
25 Ice Drumhead	5
26 Simpson's Early Curl'd	10
27 Prize Head	10
28 White Paris Cos	10
29 Hanson	10
30 Boston Market	10
MELONS.	
31 Large Yel. Canteloupe	10
32 Extra Fine Nutmeg	10
33 Casaba (new)	10
34 Cuban Queen W'melon	10
35 Mt. Sweet Watermelon	10
36 Iron Clad Watermelon	10
37 Scaly Bark do	10
38 Black Spanish do	10
39 White Imp. or Lodi do	10
ONION.	
40 Early Red	10
41 Red Wethersfield	10
42 Yellow Danvers	10
44 W. Portgal or Sil. Skin	10
PARSNIP.	
45 White Dutch	5
46 New Early Round	10
RADISH.	
47 Mammoth California	10
48 Olive Shaped Radish	10
49 Early Scarlet Turnip	5
50 Bl'k Spanish or Wint'r	10
SQUASH.	
51 Early Scollop Bush	5
52 Early Sum. Cr'k Neck	5
53 California Field	10
54 Marblehead	10
55 Boston Marrow Wint'r	10
56 New Hubbard Winter	10
TOMATO.	
57 Large Yellow	10
58 The Conqueror	10
59 Early Red Smooth	10
60 Trophy	10
61 Canada Victor (earli'st)	10
62 Acme	10
TURNIP.	
63 Cow Horn	10
64 Yel. Rutab'a or Sw'd'n	10
65 Early Wh'e Flat Dutch	5
66 Long White French	10
67 Imp. Late Rutabaga	5
SPINACH.	
68 Round Leaf	10
69 Large Flanders	10
PEAS.	
70 Extra Early	10
71 Champion of England	10
72 Yorkshire Hero	10
73 Queen of Dwarfs	10
BEANS.	
82 Black German Wax	10
83 Refugee	10
84 Red Valentine	10
MISCELLANEOUS.	
74 Kohlrabi	10
75 Scotch Kale	10
76 Curled Parsley	5
77 Sage	10
78 Thyme	10
79 Tobacco	25
80 Blue Gum	25
81 Monterey Cypress	25

FLOWER SEEDS.
107 Varieties.

85 Acroclinium	5
86 Alonsoa, Grandiflora	5
87 Alyssum, Sweet	10
88 Amaranthus Abyssin's	15
89 Ageratum Lasseauxii	10
90 Adlumia Cirrhosa	10
91 Ambronia Umbollata	10
92 Amaranthus Caudatus (Love-lies-bleeding)	5
93 Antirrhinum Majus, fine st mixed	5
94 Cacalia Coccinea (Tassel flower)	5
95 Campanula Speculum, (Venus' L'king Glass)	5
96 Candytuft, white frag't	5
97 CentaureaCynus(Bachelor's Button)	5
98 Clarkia, fine mixed	5
99 Convolvulus (Morning Glory) mixed	5
100 Foxglove, mixed	5
101 Gilia, mixed	5
102 Globe Amaranthus	5
103 Gypsophila Elegans	5
104 Ice Plant	5
105 Larkspur, finest mixed	5
106 Linum Grandiff'a(Flax)	5
107 Love-in-a-mist	5
108 Marigold, db lFrench	5
109 Marigold, African, dbl.	5
110 Mignonette, Sweet	5
111 Nasturtium	5
112 Nolana	5
113 Portulaca, mixed	5
114 Poppy, Double, mixed	5
115 Rocket, Sweet	5
116 Scabiosa, Dw'f, mixed	5
117 Sensitive Plant	5
118 Sweet Pea, White	5
119 Sweet Pea, Crimson, Everlasting	10
120 Sweet Peas, mixed	5
121 Sweet William, mixed	5
122 Sunflower, Cal., Dbl'e.	5
123 Adlumia Cirrhosa (Mountain Fringe)	10
124 Althea (Hollyhock) fine mixed	10
125 Aster, China, mixed	10
126 Australian Vine	10
127 Balsam (Lady Slipper) fine mixed	10
128 Balsam, Fine Paris, dbl	15
129 Balsam, Splendid, dbl.	10
130 Balsam, Dwarf, double	25
131 Balsam, Rose Fl'd, dbl	15
132 Balloon Vine	10
133 Browallia Grandiflora	10
134 Canna (Indian Shot)	10
135 Canna, fine mixed var.	10
136 Celosia CristataVarie'a	10
137 Celosia Cristata Purpurea	10
138 Clematis Flammula	15
139 Dahlia Superflua, mxd	25
140 Dianthus Chinensis (Indian Pink)	10
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149 Geranium, fancy colored leaves	25
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153 Indian Pink, dbl., mxd	10
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155 Lobelia, Blue	10
156 Musk Plant	10
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158 Pansy, fine mixed	10
159 Petunia, mixed	10
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169 Campanula Medium (Canterbury Belle)	15
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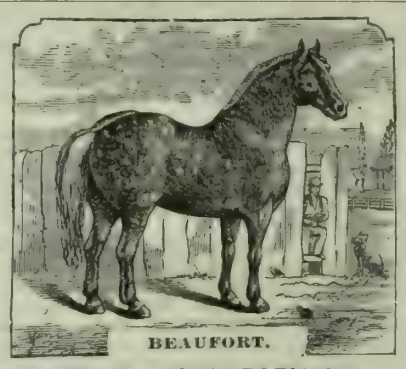
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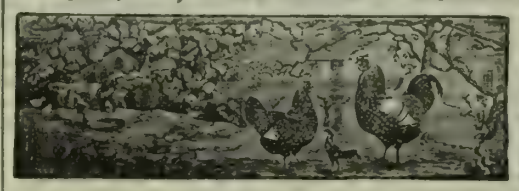
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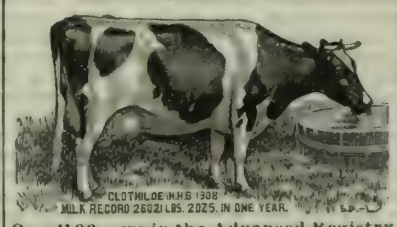
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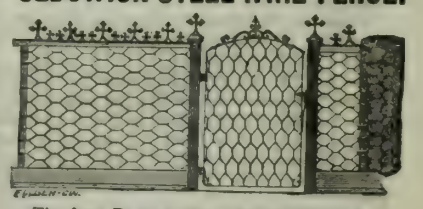
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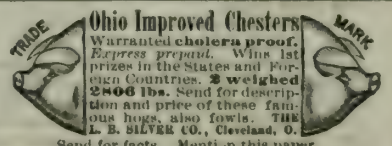


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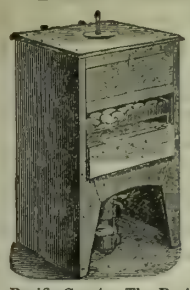
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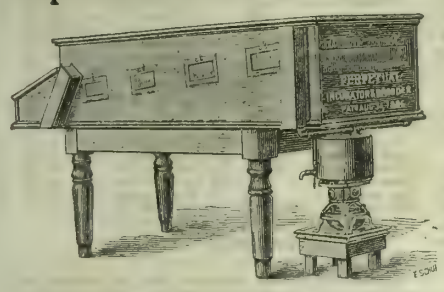


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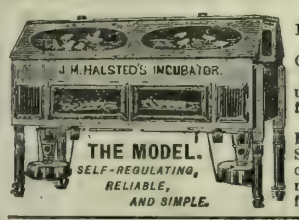
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S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 16, 1887.

The past week was a repetition of the preceding week, although at the close, more trading with an advancing tendency is reported in all lines except spring vegetables. The English wheat market has ruled steady. The following is to-day's cable:

LONDON, February 16.—WHEAT—Quiet but steady. California spot lots, 7s 3d @ 7s 6d; off coast, 36s 3d; just shipped, 37s 9d; nearly due, 36s 3d; cargoes off coast, steady; on passage, firm; Mark Lane Wheat, firm; French country market is firm. Weather in England, frosty.

Foreign Review.

LONDON, Feb. 14.—The *Mark Lane Express* says: Native wheat is improved in its condition and is slightly firmer. The sales of English wheat during the past week were 35,032 quarters at 33s 6d, against 69,722 quarters at 29s 6d for the corresponding week of last year. The official returns of the wheat crop of the United Kingdom for 1886 show an estimated yield of 7,918,418 quarters, against 9,954,471 quarters for 1885. About four-sevenths of the crop remains in the hands of the growers. Foreign wheat is weaker. Flour is irregular and tends downward. At to-day's market, wheat was slow. Sound English sold freely at unchanged prices. Foreign was a shade lower. American flour was irregular and cheaper. Corn was 3d lower. Barley was dull. Oats 3d lower. Peas 6d cheaper. Beans and linseed steady.

New York Wheat Market.

NEW YORK, Feb. 13.—Wheat, the past week, has been weak and irregular, influenced by the break in prices at Chicago in the early part of the week, and unfavorable foreign markets, which have ruled dull, with a downward tendency. Spot closed 1½@3c lower and options heavy, with declines of ¼ to ½c; February, 89½c; March, 90c; April, 91c; May, 92c; June, 92¼c; July, 93½c; August, 94½c; September, 95c.

Crops at the East.

CHICAGO, Feb. 13.—The following summary will be printed in this week's issue of the *Farmers' Review:* Reports as to the condition of winter wheat continue to be generally of a favorable character, with the exception of those from Kansas, where, in the majority of counties, the outlook is regarded as poor. The latest reports were all made prior to the cold wave of Friday night, and the resulting damage to exposed fields, if any, has not yet been fully disclosed. The reports from Illinois, Indiana, and Ohio state that the plant is looking green and tender, but that broad acres are entirely exposed, indicating that the crop would be subjected to a certain amount of peril in the event of freezing weather.

Eastern Wool Markets.

NEW YORK, Feb. 12.—The market has been comparatively dull for all kinds of wool, the sales footing up only 1,997,000 pounds. There has been no material change in prices, but the tone of the market is not quite as strong as formerly, and buyers are getting the advantage. The unfavorable position of woolen goods is the most pronounced element of weakness in the situation. Spring California is in small stock and sales are moderate. The sales of the week included 10,000 pounds of spring California at 21½c; 12,000 Territory at 18½@23c; 6000 scoured Oregon at 58c; 3000 scoured Colorado at 49c.

Another dispatch says California wool finds slow sale and is offered at low prices. The transactions include 25,000 pounds at 15 and 17c. Oregon sales for the week were 130,000 pounds at 17 to 24c.

The Philadelphia market is very quiet. Among the sales were 6000 pounds California fall at 18c; 20,000 New Mexico, part improved, 19c; 20,000 Territory improved at 22½@23c; 2500 Territory fine at 22c; 18,000 Montana medium at 26c. The Boston market is also very quiet.

London Wool Sales.

LONDON, Feb. 14.—At the wool sales the attendance was better. The bidding was maintained and prices are firm. The competition was mostly in Cape of Good Hope and Natal. Thirty-four thousand bales remain unsold.

California Fruit in Chicago.

CHICAGO, Feb. 12.—Really fine, bright shipping oranges are steady, but there are a good many ordinary to fair, and these are easy. Fair California bright Riverside, $2.25@2.75; California Navel oranges, $5.50@5.50 per box. In the dried fruit market, prices rule firm all around. There is a fair demand for all lines, and former prices are obtainable. The arrivals continue small. Apples are the only description of which any consignments are noticed on sale, and there are now many of these. The stocks of other descriptions are centered in "second hands" entirely. Owing to light receipts, the market is necessarily quiet. California varieties steady, and selling moderately at the following prices per pound: Prunes, French, 8½@11½c; plums, pitted, 11@13c; peaches, halves, 12@14c; peaches, halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, per 20-pound boxes, London layers, $1.45@1.50; loose Muscatels, $1.30@1.35.

New York Hop Market.

NEW YORK, Feb. 13.—Hops are nominally unchanged. Choice stock has a fair demand at steady prices, while inferior grades have no demand. Coast crop of 1886, prime to choice, 22@25c; same, fair to good, 18@21c; 1885, good to prime, 8@10c.

Dried and Canned Fruit at the East.

NEW YORK, Feb. 13.—Raisins—Weak and lower. Two-crown loose Muscatel, $1.30; do California, $1.30; London layers, $1.65@1.70; do California, $1.70. At the auction yesterday low prices were realized for all descriptions of foreign and Pacific dried fruits, the California raisins offered bringing $1.05@1.20 for loose Muscatel, $1.15@1.45 for London, and 85c to $1.05 for seedless.

Prunes—There has been less demand for Turkish, to which fact the liberal offerings of Bohemian are attributed. French, quiet and steady at 8⅜@8½c. Turkish are offered at 6½@6⅝c.

Citron—Firm at 18½c.

Currants—Lower, quoted at 4½@4⅝c.

The canned goods trade presents a moderate appearance of activity, the demand from small buyers improving, and large buyers are in the market in quest of tomatoes, corn and other staples. Prices continue strong throughout. California canned pears, $2.75@3.25; peaches, $2.75@3.25; apricots, $2.50@3.15; Lima beans, $1.50.

California Products in New York.

NEW YORK, Feb. 13.—Seeds—Business is generally fair, but transactions are unimportant. California yellow mustard, 3¾@4½c.

Local Markets.

BARLEY—The market continued to sink up to Monday, when a steadier feeling set in with an advance established. The closing for sample parcels was stronger. On Call the lowest sales were reached on Saturday; since then the tendency has been upward. The following are to-day's sales:

Morning Session: Buyer season—800 tons, $1.02; 100, $1.02½; 900, $1.02¼; 1400, $1.02⅜; 400, $1.02½. Buyer 1887—100 tons, $1.04⅞ ₩ ctl. Afternoon Session: Buyer season — 200 tons, $1.02¾; 1800, $1.02½; 500, $1.02⅝ ₩ ctl.

BUTTER—The strong tone reported last week is continued this, with in some instances an advance established. The stocks in hand are lighter, yet the selling pressure is still strong.

CHEESE—The market is strong, with a weak tone, owing to expected supplies coming forward more freely.

EGGS—The market is barely steady, owing to liberal supplies. All received are of good quality.

WHEAT—Buyers are paying from 2½ to 3¾ cents per cental more in the interior than here. The latest sale is $1.46¼@1.47½ for good to choice, Port Costa delivery, although more was paid in the country. On Call, transactions have been free. To day's sales were as follows:

Morning Session: Buyer season — 100 tons, $1.51⅜; 600, $1.51½; 1200, $1.51⅝; 700, $1.51¾; 1800, $1.51⅞. Buyer 1887—100 tons, $1.56⅜; 400, $1.56⅞ ₩ ctl. Afternoon Session: Buyer season—600 tons, $1.52; 300, $1.51⅞; 100, $1.52⅛; 200, $1.52¼; 100, $1.52⅜; 500, $1.52½; 2400, $1.52⅝. Buyer 1887—100 tons, $1.56⅜; 300, $1.57½; 500, $1.57½. Seller 1887—200 tons, $1.42½ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Advices from the agricultural districts are of the same character reported last week. From letters received, there can be no doubt but the acreage seeded to wheat is not over 65 per cent of the number seeded up to the like date last year, and, owing to the advanced season, it is not at all unlikely that the total acreage will be much in excess of 2,400,000 acres against 3,400,000 acres last year. Present advices regarding the crop outlook, together with the general character of the weather that usually obtains from now on when the rains come late, justify the belief that the yield to the acre this year will be considerably in excess of last year. It is feared that if warm rains come soon the heavy deposits of snow in the mountain ranges may be carried off quite rapidly and flood the lowlands bordering the large rivers, by which the plant on many thousand acres of land will be destroyed. In Oregon and Washington Territory, crop advices continue to be of an encouraging character. Eastern advices, regarding crop prospects, are without essential change. The local wheat market has ruled dull and heavy throughout the week, with only one large export buyer in the market, and he kept bids down on all parcels offered for sale. Stormy weather has much to do with the market, for ships cannot load in a heavy rain, and, as a consequence, export buyers do not make purchases in stormy weather, unless at concessions. With clearer skies and more settled weather, more buying is expected. Offerings on the market have been more liberal the past week, but sellers are slow in letting go at the lower quotations. The market declined from Wednesday last up to Monday of this week over 5 cts per cental, since when it has advanced. There are still many holders of large parcels of wheat who will not sell yet, fearing that crop prospects may turn for the worse before June next. On Call, there have been free dealings in options, at prices showing moderate declines from last week's quotations, but on Tuesday the market began to recover. It is now claimed that the market is being manipulated for another bull movement.

The barley market continued to ease off, up to Monday, under freer selling combined with a strong bear movement on Call, but on Tuesday higher prices prevailed. Among the best informed there is a prevailing opinion that many who were long on Call options have been sold out, and consequently large operators are about ready for another bull movement. Crop advices continue favorable. It is generally conceded that the harvest will be later by at least two weeks than it was last year, and as the consumption is much larger than last year, the stock in the State will be reduced to low proportions before new is on the market.

The oat market is steady at the lower prices. It is claimed that the new overland tariff that will go into effect next month will stop the importation of Western oats. Oregon and Washington Territory advices report a light supply for the season.

Corn is reported to be without any material change. Western continues to be offered both on spot and to arrive in excess of the market requirements, which keeps values down and in buyers' favor.

In rye and buckwheat, dealers do not report any change since our last issue.

Live-Stock.

In both beef cattle and mutton sheep, there is nothing new to report. Calves, lambs and hogs are stiff. The supply of hogs is below the consumptive demand. In horses the market is without change.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5@—c; wethers, 5½@—c.

LAMB—Spring, 6@7c. Yearlings, —c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 3¼ to 3¾c for heavy and medium; hard dressed, 5½ to 7c per lb; light, 3 to 3¼c; dressed, 5 to 6c; soft hogs, live, 2 to 2¾c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Millstuffs.

The demand is of an offish character for ground feed, owing to improved pasturage, but owing to light stocks the market holds to strong prices

Hay is in light stock, but owing to the heavy rains, dealers only buy for immediate wants, fearing that heavy supplies may come forward. Choice grades continue scarce and in good request. The consumption so far this winter has been largely in excess of last winter.

Fruits.

Oranges are in free supply, but dealers refuse to make concessions on best consignments, but on common some shading is reported. The demand is slow, as peddlers are unable to operate. From up north the call is light.

Limes are a shade easier under a better supply. The demand is light. Lemons are reported to be unchanged.

Oregon continues to send us liberal supplies, for the season, of apples, which fetch good prices.

Dried fruits continue to rule strong at full figures, particularly the more choice packed.

Raisins are slow, with only the more choice, packed in attractive boxes, fetching full figures.

Vegetables.

Rainy weather up to Monday, with bad roads reported, have been against receipts. The light receipts created a strong, high market for the better grades. Fears are expressed of floods on the rivers, which, if realized, will do much damage to the crop. New potatoes are coming in quite freely, but as yet prices are well maintained.

Onions continue to rule strong at full figures, owing to moderate supplies and a good demand.

Cabbages are in good demand at full figures, chiefly to fill shipping orders. Sound hard cabbages are taken at a slight advance on top quotations.

Garden truck continues to come in sparingly from the southern counties, and sell at fancy prices. Cold weather retards their growth in the bay counties.

Root vegetables are without change.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	196,853	141,003
In port, disengaged	112,961	69,163
In port, engaged	15,756	66,544
Totals	324,570	276,710

The above gives a carrying capacity as follows: 1887, 520,312 short tons; 1886, 442,736 short tons; increase over last year, 77,572.

Two vessels were taken yesterday for wheat loading, with negotiations pending for others. They have short lay days so as to get the wheat off before March 1st to save taxes.

Poultry is stronger and higher under light receipts and a good demand.

Game is higher under lighter supplies, and the market well cleaned up.

Hops are very strongly held, but buyers demand concessions on asking prices.

In wool there is nothing new to report. The inquiry is light, owing to small stocks to select from.

Honey is in sellers' favor, although buyers talk of a larger crop, owing to the rains improving the flowers on which bees feed.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Feb. 16, 1887

Apples, bx com..	75	@	1 25	Nectarines..	8	@ 10
do choice.....	1 75	@	2 25	do evaporated	16	@ 18
Bananas, bunch.	2 00	@	3 25	Peaches.....	8	@ 10
Blackberries, ch.	—	@	—	do pared.....	18	@ 20
Canteloupes, cr.	—	@	—	Pears, sliced....	5	@ 6
Cherries blk.....	—	@	—	do qrtd.....	4	@ 5
do Royal Ann..	—	@	—	do evaporated	8	@ 10
Cherry plums...	—	@	—	Plums, pitted..	9	@ 10
Crabapples.....	—	@	—	do unpitted...	3	@ 5
Cranberries.....10	00	@12	50	Prunes.....	6	@ 10
Currants chest...	—	@	—	do French	10	@ 13
Figs, bx.....	—	@	—	Zante Currants.	8	@ —
Grapes.....	—	@	—	RAISINS.		
do Rose Peru.	—	@	—	Dehesa Clus, fcy	2 40	@ 2 50
do Muscat....	—	@	—	Imperial Cabinet, fancy....	1 75	@ —
do Tokays....	—	@	—	Crown London Layers, fcy..	1 50	@ —
Isabel.....	—	@	—	do Loose Muscatels, fancy	1 40	@ —
Wine, Zinfandel	—	@	—	do Loose Muscatels.....	1 35	@ —
do Mission....	—	@	—	Cal. Valencias..	1 25	@ —
Limes, Mex.....11	00	@	—	do Layers	1 25	@ —
do Cal. box ...	50	@	1 00	do Sultanas...	1 25	@ —
Lemons, Cal., bx	1 00	@	1 50	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.		
do Sicily, box.	2 00	@	2 50	VEGETABLES.		
do Australian.	—	@	—	Artichokes, doz.	—	@ —
Nectarines box.	—	@	—	Asparagus ₩ lb..	40	@ 60
Oranges, Com bx	1 50	@	2 00	do cultivated.	—	@ —
do Choice.....	2 25	@	3 00	Okra, dry, lb...	10	@ 12½
do Navels.....	2 50	@	4 50	do green box..	—	@ —
do Panama.....	—	@	—	Parsnips, ctl....	1 50	@ —
Peaches, bx.....	—	@	—	Peppers, dry lb..	10	@ —
do bask	—	@	—	do green, lb..	22½	@ 25
Crawfords, bx	—	@	—	Pumpkins prtn	—	@ —
do bskt..	—	@	—	Squash, Marrow fat, too.....	7 00	@12 00
do choice	—	@	—	do Summer bx	—	@ —
Pears bx	—	@	—	String beans lb..	—	@ —
do choice.....	—	@	—	Tomatoes box..	1 25	@ 1 50
do Bartlett, bx	—	@	—	Turnips ctl.....	25	@ 60
Persimmons, Jap, bx.....	—	@	—	Beets, sk	75	@ —
Pineapples, dox.	4 00	@	5 00	Cabbage, 100 lbs.	1 30	@ 1 55
Pomegranates, b	—	@	—	Carrots, sk.....	35	@ —
Prunes bx.....	—	@	—	Cauliflower, doz.	—	@ —
do Egg.....	—	@	—	Eggplant, ...bx	—	@ —
Quinces bx.....	—	@	—	Garlic, ₩ new..	—	@ —
Raspberries ch..	—	@	—	Green Corn, small box...	—	@ —
Strawberries ch.	—	@	—	do large box..	—	@ —
Watermelons100	—	@	—	Green Peas, lb..	7½	@ 12
DRIED FRUIT				Lettuce, doz....	10	@ —
Apples, sliced, ₩	5	@	6½	Lima Beans lb...	—	@ —
do evaporated.	11	@	12½	Mushrooms, lb..	25	@ 40
do quartered..	4	@	5	Rhubarb lb.....	15	@ 17
Apricots.....	13	@	15			
do evaporated	20	@	25			
Blackberries....	9	@	11			
Citron.....	28	@	30			
Dates.....	9	@	10			
Figs, pressed....	5	@	6			
Figs, loose.....	3	@	4			

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Feb. 16, 1887

BEANS AND PEAS.				Peanuts	4½	@ 5
Bayo, ctl.....	1 40	@	1 55	Filberts	10	@ 11
Butter.....	1 25	@	1 55	Hickory	7	@ 8
Pea.....	1 60	@	1 70	POTATOES.		
Red.....	1 25	@	1 40	Burbank.....	1 75	@ 2 00
Pink.....	1 25	@	1 40	Early Rose	1 10	@ 1 40
Large White....	1 60	@	—	Cuffey Cove.....	1 30	@ 1 65
Small White....	1 60	@	1 70	Jersey Blues...	1 50	@ 2 00
Lima	2 00	@	2 45	Petaluma.....	—	@ —
Fld Peas, blk eye	1 00	@	1 05	Tomales.....	1 00	@ 1 40
do green.....	1 00	@	1 12½	River reds.....	1 00	@ 1 35
do Niles.....	1 25	@	—	Humboldt.....	—	@ —
BROOM CORN.				do Kidney....	—	@ —
Southern per ton	50	@	75	Chile	—	@ —
Northern per ton	50	@	75	do Oregon...	1 35	@ 1 60
CHICORY.				Peerless.....	1 50	@ 2 00
California.....	4	@	4½	Salt Lake.....	—	@ —
German.....	6½	@	7	New Potatoes...	2½	@ 3½
DAIRY PRODUCE, ETC.				POULTRY AND GAME.		
BUTTER.				Hens, doz.....	6 00	@ 8 00
Cal. fresh roll, lb.	15	@	17½	Roosters.....	5 50	@ 8 00
do Fancy br'nds	19	@	21	Broilers	5 00	@ 7 00
Pickle roll.....	15	@	16½	Ducks, tame....	5 00	@ 9 00
Firkin, new.....	15	@	16	do Mallard....	3 00	@ —
Eastern.....	—	@	—	do Sprig.....	1 00	@ —
CHEESE				Geese, pair.....	1 50	@ 2 50
Cheese, Cal., lb..	14	@	17½	do Goslings ...	—	@ —
Eastern style....	15	@	17	Wild Gray, doz	75	@ 1 50
EGGS.				Turkeys, lb.....	16	@ 18
Cal., ranch, doz..	24	@	25	do Dressed..	18	@ 20
do, store.....	22½	@	24	Turkey Feathers, tail and wing..	10	@ 20
Ducks	—	@	—	Snipe, Eng., doz.	—	@ —
Oregon	—	@	—	do Common..	—	@ —
Eastern.....	—	@	—	Doves.....	75	@ 85
Utah.....	—	@	—	Quail.....	1 25	@ 1 75
FEED.				Rabbits.....	1 00	@ —
Bran, ton.....	15 00	@	16 00	Hare.....	1 25	@ 1 75
Cornmeal.....	25 00	@	—	Venison	8	@ 10
Gr'd Barley ton.	24 00	@	—	PROVISIONS.		
Hay	9 00	@	14 00	Cal. Bacon.		
Middlings.....	22 00	@	23 00	Heavy, lb.....	8½	@ 9
Oil Cake Meal.	26 50	@	28 50	Medium	8½	@ 9
Straw, bale.....	40	@	60	Light.....	10½	@ 11½
FLOUR.				Extra Light..	12	@ 12½
Extra, City Mills	4 75	@	5 25	Lard.....	7	@ 10½
do Co'untry Mills	4 50	@	5 00	Cal. Smoked Beef	11½	@ 12½
Superfine.....	3 50	@	4 25	Hams, Cal.....	10	@ 12½
GRAIN, ETC.				do Eastern..	13	@ 14
Barley, feed, ctl.	1 00	@	1 07½	SEEDS.		
do Brewing..	1 05	@	1 15	Alfalfa.....	9	@ 10
Chevalier	1 45	@	1 60	Canary.....	3½	@ 4
do Coast...	90	@	1 45	Clover red.....	12	@ 13
Buckwheat	1 00	@	1 20	White	17	@ 18
Corn, White....	1 05	@	1 10	Cotton	20	@ —
Yellow	1 02½	@	1 10	Flaxseed	2½	@ 2½
Small Round.	1 05	@	1 15	Hemp.....	4	@ 4½
Nebraska	97½	@	1 05	Italian RyeGrass	25	@ —
Oats, new.....	—	@	—	Perennial.....	7	@ 9
Choice feed.....	1 50	@	1 57½	Millet, German..	4½	@ 5
do good.....	1 40	@	1 47½	do Common.	7	@ 10
do fair.....	1 30	@	1 37½	Mustard, white..	3	@ 3½
do black	1 40	@	1 55	Brown.....	2 25	@ 2 75
do Oregon	1 30	@	1 60	Rape.....	1	@ 1½
Rye.....	1 10	@	1 25	Ky. Blue Grass..	11	@ 13
Wheat milling.				2d quality.....	11	@ 12
Gilt edged..	1 55	@	—	Sweet V. Grass.	75	@ —
do Choice.....	1 50	@	—	Orchard.....	20	@ 25
do fair to good	1 47½	@	—	Red Top.....	15	@ —
Shipping choice	1 50	@	—	Hungarian.....	8	@ 10
do good.....	1 48½	@	1 47½	Lawn	30	@ 40
do fair.....	1 45	@	—	Mesquit.....	10	@ 12
HIDES.				Timothy.....	5½	@ —
Dry.....	—	@	16	TALLOW.		
Wet salted.....	8	@	9½	Crude, lb.....	2	@ 5
HONEY, ETC.				Refined.....	6	@ 9
Beeswax, lb.....	20	@	22	WOOL, ETC.		
Honey in comb.	9	@	12	SPRING—1886		
Honey in comb, fancy.....	12	@	13½	Humboldt and Mendocino	22	@ 25
Extracted, light.	4	@	4½	Sact'o valley....	17	@ 20
do dark.	3½	@	4½	Free Mountain.	17	@ 20
HOPS.				N'hern defective	—	@ —
Oregon.....	20	@	25	S Joaquin short.	14	@ 18
California.....	18	@	25	do long.....	—	@ —
ONIONS.				Cava'e & F'th'll.	—	@ —
Pickling.....	—	@	—	Oregon Eastern.	17	@ 22
Silverskin, ...	1 50	@	2 50	do valley....	23	@ 25
NUTS—Jobbing.				Southern Coast.	13	@ 17
Walnuts, Cal., lb	12½	@	13½	FALL—1886		
do Chile.	—	@	—	Southern, free..	17	@ 20
Almonds, hd shl.	5	@	7	do defective..	12½	@ 19
Soft shell.....	15	@	19	Northern, free..	20	@ 23
Paper shell	18	@	20	do defective..	15	@ 20
Brazil.....	11½	@	13	Middle free.....	18	@ 21
Pecans.....	9	@	11	do defective..	15	@ 18

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Feb. 10-16.	Portland. Rain	Temp.	Wind.	Weather.	Red Bluff. Rain	Temp.	Wind.	Weather.	Sacramento. Rain	Temp.	Wind.	Weather.	S. Francisco. Rain	Temp.	Wind.	Weather.	Los Angeles. Rain	Temp.	Wind.	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.12	31	E	Cy.	.01	43	S	LR	.10	47	SE	Th.	.28	52	S W	Cy.	.10	57	S	Fr.	.26	58	W	Cy.
Friday	.00	32	NE	Cl.	.31	47	S	LR.	.09	54	SE	Cy.	.21	53	S	LR.	.00	[illegible]	SE	Cl.	.00	55	N	Cl.
Saturday	.00	30	N W	Fr.	1 59	51	S	LR	.17	54	SE	Cy.	1.04	56	S	Cy	.00	61	[illegible]	Cl.	.00	57	S W	Cl.
Sunday	.16	34	Cm	Cy.	.28	[illegible]	S	Fr.	.40	50	S	Cy.	.24	51	S W	Fr.	.58	56	S	Cy.	.61	59	S W	Cy.
Monday	.00	36	NE	Cl.	.02	40	S	Cy.	.86	42	E	LR.	.64	45	SE	Cy.	.34	53	S	LR.	.05	57	S	Cy.
Tuesday	.00	36	N	Cl.	.05	40	N	LR.	*.—	44	N	Cy.	.07	46	NE	Fr.	3.74	50	E	LR	1 69	55	[illegible]	Cy.
Wednesday	.00	34	S W	Cy.	*.—	41	S	Cy	.03	43	S	LR	.33	45	SE	Cy.	.78	56	S W	Fr.	.25	50	N W	Fr.
Total	.28				.2 26				1.65				.2 81				5 54				2 86			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

A PENDULUM CHURN.—The latest novelty in churns is one which works on the principle of the pendulum. The churn is hung up and by devices of counterbalance weights and springs is moved back and forth like the weight on a clock pendulum, by the exercise of a very little force. The construction is very simple; there is no iron or metal of any kind to be brought into contact with the cream, thereby avoiding any collection of corrosive matter; it can be readily taken apart for cleansing and cannot get out of repair. The evenness with which it brings the butter gives, it is claimed, a larger percentage from the same amount of cream than other churns. A small as well as a large amount can be churned and the churn is made of different sizes.

Dry Rot in Timber.

In a recent number of a German technical paper, Herr Gottgetrue treats of the question of dry rot by the light of a summary of known facts illustrative of the subject. He is of opinion that the problem is still to be solved; and, in view of the occurrence of dry rot under some very peculiar conditions, suggests that the germs of the disease may exist in the living tree. In no other way can he explain the decay of wood from this cause when it was apparently dry and sound and properly used. In Russia there are entire forests from which no timber is now taken, experience having shown that it has always been attacked by dry rot. Sometimes a strong solution of common salt, applied while hot, has been found an efficient preservative of timber. The necessity of airing timber in its built-in position is, of course, universally recognized. Professor Farsky, of Tarbor, Bohemia, has found that salicylic acid is a preventive and cure for dry rot. At first the acid was used in a dry form, but latterly great success has been achieved with a solution of 5·28 ounce of salicylic acid in 0 22 gallon of alcohol, and afterward diluted. This solution has efficiently protected a floor 800 square feet in area from the spread of dry rot, and has removed it from the spots where it seemed to have established itself. The crude acid may be used for this purpose, and its action as an antiseptic is hightened by the admixture of a little carbolic acid. Professor Poleck finds that wood cut in winter and not soaked in water is very susceptible to dry rot, which does not appear when the timber is kept perfectly dry or thoroughly wet. A somewhat high temperature and dampness are almost, though not entirely, essential to the propagation of the dry-rot mycele. It is in contemplation to determine by experiment whether timber cut in summer cannot be rendered safe against dry rot by the removal of the bark, protracted drying, and prolonged steeping in water.

Complimentary Samples.

Personsreceiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

BULL & GRANT FARM IMPLEMENT CO.—Readers will notice this firm name attached to an attractive advertisement in this week's RURAL. The firm is an incorporation which succeeds to the business in agricultural implements, formerly conducted by Arthur Bull. The incorporation has a capital stock of $50,000, $30,000 of which has already been subscribed and paid in. The directors are Arthur Bull, Chas. Montgomery, E. Glencross Grant, Franklin P. Bull and John Gould. We wish the new concern all success.

HOW THIRSTY PLANTS GET WATER.—In the arid regions of Egypt a French botanist, M. Volkens, has found roots 20 times as long as the part of the plant above the surface. On some of these desert plants the same observer has noticed a very curious moisture-absorbing contrivance. Glandular hairs put forth by the leaves yield a bitter crystalline liquid which spreads out at night and collects the dew.

Easy Binder.

Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, best and cheapest of all economical and practical file binders. Newspapers are quickly placed in it and held neatly, as in a cloth-bound book. It is durable and so simple a child can use it. Price, size of Mining and Scientific Press, Rural Press, Watchman, Fraternal Record, Masonic Record, Harper's Weekly, and Scientific American, 75 cents; postage, 10 cents. Postpaid to subscribers of this paper, 50 cents. Send for illustrated circular. Agents wanted.

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About Obtaining Patents.

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The Patent Law provides that in case a patent, which is the evidence of the cont act, is not executed in compliance with the requirements of the law, it may be annulled and rendered void Hence, it is of the greatest importance to every inventor that his patent or contract be skillfully and accurately drafted, in order that it may afford him complete protection for his invention during the life of his patent.

Secure a Good Patent.

An inventor should first ascertain whether or not his improvement has been patented to another. This requires an exhaustive search among all the patents in the class to which the invention relates. If, by this "preliminary examination," the improvement is found to have been previously invented, our client will receive, for the small sum of $5 for the examination, a verbal or written report showing definitely wherein his invention has been anticipated, thereby saving him further expense and perhaps much time, anxiety, etc.

To avoid all needless delay, however, and secure patents at the earliest moment practicable, inventors will do well to forward a mod l, drawing or sketch, with a plain, full and comprehensive description of their invention (stating distinctly what the particular points of improvement are), with $15 as a first installment of fees. If the improvement appears to us to be novel and patentable, the necessary papers for an application for a patent will be prepared immediately and forwarded to the inventor for his signature. When he receives the application and finds it duly prepared, he will carefully sign and return the same plainly addressed to us, with postal money order or express receipt for our own fee. The case will then be promptly filed by us in the Patent Office, and vigorously prosecuted to secure the best patent possible. [This course is the most expeditious and satisfactory, as no time is lost in transmitting correspondence relative to the preliminary steps.] When the patent is allowed the inventor will be duly notified, and on sending the final Government fee of $20 to us, we will order the issue of the patent, and forward the same as soon as it is secured from the Patent Office.

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Models and Drawings.

Models are now seldom required by the Commissioner of Patents, and generally only in intricate cases. Perfect drawings of practical working machines are more satisfactory to the Patent Office than the old cumbersome system of storing up an immense bulk of countless models.

Drawings or sketches, sufficient to illustrate the invention clearly, with a description that will enable us to make a full set of perfect drawings for the Patent Office, is all that we require. A model will answer our purpose as well, however, in cases where the inventor can more easily furnish it.

The value and even the validity of a patent often depends on the character, clearness and sufficiency of its drawings. There are thousands of existing patents in which the improvements are but partially or poorly illustrated in the drawings When an attempt is made to dispose of such patents, the vagueness and defects of the drawings oft n prejudice capitalists and manufacturers against the invention, while in reality it may be of great value, and would meet with ready sale had it been skillfully, completely and artistically portrayed. In all cases prepared by us, the drawings are made under our personal supervision, by skilled draftsmen in our constant employ, and every precaution is taken to have the invention fully and clearly shown by different views, so that the improvement will be readily understood by the Examiners in the Patent Office, and comprehended by the public when the patent is granted.

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A Caveat is a confidential communication made to the Patent Office, and is therefore filed within its secret archives. The privilege secured under a caveat is, that it entitles the caveator to receive notice, for a period of one year, of any application for a patent subsequently filed, which is adjudged to be novel and is likely to interfere with the invention described in the caveat, and the caveator is then required to complete his application for a patent within three months from the date of said notice. Caveat papers should be very carefully prepared. Our fee for the service varies from $10 to $20. The Government fee is $10 additional.

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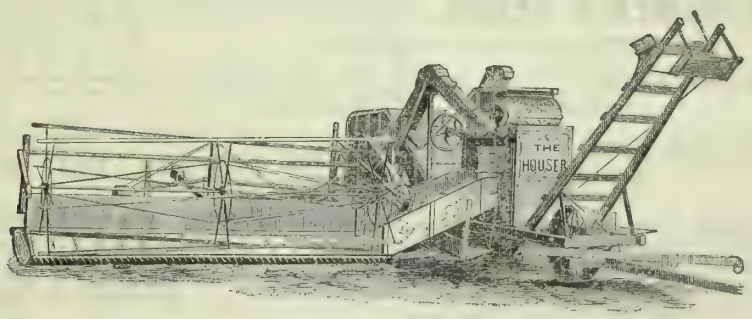
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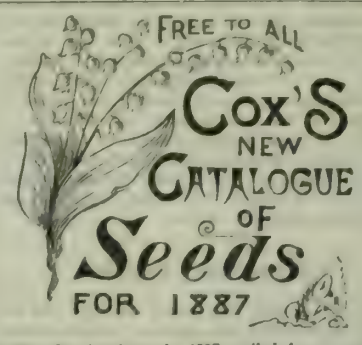
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BEST MARKET BERRY KNOWN! Large, Firm and Luscious, stands travel finely, bears immensely, and has two crops a year; 75 cents per dozen; $3 per 100. Also Strawberries, Blackberries, Gooseberries, Currants, etc., of finest imported varieties. Prices on application.

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ESTABLISHED IN 1858.

Apricot, Plum, Prune and Peach on Myrobolan Plum tocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

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For Sale—White Adriatic Fig Cuttings of my own importation. Grape Roots and Cuttings of Carignan, Mataro Grenache, Teinturier, Trousseau, Carbenet Sauvignon, Malbec and Muscat Frontignon, etc.

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INSECTICIDE!

FOR ERADICATING AND DESTROYING ALL PESTS THAT INFEST FRUIT TREES AND PLANTS, SUCH AS

SCALE BUG, HARVEST FLIES, TREE HOPPERS, PLANT LICE, Etc.

It has been fully tested by the Agricultural Department of the State University, and pronounced a success, the endorsement of which we append. It is put up in convenient forms for use both in liquid and paste state.

For Sale in Barrels and 2 and 5-pound Cans in paste form, and in Barrels and 5-gallon Cans in liquid form.

Copy of Letter Received from the University of California, College of Agriculture, Berkeley, dated December 4, 1886.

J. N. KNOWLES, Esq., Manager Arctic Oil Works, San Francisco—DEAR SIR: We have lately tested the Insecticide preparation of Whale-Oil Soap sent by you to us, and have found it to be very effectual against the Scale infesting Orange and Bay Trees here; also against the Thrips. From our previous experience with a similar composition, I think it will be found fully effectual against any small Insect Pests not specially protected like some of the armored Scales, and against which any Wash short of strong lye cannot be used. Respectfully,

E. W. HILGARD, Professor of State University.

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We are the sole agents (in Northern California) of Messrs. Twogood, Edwards & Cutter, of Riverside, for the sale of their Orange Trees, budded on the popular Florida Sour Orange Stock, and are prepared to book orders for carload lots or less. Now is the time to secure a good Orange grove cheap. Send at once for circular and price list. All orders must be booked prior to February 20th, to insure getting trees. Don't miss this opportunity.

We are also prepared to furnish a full line of Nursery Stock; also Seeds of all kinds, both wholesale and retail. The very best Stock at bedrock prices. Send for Seed and Tree Catalogue and Special Prices for large lots. Address

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ALL OUR TREES ARE GUARANTEED FREE FROM SCALE, and are grown without irrigation on new land distant from old orchards.

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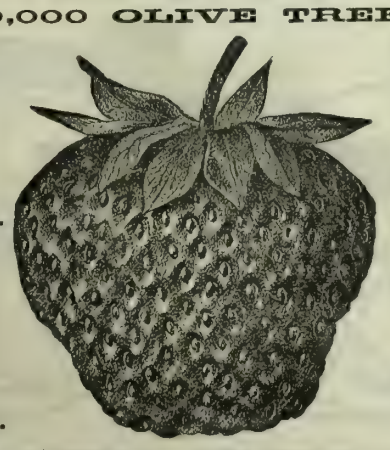
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60,000 OLIVE TREES!

Nut Trees,
Apples,
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Plums,
Prunes.
Cherries,
Peaches,
Apricots,
Nectarines,
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Quinces,
Loquats,
Guavas,
Medlars,
Persimmons,
Pomegranates,
Mulberries,
Small Fruits,
Rhubarb,
Asparagus,
Ornamental Trees,
Roses, Etc.

Santa Rosa Nurseries are now and always have been **FREE FROM SCALE**, and the unusual care which has always been taken to have everything that leaves our nurseries **true to name**, and in the best possible condition to grow, has given them a reputation for reliability which has caused our sales to **more than double every year** for ten years. ☞ELEGANT CATALOGUE FREE.

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Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them **FREE** my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

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For 1886 and 1887.

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All of this year's growth, for sale at the GEO. F. SYLVESTER SEED WAREHOUSE, Nos. 315 and 317 WASHINGTON STREET, SAN FRANCISCO. SAMUEL BRECK, Proprietor.

100,000 FRUIT TREES.

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ROYAL BLENHEIM and **HEMSKIRKE APRICOTS**, on Peach and Apricot, 3 years, transplanted. Good roots and heads.

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BARTLETT PEARS, 1 and 2 years; good stock.

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EARLY CRAWFORD PEACHES, on Almond, 1 year.

HUNGARIAN PRUNE, WASHINGTON and **YELLOW EGG PLUMS**, on Apricot, 1 year.

YELLOW NEWTON PIPPIN APPLES, 1 year.

☞The above are clean and thrifty, and will be sold at low rates if applied for soon.

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is offered and described in our

CATALOGUE No. 446, which this year we send out in an illuminated cover. The Catalogue is replete with new engravings of the choicest flowers and vegetables, many of which can only be obtained from us; and contains, besides, 2 beautiful colored plates, and very full instructions on all garden work. Altogether it is the best ever offered by us, and, we believe, is the most complete publication of its kind ever issued. Mailed on receipt of 10 cents (in stamps), which may be deducted from first order. Please be sure to order Catalogue by the number.

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33d YEAR. 700 ACRES.
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FRUIT, SHADE and ORNAMENTAL TREES, SHRUBS and GREENHOUSE PLANTS,

Including Azaleas, specimen Arancarias Imbricata, Camellias and Rhododendrons, Roses and Pinks. Our Specialties, for which this place has long been noted: Seedlings; Cypress and Laurustinus, all sizes, for hedging; **50,000** Blue and Red Gums transplanted in boxes. We invite inspection of our stock. Send for Descriptive Catalogue. Address, **E. GILL, 28th St., bet. Adeline and Market, near San Pablo Avenue, OAKLAND, CAL.** ☞San Pablo Avenue Cable Cars pass close to the Nurseries.

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BULL & GRANT FARM IMPLEMENT CO.

MANUFACTURERS AND IMPORTERS OF

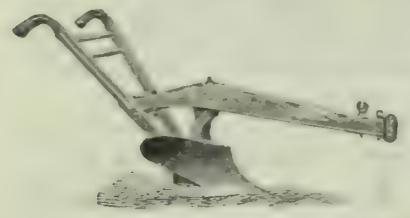
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THE

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Is warranted to scour in the most difficult soils; runs light and is durable. Made in all sizes. They are furnished with a device for shifting beam to right or left, adapting them for work among trees and vines.



The ACME has double rows of Cast-Steel Coulter Teeth, which cut over the entire surface of the ground. It is the only Pulverizer having a CLOD-CRUSHER AND LEVELER. Being made of wrought-iron and steel, it is practically indestructible. It will keep the soil in better condition, and with less expense, than any other tool.

THE

"FARMERS' FRIEND"

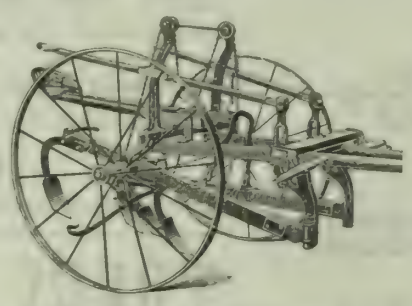


Two or Three-Plow Gang is the most economical Plow invented for orchard or vineyard work. Saves the labor of two men, and is as easily handled among trees and vines as single Plows.

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For Deep Tillage or Corn Cultivation.

Is built entirely of Steel, making it the Lightest and, at the same time, the Strongest Cultivator in the market. Made with 4, 5, or 6 Shovels.



Also in Stock all sizes of the

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Adapted Especially for Orchard and Vineyard Work.

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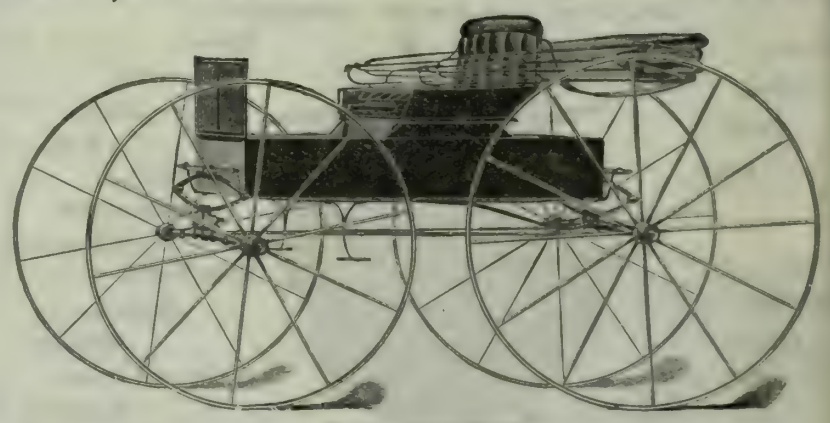
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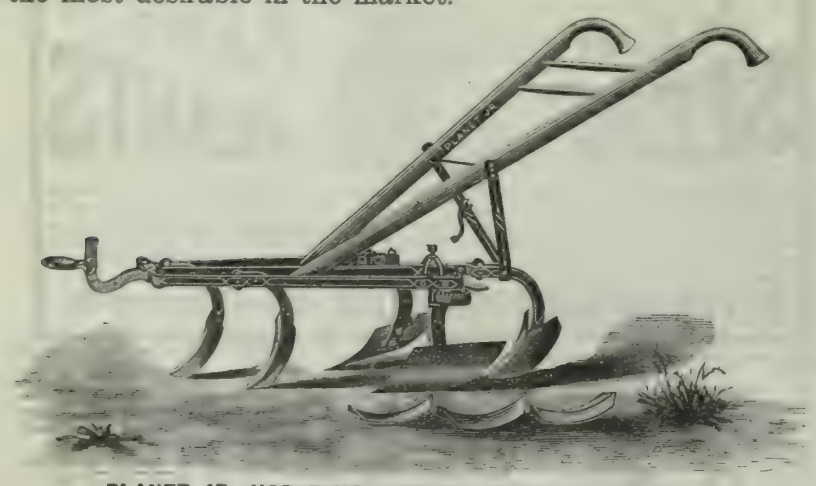
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Our large stock of Vehicles, composed of the most popular styles, and made by leading manufacturers, in each grade of work, enables us to offer intending purchasers unusual facilities.

☞ We would call particular attention to our line of Spindle Wagons, or Buckboards, which are everywhere taking the lead as the most desirable in the market.

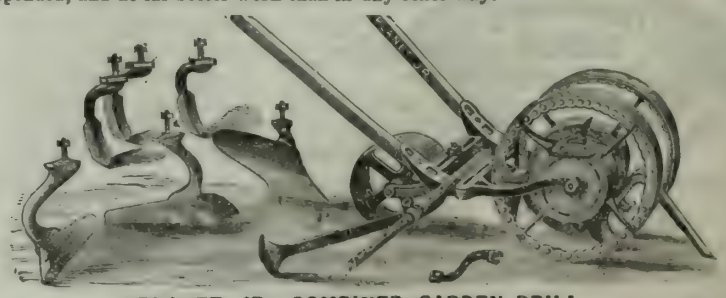




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Nothing has yet been invented that can equal the PLANET, JR., IMPLEMENTS for Gardening; either where the work is done with the aid of a horse or by hand, or both. Simple, light, very strong, and fitted with a number of attachments, which give them a wide range of usefulness, the owner of one of these tools can accomplish more for the amount of time and labor expended, and do far better work than in any other way.



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Send for Illustrated Catalogue of the PLANET, JR., GARDEN TOOLS, of value to every Gardener.

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PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 9.] SAN FRANCISCO, SATURDAY, FEBRUARY 26, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

Outdoor Recreations.

Now that eastern telegrams are so freighted with accounts of the toboggan craze, a mention of California outdoor, winter recreations may not be amiss. So far as we can learn from descriptions, the tobogganing which is now popular at the East is a sort of a glorified "coasting," or "sliding-down-hill," which we remember as one of our boyhood's indulgencies. To be popular, however, it seems necessary to find a place where there is no natural hill and make one out of timber. This of course costs money and gives the chance for getting up stock companies to build a slide, and then only the elect can ride down it, which liberates one from contact with the "pungs" of the unwashed and gives the whole business a sort of social standing, as it were. The sidewalk or roadway coasting of our boyhood was a very democratic affair, and any one, whether he had a cast-iron "swan's neck" or made his sled of two staves of a whisky barrel, could take part therein. Tobogganing seems to be different in this respect, but it is apparently quite as dangerous as the old-fashioned sport, for the artificial hills have a way of shivering their timbers and impaling one on the splinters, which is shocking to read of.

But we do not care to enlarge on snow or ice sports of any kind. We have had all we ever care to have of them. We wouldn't care if we had to live a hundred years in California and never see a snow-flake. For we have outdoor recreations in what is called winter here, which cheer but do not refrigerate, and which fill the frame with life and the heart with joy without shortening in one's ears or decimating one's toes and fingers. Our engraving on this page gives but a single glimpse at California's winter recreations—that of the roadway. There is no State in the Union where the saddle is so freely and satisfactorily used by both sexes as in California. Nor is the wheeled vehicle, whether it be the road-cart, the buggy, or the many forms of two-seated outfits, less in requisition or in joy. The scene which our artist takes from the grounds of the Hotel del Monte, in Monterey, is like many which can be seen this month in all parts of the State except in the snow regions of the mountain-tops. The crowds in the open air, the beautiful vegetation, the general tenor of the engraving, is characteristically Californian.



MARCH SCENE AT THE DEL MONTE CLUB HOUSE, MONTEREY, CAL.

Sugar.—Those interested in the latest improvements in sugar-making should write to Col. Colman, Commissioner of Agriculture, Washington, D. C., for a copy of Bulletin 14, in which Prof. Wiley gives a record of experiments at Fort Scott, Kansas, in the manufacture of sugar from sorghum and sugarcanes in 1886. These experiments give the latest results with the new diffusion and carbonatation process and descriptions of the apparatus used for sugar-making on this system. The competition between sugars derived from different sources is now very sharp and prices are low. If sugar can be profitably made in this country it must be by the very best and most economical processes, and the Government is doing well in investigating the matter thoroughly.

Flowers and Perfumery.—It is stated that E. J. Baldwin and others are preparing to start a 60-acre flower farm on the Santa Anita ranch. Suitable buildings and distilling apparatus are to be erected for the manufacture of perfumes from roses and other flowers.

Riverside Citrus Fair.

The abundant rains which have blessed the Southern counties, as well as the rest of the State, have been so copious in the southern citrus region that it has been found advisable to postpone the Riverside Citrus Fair, which was announced for this week, till March 8th. We gave in our issue of February 12th the full list of premiums offered and the regulations for entry, etc. We urge all, now that more time is given for collecting and preparing displays, to get together their best fruit and fruit products and send them down for display at the Riverside pavilion. This excellent building has inclosed some very fine displays in former years, and considering the wonderful progress the South has made since the last fair, there should be a magnificent exposition of the products of the leading industries of the region. March is usually a splendid month for a southern trip—a hint for our northern readers.

The winter has been very severe on the great plains, and immense numbers of cattle have been lost by the ranchmen of Montana, Colorado, Nebraska and Dakota. Nevada cattlemen are reported to have suffered very little.

The Railroad Commission recommends that the S. P. Co. establish a first-class freight station at Watsonville, as desired by the fruit shippers.

The Redwood Park.

Referring to the proposed purchase by the State of 20,000 acres of the redwood tract lying back of Pescadero and its conversion into a public park, the Santa Cruz *Sentinel* says it is understood that the land can be had for $15 an acre, and that several persons stand ready to contribute toward the funds requisite for the purchase. Unless some steps are taken to preserve them, the grand old redwoods must soon fall a prey to the insatiate ax of the lumberman. Nothing could be more delightful to the admirer of picturesque nature than such a park. It would be one of the most attractive spots on this continent. Towering redwoods, interspersed with open glades, shady dells and sunny slopes, present a lovely appearance, even in a state of nature. A region of that character, molded by the hand of art, would make one of the most exquisite retreats that the imagination can depict. The park would cover an area six miles long by five miles wide. Such a space would afford ample scope for the production of the finest landscape effects. The tract commands grand views of land and ocean, and embraces the finest varieties of scenery known to the redwood regions. In its broader aspects and without any thought of pecuniary gain, the project is well worthy of California.

Washington's Birthday was observed with honor in many Californian towns. At San Diego and Santa Barbara many shrubs and trees were planted. We gladly note these tokens of patriotic sentiment, and feel that they augur well for the maintenance of our free institutions, despite the trials, from within and without, to which they are subjected. We like, too, the growing disposition to engraft the observation of Arbor Day upon that of the natal anniversary of the *Pater Patriæ*, and hope the practice will prevail more and more, as the years roll round, and ere long become universal.

Apples are worth more than oranges in San Bernardino, selling for eight cents a pound.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

A Word For Southern Humboldt.

EDITORS PRESS:—We have been a subscriber for your valuable paper for five years, and have derived much pleasure and information from its pages. We have learned much of almost every portion of the State, the progress and development of which has been a source of pride and pleasure. But if we knew nothing of Humboldt county except what we have read in the city papers in all these five years, we must confess that our stock of information would be very small.

An occasional reference to the redwood forests and a vague item about stock and grass copied from the *Standard* (usually), about sums up what is said of this great county—one of the largest in the State. We have no right to complain of this seeming neglect, for it is our own fault. Even our county papers cannot give much information about local conditions, resources, possibilities, etc., unless we of the soil contribute to their columns. The truth is, Humboldt is but little known, much less boomed as many of our sister counties are.

To speak of Humboldt to a San Franciscan is to name a "far country"—Alaska or Farther India, for instance. One of the reasons for this is our somewhat limited means of communication with the outside world, though we have four shipping places, Humboldt bay, Eel river, Trinidad and Shelter Cove, also the overland stage road from Eureka to Cloverdale. The principal reason we are not better known is the lack of interest on the part of our citizens in describing the vast interests of our county. If we are not enough interested ourselves to try and attract the attention of others to us, how can we expect any adequate recognition?

It is not the purpose of this article to go much into details as to our soil, water, climate, products, attractions to "home-seekers," etc., leaving that to future efforts to elaborate. A few words, however, may not be amiss outlining briefly what our large area is good for. In the past and largely at present, the redwood timber has taken first place, and it is an item of great importance. But the principal area of the county consists of agricultural lands, which, after all, are of far more importance. For long years after the redwood timber has been stripped from our borders, the products of our soil will feed the hungry and clothe the naked. The timber will decrease, but the products from our broad acres will increase. It is not so much our bottom lands (among the richest in the world), but the thousands of acres of hill lands which are now used in the most primitive manner for stock—cattle and sheep roaming over them almost at will—that will in the near future swell our products and furnish homes for hundreds of families where now the isolated rancher is "monarch of all he surveys." These predictions are strengthened just now by the railroad talk, and would be speedily consummated by a railway connecting us with any of the great lines of the State.

Right here let us hint at the productiveness of the hills of Southern Humboldt. The writer has for several years farmed from 20 to 40 acres of his sheep ranch and obtained from 30 to 50 bushels of wheat per acre—not on rich patches, but an average of a ranch of over 3000 acres. Oats, barley, rye, corn, potatoes and vegetables all do equally well. And I venture the assertion that no finer fruit is produced on the Pacific Coast. I had Bartlett pears, season of 1886, 12 by 14½ inches in circumference; Crawford peaches 12 inches; strawberries 5½ inches; apples of highest flavor, plums, prunes, apricots, nectarines, figs and walnuts. Our grapes compare with any we have sampled in the State. I could show French prunes last season, from trees 5 to 7 years old, bearing from 600 to 800 pounds of finest quality of fruit.

We have an average rainfall of 35 to 50 inches, hence no drouths. The lowest temperature recorded during the last five years was 21°, and that only twice. The lowest so far this winter is 26°. The highest in summer 102°, and that not more than two or three times in a season. With all this, we have an abundance of wood for fuel and timber for building and fencing. The best of water, pure and soft, and so abundant that every quarter section has a living spring or little rill fed by living springs. For home-seekers where can a more inviting country be found? These large ranches could be bought and segregated for $10 to $15 per acre.

This land is all ready for the plow—no expense for clearing from brush, trees and rocks; no water ditches for expensive irrigation. We are justly proud of our schools, few, if any, counties in the State having a higher standard. The Eureka Academy and Commercial School offers an excellent opportunity to young men and women for practical training. It also embraces a Normal course, fitting teachers for good and efficient work.

I will close this article with an appeal to your readers in this county to join with me in an effort to make our noble county better known through the valuable columns of the PRESS. RANCHER.

Blocksburg, Humboldt Co.

[We welcome the effort.—EDS. PRESS.]

The Truth About California.

EDITORS PRESS:—The RURAL PRESS of the 29th ult. contained an editorial on the crop prospects in California, from which I clip the following:

Some of our readers are strongly protesting against the dispatches which are sent from their sections to the daily papers, representing fine prospects, etc. One writer denounces such reports as "lying telegrams," and says the outlook was never worse. We have always labored against the policy of exaggeration and misrepresentation, and are sure that such untruth does no real good to man or the State.

I wish that more people would "protest" against these "lying telegrams," and I think that editors of leading newspapers should exercise more discretion than they do in printing telegrams relating to crops from irresponsible and ignorant correspondents. Sometimes the local editors are to blame for erroneous and misleading reports. About the middle of last December we had a rainfall of about one-eighth of an inch, and a local paper had a paragraph, stating that the "farmers were jubilant" over the rainfall.

I have several times this winter noticed telegrams from different localities in the leading dailies to the effect that the farmers were rejoicing over the little showers that occasionally fell. Now, the fact is, as you know, that instead of farmers being "jubilant" over a slight fall of rain when the ground is dry, they always dread it. Farmers like to see a heavy rain fall early in the season, as these light showers are apt to sprout the grain already sown, and unless more rain follows them, the grain so sprouted dies for want of moisture. This has been the case to a certain extent in California this season. The rain that fell in November sprouted all grain then in the ground. In some localities there has not been enough rain to keep it alive, and the crop is lost. Since your issue of the 29th ult. we have had a glorious rain; and, although it came too late to give us our usual heavy crops, we still hope that more and late rains will give us plenty of hay and perhaps half a crop of wheat and barley. Nearly all the farmers in the southern and central parts of the State had suspended operations for some weeks prior to our last rain, which was, in fact, the only general rain of the season. Now every exertion will be made to improve the short remainder of the season; and what bade fair to be the "dryest season" for many years may yet give us half a crop.

Overestimates

It is a fact that farmers pay but little attention to the estimates and reports of crops made by boards of trade and produce exchanges. Nearly every man who is called upon for figures to help in such estimates, and all members of grain exchanges, are interested in the market as "bulls" or "bears," and each one tries to make the figures support his view of the market. Take for instance the estimate of the wheat and barley crop for 1886, made by the San Francisco Board of Trade and the Produce Exchanges. It was so grossly inaccurate that there was not an intelligent farmer in the State but knew that it was exaggerated. The "knowing ones" of the Exchange laughed at the estimate made by the RURAL PRESS, compiled from knowledge obtained from the simple farmers. Yet had they taken that estimate as correct, which it was, some of them who formed part of a certain "bag syndicate" would be several thousand dollars better off to-day. All sorts of exaggerated reports were industrially circulated among the farmers to induce them to buy bags at a high price; but the farmer had heard the cry of "wolf" before, and knowing just how many bags were needed, and just how many bags were in the State, he quietly but effectively bided his time. The days of "bag rings" are played out. Nearly all our large farmers import their own bags; that is, several of them club together and give an order to some respectable broker. If they don't want the bags when they arrive, they can afford to hold them for another season or sell them at a profit to a "bag syndicate," as some shrewd farmers did last year.

Foolish Rivalry.

I think that many of the mis-statements and exaggerated estimates of crops arise from the foolish rivalry that has lately sprung up between different sections of the State. One man sees a report that crops are good in a locality from which he has just returned, and where he knows that the crops are very poor. The prospects in his own locality may be no better, but he knows that they are just as good, and so he "goes one better" and reports "crop prospects good." Now, a word as to this unseemly, injudicious and injurious rivalry. It has so lately sprung up, that a little effort would kill it at once and forever. California is so large a State that the inhabitants of the counties of Siskiyou and Shasta may sometimes forget that the denizens of San Diego county, over 800 miles away, are also Californians and brothers. But neither should forget that if either a Shasta county or a San Diego county could be transplanted, with its climate, soil, and beautiful scenery, into Pennsylvania or New York, it would become the paradise and the Mecca of the Union. The State of California, as a whole, is without a rival under the broad canopy of heaven. In climate, fertility of soil, resources and beautiful scenery, it stands alone among the nations. It is no figure of speech to say that the hope of millions of people in other States of the Union and in foreign countries is to see California before they die. The jaded merchant, the tired farmer, and the sickly student of the East long to see the rich mines of gold and silver, the immense wheat fields, and the lovely orange groves and vineyards of this golden State. Immigrants from all other parts of the world are flocking to our shores in such numbers that, unless California was the largest State in the Union, there would soon be room for no more. To them it is a proud boast to be a Californian—to us it should be the same. Abusing one part of the State and crying up another will do us no good. In the end the immigrant sees and judges for himself. We all belong to one State. Let us be brothers in unity. Knowing as we do that no words of tongue or pen can do justice to our soil, our climate and our resources, let us look upon him who vilifies and cries down any part of our State as an enemy to us all. Truth will prevail. A FARMER.

Los Angeles, Cal.

Smother out the Morning-Glory.

EDITORS PRESS:—In 1874, while living at Marysville, Yuba county, I had in my potato patch about one-fourth of an acre of morning-glory, which I tried for two or three seasons to subdue, by hoeing it down as fast as it made its appearance, but it gained upon me all the time. I then, after taking off the potatoes the last of June, had manure from the slaughter-house hauled and spread all over the piece, from four to eight inches deep, and let it remain till the following March, when I had the manure removed and spread over one and one-fourth acres. I raised a fine crop of potatoes and effectually killed the morning-glory.

S. BLODGETT.

Ben Lomond, Santa Cruz Co.

HORTICULTURE.

Sickly Fruit Trees.

EDITORS PRESS:—While engaged in pruning fruit trees for some time past, I have noticed the sickly, feeble, unthrifty appearance which most of them present, indicating plainly that they are in a decline, and need prompt and vigorous treatment. The trunks of the trees present a rough, scaly appearance; no roots are seen near the surface of the ground, a condition essential to the healthy growth of any tree, and the tops present a mass of stunted, crooked, dead, gnarly, knotty, broken limbs, devoid of leaf buds, but overloaded with fruit buds. This condition of fruit trees may not be common in other counties of the State, but in all the orchards which I have examined in Monterey county this is the rule, while a clean, healthy, vigorous fruit tree is the exception. It is very rare to see a fresh growth of healthy wood in the tops of any fruit trees which have been long in bearing, showing plainly that there is a lack of humus or plant food in the soil. In short, it is evident that trees are starving for want of food, and especially for want of potash.

While pruning a small orchard in Salinas City a few days since, I noticed one large, fine-looking, thrifty tree, which stood near a pile of manure which had been thrown from the stable, while not 60 feet distant stood other trees of the same variety, having a stunted, sickly aspect.

In another instance that came under my observation, ashes had been thrown from a leach-tub near a pear tree. This tree presented a clean, healthy appearance, and had made a vigorous growth of fresh wood, while another pear tree, but 30 feet distant, presented just the opposite appearance.

No tree or plant will grow and thrive without an abundance of foliage, which is to the tree what lungs are to an animal; and an abundance of leaves will not grow unless the roots can come near the surface of the ground and find air, warmth and plant food. Roots which strike deep into the soil go down for moisture, mineral food, and to anchor the tree to the ground.

No orchard can be expected to remain long in a healthy, prosperous condition, which is being constantly cropped, either by its own growth or, what is too frequently the case, with some additional crops.

In order to maintain its vigor and usefulness, there must be an application of fertilizers; and nothing is better for this purpose than barn-yard manure, scattered liberally all over the ground, before the annual rains. Cleanings from the stables and droppings of stock contain all the essentials needed to insure a healthy growth of both tree and fruit.

It would be a good plan, where it can be done, to dig about a tree to the depth of from 15 to 18 inches, and at a distance from the trunk of 2 to 3 feet, according to the size of the tree, throwing into the excavation broken crockery, bones, broken glass, old shoes, grass and weeds, mingling therewith a liberal supply of ashes, leached or unleached, and surface soil. A vigorous pruning should be given to the tops, cutting off half to two-thirds of the long, slim limbs, thus encouraging a growth of foliage and of fruit near the body and large limbs of the tree. Most trees are carrying too many fruit buds and not enough leaf buds; and to allow fruit to grow at the extremities of long, thin limbs is simply to insure their breaking down, to the very great injury of the whole tree.

In some orchards I have noticed a sort of gangrene in the ends of limbs, causing them to die, in some instances one-quarter of the length of the limbs. This dead part, together with all dead sticks and decayed branches, should be cut off down to the living part, or to the crown or collar, which is the only true place to cut off a limb. Where the trunks of the trees have become scaly, rough and mossy, they should be thoroughly scrubbed with a preparation of unleached ashes, salt and water, made into a thin wash, and applied with an old broom.

Where the roots of trees have become deeply covered by repeated turning of furrows to the tree, as is too often the case, or by a deposit of soil about the tree where lands are overflowed, this soil should be removed, as no tree can long endure with its roots buried deep in the cold, damp soil. It will be found, if forest trees be examined, that their roots are near the surface, many of them being exposed above the surface. The practice of cropping the orchard with garden vegetables, as is sometimes done, cannot be too highly condemned, especially where Chinamen are permitted to grow them, for they utilize every foot of the ground, taking all the cream from the soil and returning little or nothing thereto. Garden vegetables are very exhausting to the soil. J. S. TIBBITS.

Santa Rita.

FORESTRY.

Fire Notices.

EDITORS PRESS:—Hon. C. Cole, formerly U. S. Senator from California, now residing in Los Angeles county, was born and brought up at Lodi, Seneca Co., New York.

The Senator has noticed the disastrous results attending the frequent fires on the watersheds of the Cahuenga mountains behind his Brea Rancho.

These fires have been followed, as they are everywhere, by destructive torrents and diminished springs. The Senator visited not long ago his birthplace in Seneca county, and he speaks of the changes that have taken place there as most alarming. Because what has happened there in a comparatively moist country with an unevenly distributed rainfall must be anticipated here from similar causes, where these effects would produce a desert uninhabitable by man.

He says that a stream with a rapid descent and ample flow of water ran through that county, upon which were situated numerous mills, about a quarter of a mile apart, run by water-power.

On his return he found the stream dried up, pastures where the millponds had existed, and, of course, not a single mill run by water-power. The forests and woody glades in which he had roamed and hunted as a boy had been cut off and were no more.

Those who sympathize with the work of the State Board of Forestry, in its attempt to put an end to the useless and criminally wasteful fires which are so prevalent upon our mountain watersheds, can obtain signs, warning against the setting of such fires, to place in their canyons or woodlands, by addressing me at Lamanda, Los Angeles county.

ABBOT KINNEY.

Protest Against Timber Waste.

At a regular meeting of the directors of the Los Angeles Board of Trade, held Monday, February 7, 1887, the following preamble and resolutions, offered by L. J. Mathews, were unanimously adopted:

WHEREAS, the waste, burning and useless destruction of the forests and brush on the mountain watersheds of Southern California threaten the agricultural population and the tax-paying power of the whole community; therefore, be it

Resolved, by the Los Angeles Board of Trade, that all the representatives in the State Legislature from this section are requested to take prompt measures to avert this serious danger.

Resolved, That a copy of this resolution be forwarded to each branch of the Legislature.

The resolutions have been sent to Senator Rose and Assemblyman Brierly.

Forestry in Fresno.

Over the signature "X." a correspondent of the Fresno *Expositor* furnishes facts and figures as follows concerning altitudes and natural reservoirs:

As there has been some inquiry concerning the various altitudes in Fresno, I send you those of various points on the road to Pine Ridge and beyond in Fresno county:

Name.	Feet.
Fresno City	250
Dry Creek Academy	680
Toll House	1925
Grape Vine Springs	2600
John Morrows	3800
Old Clipper Mills	4000
Old Phœnix Mill	4400
Donahoo & Humphrey's Mill	4700
Markwood Meadows	4900
Big Trees (Dinkey Creek)	6000

Examination shows that an altitude of 4000 feet is about the altitude where good milling timber is first reached, and that 6000 feet is about the highest altitude for milling timber. This shows the belt to which lumber timber is

restricted. However, the most important and valuable timber and brush to the country is that lying on altitudes from 6000 to 10,000 feet, which, for want of governmental care, is allowed to be destroyed. This is the great snow belt upon which we are dependent for water supply for irrigation. A great part of this belt is covered with thick brush and scrubby timber, which protects the snow from melting and stores up our water supply for summer use. If these are permitted to be destroyed it will lead to early and general thawing of the snow, which will rush down in heavy floods early in the season, to be followed by a failure of water supply, and the streams will dry up. The destruction to be feared is from overstocking these natural ranges with sheep which eat away the protecting brush, and from fires carelessly set by herders. This overstocking and carelessness will sooner or later affect our reservoirs. Some measures should be taken to prevent this destruction now going on, and the Government should refuse to sell any portion of these lands above the altitude of 6000 feet, and fix severe penalties for trespassing. It is a matter of importance that these natural reservoirs should be preserved, and it is none too early to call attention to it.

POULTRY YARD.

Caponizing—An Improved Method.

The old method, which required a horse-hair, skill and patience, has now been superseded by the improved instruments, which are so simple and operate so easily as not only to permit of their being sold at less than former prices, but a novice can soon learn. At our request, Mr. W. H. Wigmore, No. 107 South Eighth street, Philadelphia, kindly loans us the cuts, and describes the method as follows:

I would here state that the following illustrations were not drawn and engraved, but they were photographed from a live cockerel, and the hands shown are my own; besides, there was not a feather plucked from this bird's side. I generally bare enough of the flesh by wetting the feathers and turning them under as a man would in twisting his mustache. Figs. 6 and 7 are photographs of a dead cockerel. Each and every piece of my set is entirely new and original with myself. Any scoop-twister without "Patented June 22, 1886," stamped on it is an infringement.

First have a narrow table, box or barrel so you can move it around and get the sun on the fowl in any position you wish, as the sun is a great help to a learner. Lay the fowl upon its left side. Wrap the cord twice around the bird's legs above the knees. With one wrap they are liable to kick themselves out of the loop. This style hooks enables you to make a slip-loop quickly. The other cord, put once around his wings. The opposite ends of the cords, attach to a half brick or a weight of some kind, then let them hang down over the sides of the table as shown in Fig. 1; by this means you have them secure.

FIG. 1.



FIG. 2.

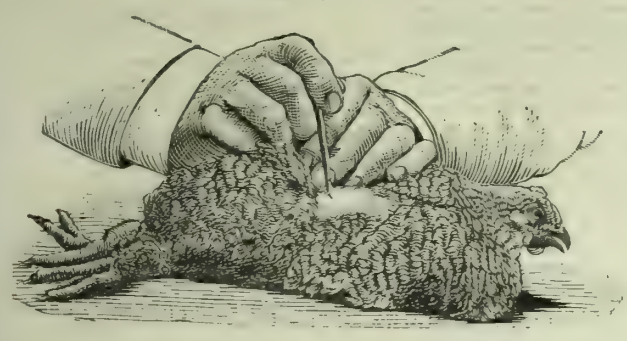


FIG. 3.

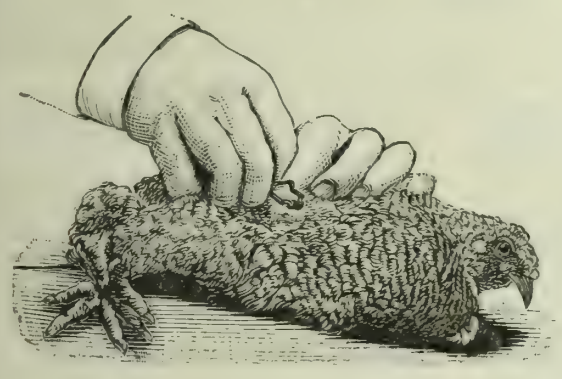
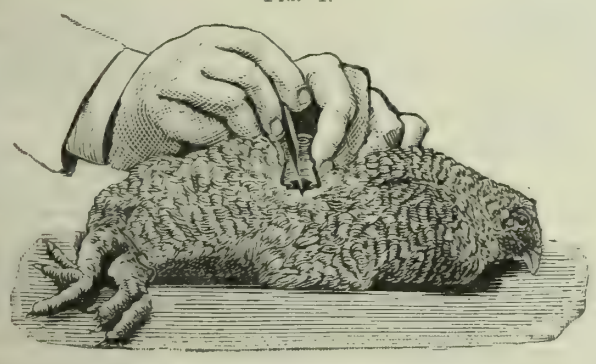


FIG. 4.



Wet the bird's side and feathers with cold water to prevent bleeding, and it will also make the feathers stay where you want them, by twisting them under as a man would his mustache. This will enable you to perform the operation without pulling a feather. Pull the flesh on the side down toward the hip, so when the operation is over the hole between the ribs will be entirely closed by the skin going back to its place. Therefore the opening in the skin will be three-fourths of an inch above that between the ribs, enabling the wound to heal up in a day or two. The incision must be made between the first and second rib, about ½ inch. When you are ready to cut, push the point of the knife in quickly ¼ of an inch, and hold it there a second, as the bird will work his ribs up and down just at that moment; then he will become quiet, when increase the cut half an inch. See Fig. 2. Lay the knife down, keeping the skin in place with the left hand. Now you are ready for the spreader. See Fig. 3.

Take the spreader between the thumb and first finger, press it until the two ends come together. Then insert the hooked ends in the incision with the spring ends toward the bird's feet. Now turn the spring part toward the bird's back, making sure to have the hooks between the ribs. Hold the spreader in position with the left hand. Take up the knife again. See Fig. 4.

Increase the opening by cutting toward the backbone, and forward on a line between the ribs, until it is large enough to admit the free passage of the scoop-twister. Care must be taken not to go too near the backbone. After a little practice you will be able to do this cutting and draw little or no blood by cutting on a line with the veins instead of crossing them. Should they bleed much, wipe it off with a damp rag or small sponge before you tear open the thin skin. Otherwise the blood will run in on the testicles and make the lower one harder to find. Take up the scoop-twister. See Fig. 5.

FIG. 8.

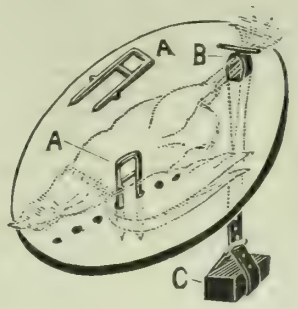


FIG. 5.

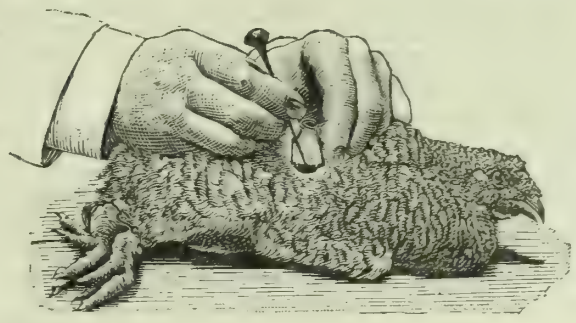


FIG. 6.

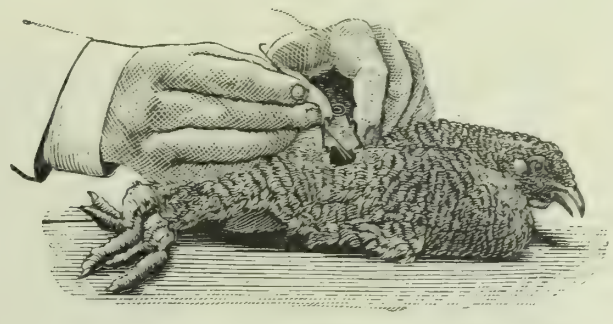
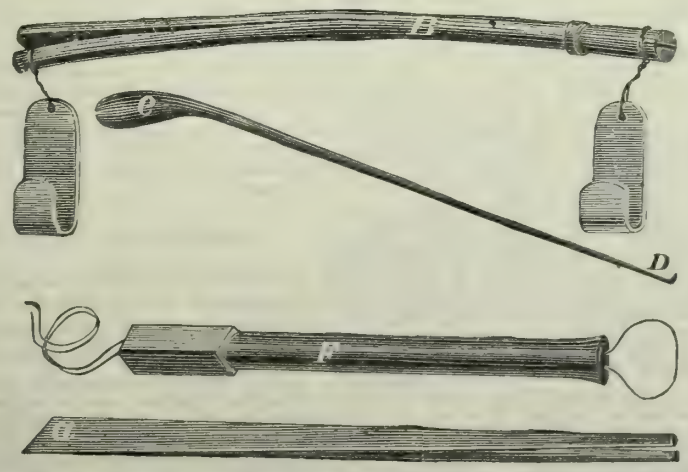


FIG. 7.



FIG. 9.



WIGMORE'S METHOD OF CAPONIZING AND TOOLS EMPLOYED.

With the hook end tear open the thin skin until you have the right testicle well in view, and plenty large enough to press the scoop-twister through.

This hook must be used with care, or you may puncture an artery or the bowels.

Take the probe in your left hand. With the ring handle push the bowels aside, and just below you will see the left testicle. Introduce the scoop-twister with your right hand (see Fig. 6), catching the lower or left testicle endways in the scoop as shown in Fig. 7.

Gently shake it to get it all in, and make the spermatic cord settle well down in the slot. Then begin to twist the testicle off. At this point learners will find the probe very valuable for keeping the testicles in the scoop, as it sometimes slips out, also for preventing the bowels being twisted up by the scoop. A number of these difficulties disappear with a little practice. An experienced person will find little or no use for the probe.

Now remove the right or upper testicle, same as the left. Both testicles are shown in Fig. 7, to give you their exact position. The left testicle should always be taken out first, as it is the hardest to remove. If you remove the right one first and cause the bird to bleed, it will run over the lower one, then you cannot see it as well, and will have much more trouble in getting it out. But when the left one is out it will not be over ten seconds before you have the right one out. I find most beginners want to remove the upper one first. They say they have a better view when the right one is out of the way, but that is only an excuse.

Many people like to do the easiest part first, therefore, I insist on the lower one being removed first.

If you should leave a small piece in by not getting it all in the scoop properly, put the scoop in again and catch it in the slot, even if it is no larger than a pin's head, as these are the pieces that produce slips.

If the testicle is very large, which you will find is the case with a four-months'-old Leghorn, take the scoopful out; then go after the balance until you have it entirely out.

If you cause much blood to flow, spoon it out with scoop-twister. The next day after the operation, if you find they have a windy swelling, just run a darning needle through the skin and it will all escape. Sometimes I just let them go and they come all right themselves.

If you should cut an artery in the operation, they are just as good for food as if they had been bled in the neck. If all right after the operation, they generally have a passage.

Most every writer on capons says it is more humane to twist than to cut their testicles off. Cockerels can be caponized at any age, but the older the more liable they are to bleed to death.

The heaviest and largest capons are produced by crossing a Dorking cock on Brahma or Cochin hens. The largest, with two successive crosses, is to mate a Houdan cock with Brahma, Cochin or Langshan hens, and then mate the pullets of the cross with Plymouth Rock cockerels, which gives yellow legs and skin. A stronger, large pit game cock, mated with Brahmas, or any of the pullets of the above crosses, makes not only a fair-sized capon, but one that excels in meat on the breast. A Brahma cock on Cochin hens is also excellent, while Plymouth Rock cocks on Brahmas or Cochins makes a fine capon. Avoid such breeds as Leghorns, Hamburgs, Black Spanish or Polish for capons. The Wyandotte may be used on large, coarse hens, however, whenever desired.

Mr. Wigmore, in describing Fig. 8, which is intended as a board for holding the bird, says that *A* is a staple to slide over the bird's wings, with two lugs on, about one inch from the points, to prevent forcing the wings too close together, which would be the case without them. The bar crossing the staple in the middle enables you to use the upper part for a handle. One point is longer than the other, to make its introduction into the board much easier. With seven holes in the board it will take any size bird. *B* is a strap-loop, with a pin across the top, to prevent the strap from falling through the board when not in use. At the other end of the strap is a weight (*C*) for keeping the feet down.

Chinese Instruments.—The beveled knife, *A*, on the forceps, is for making the incision. The whalebone, *B*, with a hook at each end, is the spreader for holding the wound open. Hook, *D*, is for tearing the thin skin open. Tube, *F*, with horsehair at the end, is for sawing off the testicle. Spoon, *E*, is for scooping out the testicles after they are cut loose, also for spooning out the blood. This set, I consider, takes great skill to operate with. I believe very few persons have patience enough to learn with this set. There are numerous other sets on the market, some of which are a trifle improvement over the Chinese. See Fig. 9.

The only instruments used are a knife, probe and scoop, the scoop being the one that does the work, as it not only catches and holds the testicles, but takes them out, as well as avoiding injury in any manner.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

A Visitor from Maine.

Temescal Grange had a full meeting on Saturday, February 19th. Every officer of the Grange was present. The meeting was made very interesting by the presence of visiting Patrons, including Brother Daniel Field, of Auburn, Maine, and members of Eden Grange. The first degree was conferred upon William and Nellie Webster, after which the Grange remained in session in the first degree, and under the Good of the Order, Brother Field was introduced, with a few remarks of welcome by the Master, wishing him to feel much at home with the Patrons of California.

In response to the request to address the meeting, Brother Field made a first-rate speech, saying that he enjoyed meeting with Patrons in California for the reason that, although 3000 miles from home, he felt that Patrons were one great family which reaches from Maine to California. Our work, sentiments, and feelings seem to be alike all over the Union. We strive for the same purpose and benefits for ourselves and the welfare of mankind. There are evidences of advancing prosperity of the P. of H. in Maine and other States.

The Order has brought forward and educated representatives of farm interests, to better speak for and maintain their rights, and farmers now more frequently find their way into office and positions of trust, for their own and the public interest. Ex-Governor Robie, who visited California with the Grand Army of the Republic at their recent encampment, and who has made an exemplary Governor, probably would not have been put forward and elected Chief Magistrate of his State but for the Grange and his good record as Master of the State Grange. His gubernatorial term ended, he has now resumed his labor of love for the Grange, and is repeatedly lecturing in the cause wherever he can do most good.

Being asked if it is true that more intoxicating liquors are drunk in Maine on account of having prohibitory laws there, he stated very positive evidence to the contrary, and showed that the law was retained by an immense popular vote. He counseled giving the elective franchise to women, and also more extended privileges in the administration of educational and social affairs.

Having met Bro. Webster in the East, while visiting the National Grange, it was now a gratification to see his son and daughter following their devoted father's footsteps into the Grange. The children of the farm should be encouraged early to come into the Grange. They should enter the fraternal circle for their own good, the good of the Grange and the happiness of themselves and parents.

Bro. Field, who is President of the Patrons' Mutual Aid Society of Maine, explained the great benefit the association had been to the families of departed Patrons, stating his belief that such an organization would much advance Grange interests here.

National Lecturer Mortimer Whitehead was mentioned in the highest terms by Bro. F., who believed a visitation by the National Lecturer in California would be highly enjoyed by the Patrons, and largely effective of good. Members of the State Grange of Maine, appreciating Bro. Whitehead's effective lecture-work, thoroughly surprised him by the presentation of a service of silverware, thus, for once, fairly getting the start of the wide-awake Lecturer. Bro. Field's statement that Bro. Whitehead is one of our very best Grange orators, and one whose bright, genial countenance bespeaks the entire frankness of his nature, was emphatically indorsed by Sister Webster, who also met Bro. Whitehead in the National Grange.

Bro. Field, who is over 70 years of age, appears well preserved in mind and body, and just such a genial Patron as would be welcome to every Grange circle. He has been an attendant at nearly all the meetings of the State Grange of Maine, and repeatedly at the National Grange. He comes to California for the benefit of Sister Field's health, and to visit his son in San Francisco, and other friends in the State.

The Worthy Master, on behalf of the Grange, expressed the hope that Bro. Field and wife would often meet with Temescal Grange; thanked the brother for his attendance, also the members present from Eden Grange, who had kindly joined in giving Bro. Field a hearty greeting. The hope was also expressed that Bro. Field's report eastward would be so favorable that a successful effort would be made to have Bro. Whitehead early visit our coast, by invitation of the Patrons of this State and others on the route that would be greatly benefited by his eloquent and earnest words in the cause of the P. of H.

Bro. Chester, secretary of the State Grange and Master of Eden Grange, having been called upon, expressed pleasure at being present and listening to the brother from Maine, who he hoped would go about visiting our Granges, both doing and getting good. He closed his well-timed remarks by calling out, on behalf of Eden Grange, their "leading orators," Judge Blackwood and Past Master O. Dennis. Bro. Dennis, with his usual becoming modesty, declined the oratorship of Eden Grange, and then made a remarkably good speech, mentioning the necessity of greater unity in the Grange in exercising the elective franchise in these times, and need of constant labor and unyielding fidelity to the Order. We shall pass on, but the Grange will remain, and through it our work here will continue to bless our own children, and other children of the world, long after we have gone. Well done, our labors will thus bring their never-ceasing reward. He was glad Bro. Field bore record of the good fruits of Grange education, and Grange confidence and co-operation in election affairs, through farmers voting for the best men regardless of party or boss rule. Patrons must make their voting power felt in regenerating governmental offices in this State and Union, and breaking up our fearfully increasing monopolies.

Brother Blackwood ably emphasized similar sentiments, to the pleasure and gratification of those present. He also spoke forcibly of the importance of receiving young people, to increase and invigorate our fraternal ranks and forward the march of true Grange progress.

After inviting the Eden brothers, in future, to bring their wives and daughters, according to their former custom, Sister Sheldon was called upon to represent the Matrons of Eden Grange, which was done in appropriate words. She urged that more thorough lecturing work be done in our State; that farmers should be more vigilant of their kindred interests and better attend the Grange.

Brother Goodenough, as a native of the State of Maine, indorsed very positively the statements of Brother Field as to the effect of prohibitory laws, as well as his plea in favor of woman suffrage, and made other pertinent remarks for the Good of the Order.

Sister Dewey believed the surest and quickest way to moral and social reform would be secured by woman suffrage.

Brother Kelsey spoke of the advocacy of Henry George (and socialists following his efforts) for placing the tax for all Government revenues on land, until land shall be forced out of the hands of monopolists, saying that such unjust and harmful doctrines should be strongly opposed in the most effective manner possible.

The defeat of Clunie's Fire Insurance and anti-Compact bill was mentioned, and the statement made that in effect 20 per cent, or more, additional premium is now being paid on a large proportion of fire insurance risks in California than was paid before the combination.

Brothers Frink, Bagge, Renwick, Sewell and others made brief and very acceptable remarks during the meeting.

Brother Dennis invited all Patrons to attend Eden Grange, on Saturday, Feb. 26th, at Haywards, when the questions of women's legal rights and suffrage will be discussed.

March 5th, Temescal Grange will confer the second degree, and expects to receive additional applications for membership. Patrons visiting or sojourning in Oakland, San Francisco or vicinity, are always invited to attend.

Our report is given from memory and by no means to be taken as *verbatim*.

Grange Social at Santa Rosa.

EDITORS PRESS:—The entertainment given by the members of Santa Rosa Grange, at the Grange hall, on the evening of February 14th, was a great success. There was a large attendance and all seemed to have an enjoyable time. The members of this Grange are already preparing for the entertainment of the State Grange next October.—OCCASIONAL.

The affair, so briefly disposed of by our valued correspondent, was noticed at length by both *Democrat* and *Republican*, from whose appreciative reports we cull as follows:

The Grangers have long been known as a social people. They have not often given the public an opportunity to know how friendly they are. Therefore those who are not members of the Order, but were fortunate enough to attend the social given by the younger members of Santa Rosa Grange, Monday evening, were somewhat surprised at the fun.

About 70 persons responded to invitations to meet at Hahman hall, at 7:30 o'clock. There were no silk trains nor flashing diamonds, but there was what more conduces to the enjoyment of all—a disposition to make each and every individual feel at ease and enjoy the hilarity, social pastimes and good-cheer of the occasion. The accomplished and handsome young ladies in charge had covered the floor with canvas and engaged Park's band for the dancers, so that all inclined to engage in that diversion had splendid opportunities, which were fully improved. Others enjoyed themselves with cards, charades, puzzles, and the full share of chatting that is an inherent part of such amusements. At 11 o'clock a splendid supper was served. During the evening a branch postoffice distributed a liberal supply of valentines to the members of the company, provoking much merriment. It was 1 o'clock in the morning when the band played "Home, Sweet Home," and there were not a few who wanted to stay and have more fun. All who were present agreed that the younger members of Santa Rosa Grange are entitled to much praise for the success of the social. Santa Rosa is to have the session of the State Grange this fall, and there is no doubt that that august body will be as well entertained by the members of Santa Rosa Grange as were its guests of last Monday evening.

Woman's Title to Her Home.

"A Butte County Woman" appeals, through the *Record-Union*, to our law-makers:

There exists to-day a law in the statute-book of California that is a shame and disgrace to the State. You are inviting families to come over and settle up its broad acres; and while you are doing this I have come to ask you if you will not also aid in defending the homes already established here.

All homes built upon all lands in this State, excepting U. S. homestead lands, belong wholly and entirely to the husband. No matter how faithfully the wife has toiled through all the best years of her life to help make that home, no matter how much time she has given to its inward and outward adorning, she has no legal right to it whatever. Her husband can convey it away from her and their children without her knowledge or consent, and leave them dependent upon the world. Shame on you, law-makers of California, for such a law as this!

Not many months since I stood by one poor toiling woman whose home had been lost to her for three years, and she had just been informed of the fact. Interest had been added to principal. Youth and strength had long since left her. A look of anguish and dismay had settled upon her face that will haunt me while memory lasts.

Looking out from that fair valley home, and to the encircling hills beyond, she queried thus: "What can I do to release from the grasp of that legal robber this home which is rightfully mine?" Nothing could be done. All was gone—irretrievably gone!

Other women have I seen who have been thrust out from their homes, attended by small children, to gain a living as best they could. And so I say to you law-makers now assembled at Sacramento, that unless this law is changed you will soon have an array of pioneer pauper women in your midst that will be pitiful to behold. Too old to build anew, hope and ambition gone, they will eke out an existence as best they can, and sink at last into unmarked graves. This is no fanciful picture; it is truth.

These women came to California in the long ago by sea and land—came with youth and health upon their brows. They have given all their middle life to the building of homes that are now the delight of Eastern tourists; but what is California doing for these aged pioneer women? Thrusting them out from these homes under sanction of law! Great heavens! Let us pray!

Yes, my toiling sisters, throughout the length and breadth of California, let us pray! Let us go to our law-makers and plead with them for the total extinction of this cruel and unjust law. Let us entreat of them, in the name of all that is holy, in the name of mother, wife and sister, to deal justly with us. Let us tell them that this law is a great injury to the best interests of this great and growing State; that it is sowing the seeds of discord in many homes, leaving dark shadows upon many thresholds that time will never obliterate. We will tell them the State homestead law to which they refer us has never been heard of by one-half the women of the State, and when heard of by those whose homes have been stolen from them, it is too late then to seek its protection; that its application to any home brings with it distrust and alienation.

But we will implore them to make during the present session of this Legislature a law that will give to all women throughout the State a legal title to their homes, whether built upon railroad, school or mineral land. Let the law so read that all such homes located upon these lands shall not be conveyed away from the wife, either by assignment or mortgage, without her consent and signature. We shall find among these law-makers young men who, during the months preceding the autumn election, passed among our mountain pines, seeking legislative honors, and glorying in the title of Native Sons. They threw out these inspiring words to other young men, who caught the inspiration and gave them the coveted prize. Can these Native Sons forget the Pioneer Mothers?

Success of the Citrus Fair.

The *Morning Call*, one of the most careful in its judgment of our San Francisco dailies, has the following friendly and appreciative words in review of the Central California Citrus Fair:

A good deal of inclement and, consequently, obstructive weather was experienced during the holding of the San Jose Citrus Fair. This was the first exhibition of the kind in that locality, and the people were not to be prevented from patronizing it, although it might in some instances prove to their discomfort. They attended not only from different portions of Santa Clara and surrounding counties, and, in fact, from all parts of the State, but also from the East. The display at the fair is represented from all quarters to have been creditable in the highest degree. The word "citrus" did not by any means limit the scope of its attractions, which were of a pleasing variety, including manufactures as well as natural products.

The object of the fair was fully accomplished. As we have had occasion heretofore to remark, in alluding to enterprises of a similar character, it enlightened the residents of that section of the State as to its capabilities in the way of soil, climate and industry, which knowledge had not obtained before. As to the Eastern attendants, they were delighted. They had, doubtless, heard much about California, but could not have realized that they would be treated to such an exhibition in the floral, horticultural and vegetable kingdoms in the mid-season of winter. The managers of the fair are gratified to know that it was a grand success in all its features, and will serve as another advertisement to attract people from all parts of the country to California as excursionists and permanent settlers. The people of Santa Clara have received such encouragement in this, their first fair, that we already hear their intention announced that it shall be annually repeated.

We will add that the credit for this great success is mainly due to members of the San Jose Grange, as leaders and managers, together with some personal friends. It is a well-known fact that this fair, with its extraordinary good effects for the welfare of the farming community and the property-holders and business men of San Jose and the Santa Clara valley, would never have been held, but for the organization of the San Jose Grange.

Starting a Grange.

The following instructions how to start a Grange, written three years since by W. M., James Draper, have been lately reprinted, in response to many petitions, in the *American Grange Bulletin:*

The Grange is emphatically a farmers' institution, and any person engaged in agricultural pursuits, and having no interest in conflict with the purposes of the Order, of the age of 14 years, and of good moral character, is eligible to membership.

Before attempting to organize a Grange, the parties should realize the importance of the work, that the responsibility may be assumed with due deliberation; for it would be better that no organization be attempted if the members do not propose to carry out the objects of the Order in full faith to themselves and the other members of the fraternity.

The number required to secure a charter for a subordinate Grange is not less than nine men and four women, nor more than 20 men and 20 women.

The membership fee for charter members is $3 for men and $1 for women. The regular monthly dues are 10 cts. for each member. This sum may be increased by a Grange if the amount received is not sufficient to pay the expenses of the Grange, such as hall rent, printing, stationery, postage, etc. There are no other demands upon the membership of the Order.

How the Money is Spent.

Of the sum received at the organization of the Grange, $15 goes to the National Grange for a charter and outfit. The balance remains in the treasury of the Grange, excepting that the Deputy organizing is entitled to a reasonable compensation for his services and expenses.

Of the sum received for dues from its members, each Grange pays to the State Grange 20 cents a year for each member on its roll-book.

Of the money thus received by the State Grange, one-fourth of the amount goes to the National Grange to defray the expenses of that body, and the balance is used to meet the running expenses of the State organization.

This shows that the expense of maintaining the largest and most important agricultural organization in the world is not only exceedingly small but is reduced to as small a sum as is consistent with its practical and successful working operation.

The First Steps.

After securing the co-operation of such persons as are in favor of organizing a Grange, write to the Master, Secretary or some Deputy of the State Grange for the necessary blanks, and make an appointment for him to meet the company at some convenient place, to explain the principal objects of the Order and the benefits to be secured to its members through united effort. If a sufficient number are present at this meeting, and are ready to organize a Grange, the Deputy can proceed at once and perfect the organization at that meeting.

During the time intervening before the reception of the proper documents from the National Grange, a board of officers can be elected, a hall or other suitable place for holding the meeting selected, and the various committees appointed.

In about a week or 10 days after the first meeting, the documents having arrived and officers been chosen, another meeting is to be called for the installation of officers, at which time the Deputy will be present to perform that ceremony, and give all necessary instructions in the organic law and ritualistic work of the Order.

Thus organized, the Grange is ready to go forward in its chosen work of elevating the calling of the American farmer, seeking the improvement of its members socially, intellectually and financially, by every means within its power, and by its connection with the district and State organization it becomes an important factor in extending the influence of the Order, that it may obtain its highest glory and power to bless our race.

GRANGE ITEMS.—The *Patron* is informed that South Sutter Grange had a special meeting Jan. 29th, to confer the third and fourth degrees on a class of seven. County Lecturer Frisbie was present, and they had a Harvest

Feast and good time generally....Montezuma Grange installed officers Feb. 9th, in the forenoon; then had a feast and social talk, and in the evening held an open meeting, with addresses on the aims and doings of the Order by Bros. Pilkington and Overhiser....Sacramento Grange meets at 10 o'clock to-day (26th) to instruct a class in the first and second degrees, have basket-lunch at noon and literary exercises afterward, to which visiting Patrons are cordially bidden.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

It is admitted on all sides that another crisis is at hand in our history as a nation. Capital and labor are drawing the lines more severely with every passing day. Will the farmers of America rise to the occasion, and, conservative as they are, become the "go-between" for these two giants, show them *both* the evil of their ways, and mark out the safe, middle ground, where each can stand the equal of the other? Capital is absorbing our wealth, and labor wants all our land. Capital and labor both, in all parties, are asking for "free raw materials." The makers of fraudulent butter are combining to repeal our law. Merchants gambling in "futures" unsettle the value of our products. Discriminations in laws, taxes and transportation are *against* the farmer. We must demand *equality* in all things. Our national financial system is soon to be entirely reorganized.

Will it be for the people or for capital? Our transportation questions are as yet unsettled, yet we are winning some of the final battles. Patrons, farmers, as a people and as a class, we never had so important duties resting upon us as now. Will we be equal to the needs of the hour? Will we be *united* and strong for the fray? Shall we continue to go forward or go backward? Our action, our work *now*, will help answer these questions. Let us realize our responsibilities.

Nerve ourselves for the labors, and seriously, aye, solemnly, enter upon the duties of the hour, remembering the charge, "Cast forth thy act, thy word, into the ever-living, ever-working universe; it is a seed-grain that cannot die; unnoticed to-day, it will be found flourishing as a banyan grove—perhaps, alas, as a poisonous hemlock forest—after a thousand years."

Senator Hawley, of Connecticut, lately delivered an address before the students of Hamilton college, in which he made some good points. Just such advice is found in the precepts of the Grange. "We demand respect for law and government from those who would destroy all government and solidify all property. * * * As educated young men, you must not forget that the Lord and your country have demands on you for what you have of talent. To be a politician in the best sense is second only to being a minister of the Lord Jesus Christ. The most cowardly thing on God's footstool is to run away from your Government. Though you may not be an active politician, keep informed in matters of politics. Always go to the caucus, the beginning of government. Know what is being done, and see that it is done rightly. Do your duty everywhere as scholars and American citizens, and everywhere above the plume and the bayonet shall wave the lilies and the palms of love and peace."

Even the organ-grinders that furnish the music on the streets of New York City have a trades union of 882 members. Unlike the Grange, and some other organizations, they are in favor of a "grinding monopoly."

The Hatch Experimental bill, appropriating $15,000 yearly to each State in the Union toward sustaining experiments in all matters pertaining to *practical* agriculture, has passed the Senate. The National Grange and the various State Granges have given their active support to this measure. It now becomes the duty of all good Patrons and progressive farmers to see to it that in some of our States this money does *not* go the same way that the appropriations made by Congress many years ago have gone; being absorbed and overshadowed by other colleges, and agriculture very much left out. Patrons, remember the plank in our platform which says: "We especially advocate for our agricultural and industrial colleges, that practical agriculture, domestic science and all the arts which adorn the home, be taught in their courses of study." It is easier to have the appropriation for Experimental Stations *start right* than it will be to get the money away again when it has once fallen into other hands. Act *now and act altogether.*

"The Order of Patrons of Husbandry is the grandest organization the world has yet seen for the elevation and education of the farmers and their families. Its good work is more apparent year by year."—*J. W. Lang, Executive Committee Maine State Grange.*

The foreign landlord is getting a firmer hold in our country every year. They do not even live among us, but draw their rents from American farmers, their tenants-at-will, in immense sums. The Duke of Sutherland, who is now in this country on a visit, owns 425,000 acres of land. He has a little patch of 1,358,000 acres in England. The Grange has already taken up this question of alien landlords. Our motto should be, "Not another acre of America's free soil for a foreigner who will not live among us, become a citizen, and share our dangers and our destiny."

Progress.

Four more new Granges—
Beaver Run, No. 813, Luzerne county, Pa.
Westminster, No. 228, Windham county, Vt.
Riverside, No. 507, Broome county, New York.
Laurel Dell, No. 633, Nebraska.

Sullivan Grange, Tioga county, Pa., increased its membership in 1886 from 14 up to 54 members, "with five more elected for initiation, and three elected for reinstatement."

L. F. Smith, Lecturer Grange No. 1111, Tennessee, organized June 17, 1886, with 22 charter members, writes: "We have been prospering ever since. We have tried the Order, and can cheerfully bear testimony to the fact that it is the best institution with which farmers can become identified."

Rhode Island has a Patron, if not a Grange. The postoffice address of the secretary of the last new Grange in Massachusetts is Woonsocket, R. I. It will soon spread "over the garden wall." Rhode Island's first Grange is already in sight.

Williamstown Grange, No. 85, New Jersey.—"We are initiating and reinstating members. We are now 11 years old."

Brother J. M. Blanton, Past Master Virginia State Grange and member of Executive Committee of National Grange, is in the field doing some "official" lecture work. He is an able speaker and always does good.

Thirteen candidates received the fourth degree at Rumford Grange, N. H., Jan. 24th, with installation by State Master, Brother McDaniels.

"We are in for a grand advance this year."—*A. A. Brigham, Secretary Massachusetts State Grange.*

"Thou canst not see grass grow, how sharp so e'er thou be,
Yet that the grass *has* grown, thou very soon canst see;
So, though thou canst not see thy work now prospering, know
The print of every work, time without fail shall show."

A FRIEND TO THE ORDER.—Referring to the recent organizing of a Grange in its neighborhood, the Northampton (Mass.) *Journal* says that it "heartily welcomes the new society to this vicinity. The organization of agriculturists and wage-laborers is a growing necessity, and the increased attention being paid to the demands of these classes signifies good and good only to the republic. They must be noticed and their demands for relief from the taxation of arrogant monopolies be met, sooner or later."

PLACERVILLE GRANGE.—The *Republican* gives notice that owing to the inclement weather the Harvest Feast of Placerville Grange, previously announced for Feb. 12th, was put off until to-day (26th) at 10 o'clock A. M. Members and others interested will note the change, and come armed and equipped as the law directs.

Shade Trees for Colusa Highways.

At a session of the Colusa county supervisors, held February 12th, the *Sun* reports, the following preamble and resolution were adopted:

WHEREAS, It is the province of the Board of Supervisors to encourage the planting of shade and ornamental trees on the public roads and highways of the county, under such regulations as they may adopt; therefore, it is, by the Board of Supervisors of Colusa county,

Resolved, That to any and all persons who will plant and cultivate shade and ornamental trees on any of the public roads and highways of said county, not less than three rods in width, shall receive for each and every tree thus planted and growing at the age of four years the sum of $1; provided, that the trees shall be planted in regular rows a distance of at least 20 feet from each other, and not more than four feet from the boundary of the road or highway; and provided further, that the county shall in no manner be liable for any injury to trees thus planted, but the same shall be protected at the expense of the persons planting the same, until it is satisfactorily proven they have reached the age above stated, and been accepted by the Board of Supervisors.

JAPANESE ORANGES.—A reader of the RURAL who has had some experience abroad calls our attention to the fact that there is a wonderful wideness in the value and desirability of different varieties of oranges propagated in Japan, and that a purchaser of trees which are brought from Japan should act with caution and use every means to determine that the trees he is buying are really what they are represented to be. We were shown circulars issued by large propagating companies in Japan, in which young orange trees are quoted all the way from *five cents* to *one dollar* each, and considerable discounts from these prices at wholesale. This, of course, opens the way for dishonest importers (if there are any) to bring a five-cent tree and claim that it is of a variety selling for a dollar, or of some other fine variety, or to bring cheap trees and sell them very low and still have them dear at the price asked, while other trees would be cheap at a much higher price. We state these facts simply to put tree buyers on their guard, and to advise them to take every means to prove that they are really buying what they desire to get. The same remarks would apply to other kinds of nursery stock as well as Japanese.

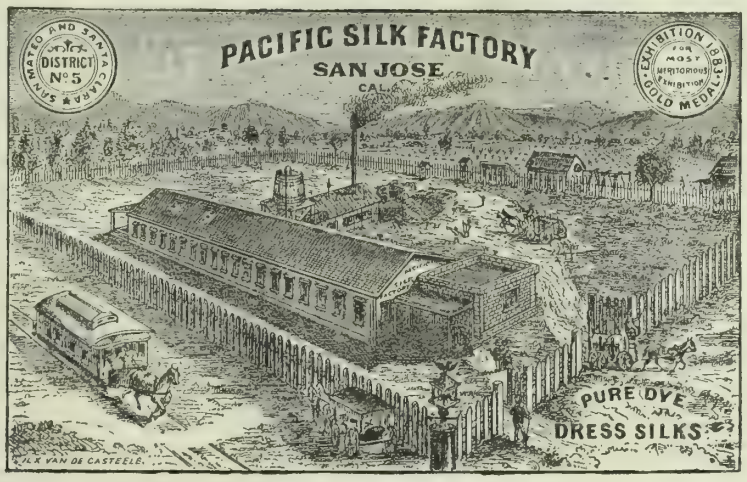
YOU can make your own "gas fitters'" cement thusly: Melt up 4½ pounds rosin, 1 pound beeswax, and stir in 3 pounds Venetian red; it will hold gas in.

SERICULTURE.

The Pacific Silk Factory.

Our San Jose correspondent, in his notes on the Citrus Fair on page 176 of this issue, gives a description of the silk exhibit and some notes on the industry. Thinking our readers might like to have a view of the establishment, we insert an engraving on this page. The following notes are condensed from a recent article in the San Jose *Mercury:*

The Pacific Silk Factory is located on the corner of Delmas avenue and San Salvador street, in the western portion of this city. The factory was established about five years ago, and is owned and run by H. X. Van de Casteele. The main building is 40 by 150 feet and contains the necessary machinery and 17 looms, of which ten are power and seven hand looms, and the daily capacity when running in full is 180 yards of black dress silk, gros grain and rhadame. Twenty-five experienced and imported laborers, consisting of men and girls, are employed and work by the piece—that is, by the yard, and earn from $1 to $1.75 per day. Necessarily some of the employes do day work. Generally the factory is run the year round, and the product is in the neighborhood of 55,000 yards of silk, representing $125,000. The very latest appliances in silk manufacture are introduced in the factory as soon as their utility is acknowledged, by which the management competes successfully with Lyons, France. The goods manufactured find ready market all over California, in Chicago, Philadelphia, Boston and New York. California does not produce enough silk to run even this factory continuously, and hundreds of dollars are sent abroad annually to Italy and Japan for the raw material. The climate of California, and the absence of atmospheric disturbances are peculiarly favorable to silk culture. Of the many kinds of silk-worms, no one produces a



quality of silk equal to that of the California worm, whose product brings a good premium in Philadelphia and France.

It would require a technical knowledge of machinery and mechanical terms to intelligently describe the appliances which are in operation at the factory, and which when described would not be interesting reading matter for the average reader. It is sufficient to say that the machinery for the operations of weaving silk is necessarily so delicate and accurate in construction that the slightest accident is called to the attention of the operator, by the stopping of that part of the machinery, which of course is automatic, where the fault exists. Mr. Van de Casteele kindly explained the application of the different machines to a *Mercury* reporter yesterday and expressed himself freely in regard to the industry. California, in his judgment, is the home of the silk-worm, the equality of the temperature and the absence of lightning and thunder, which kills the worm in large numbers when at certain ages, renders it ex tremely simple to raise the worm. The season for worms lasts from 45 to 60 days, and is a good field for any one who will make a proper experiment and raise cocoons, for which there is a good market in San Francisco. The Pacific Silk Factory, besides receiving the gold medal at our fair, has received a diploma at a Philadelphia exhibition.

The Silk Board.

The monthly meeting of the State Board of Silk Culture was held Feb. 19th, Isaac Trumbull presiding.

The secretary, Mrs. Rienzi, reported that she had received a large number of letters from numerous counties of the State asking for information regarding the silk industry. The inquirers live all the way from Shasta to San Diego, and several Australian letters were also received. About 1500 (Italian variety) mulberry trees have been distributed during the month. Twelve thousand white mulberry cuttings were also distributed.

The board will be able to distribute the eggs of French annuals by April. Three lots of these eggs are now on their way here. One lot is from France, another from Lombardy, and the third from Tuscany. They have all been microscopically examined by scientists, who pronounced them pure and placed their seal upon them.

The secretary reported that the new reeling machines were working admirably, and that several applications for positions as pupils had been received. There are now six pupils in the school of the board on Montgomery avenue.

One Swindle Pilloried.

Chief-of-Police Crowley has issued 5000 copies of the following circular, to be posted in every room of every lodging-house in this city:

Strangers in San Francisco, Beware of Mock-Auction Swindles.

The places in which they are held are fitted up as jewelry stores, with show-cases, safes, etc. The stock in trade consists of a varied and brilliant assortment of brass and white-metal watches, averaging about $3 in value. These places are opened for the express purpose of swindling strangers whose attention is attracted by the red auction flag attached to the door. Within you will see the bogus auctioneer, apparently auctioning off a watch; standing in front of him are several men dressed in farmers' or workingmen's clothes. They are apparently bidding, but they are the bogus auctioneer's cappers. A gold watch is put up and one of the cappers buys it very cheap. Another gold watch is put up, and the auctioneer descants upon it until you bid. The capper runs your bid up to $20, $30, $40, or as much as you will stand, when the watch is knocked down to you. You pay your money and get a guaranty that assures you the watch is "gold on a coin basis." This means that it is thinly gilded.

You are then approached by another of the cappers, who, while admiring your purchase, suggests that you have it tested, whereupon this capper leads the way to a poorly stocked jewelry store in the neighborhood. The clerk, who is also a confederate of the swindlers, asks you if you wish to have the watch tested. Upon your assenting, he takes the watch and proceeds to test it with acid. In a few minutes he informs you that he has tested it and demands $3, which you have to pay to get the watch, when he informs you it is brass. You find that you are swindled, but the capper suggests that you return and put the watch up for auction again, and not let on that it is brass, and that you may get more than you gave for it. You take his advice and pay the auctioneer for selling it, when it is promptly knocked down to a capper for about $2. Your friend, the capper, whose advice you have taken, is gone, and you are swindled again. The above is only one illustration of the many swindles resorted to by these mock-auction establishments, and is intended to prevent strangers in the city from being victimized.

We are thankful to note this action on the part of the authorities. Would that the dens of the Peter Funks were the only pitfalls against which warnings are needful! Among the score of cheats, by means of which the unwise and unwary are cozened, none is more pernicious than the lottery, in whatever form and however advertised, whether overtly, or disguised in reading notices, or masquerading as illustrated correspondence. We hope that legal measures will soon be enacted, potent to reach all unprincipled and venal persons who can be hired to aid tramontane sharpers in deluding and fleecing our foolish people.

COLFAX GRAPES IN LONDON.—The Placer *Argus* says that an English tourist stopped at Colfax last fall long enough to take with him four boxes of grapes, which he had ordered by telegraph the same evening of Mr. Whitcomb. The order was filled somewhat hurriedly and the fruit duly transferred and paid for. Nothing further was thought of the matter until a letter was received from London, England, written by the party who had bought the grapes, saying that they had arrived in excellent condition. This was rather surprising to Mr. Whitcomb, as he had no idea the grapes were to be subjected to so severe a test of their shipping qualities, and had neglected certain precautions which otherwise he would surely have taken, as, for instance, surrounding them with cork-dust.

OAK timber grows in abundance in Tulare and orders from along the line of the railroad, for the timber, are constantly coming in. A considerable quantity of wood is being shipped almost daily in response to this demand. The Tulare *Times* says: The roots and other portions of the trees which are not suitable for firewood and fence posts could be utilized as charcoal. There is no reason why the burning of charcoal should not be a profitable industry in this county. One of our citizens has already tried it and found it to pay. The demand for charcoal in this State is large and constantly increasing. We look with confidence for the time when our magnificent oak forests will be a source of vast wealth.

THE prospect for the future in this State is not surpassed by any other section in America. Each year brings to notice some new products of the soil unable to be produced in any other State. All these wonders constantly attract the attention of the enterprising and industrious settlers from all parts of the country. This city is in its infancy, in respect to the position it will some time occupy in reference to commerce, manufactures and trade. To the enterprising, prudent and wise young merchant, a bright future is in store; a prosperous and successful career must inevitably wait upon him. The next 20 years will see California one of the most prosperous States of America.



The Violet.

[Written for the RURAL PRESS by FANNIE H. AVERY.]

A violet sighed—it had its woes,
As well as do God's human flowers,
And sometimes bitter, restless throes
Disturbed the quiet of its hours.

It grieved just now because its lot
Was lowly placed and seemed confined:
It longed to be what it was not,
And do some work of noble kind.

Sweet violet! it did not know
That it possessed a wondrous dower:
A dower that neither high nor low
Could excel in uplifting power.

For as it mourned, and breathed its sigh
Fraught with rich fragrance on the air,
The perfume brought a passer-by
Associations dear and rare.

It woke thoughts of a dear one gone,
Whose mortal part lay 'neath the sod.
It called to mind an absent one,
But best of all brought thoughts of God.

Mrs. Mallie Stafford.

Those friends of Mallie Stafford, who hitherto have known her only through the stories and verses she has contributed to our Home Circle, will be pleased to see the likeness we present herewith. It served as frontispiece to "The March of Empire," the little volume of her sketches of early days in California and on the Western frontier, published two or three years ago.

Mrs. Stafford first came to the Pacific Coast with her husband in October, 1854, and the opening chapters of the book relate incidents of their voyage hither by way of the Isthmus. Their embarkation at Panama is described as follows:

How lovely is early morning in the tropics! An early breakfast enabled us to take a stroll along the beach. This was the day of departure, and already the fine steamer Golden Gate lay anchored in the offing. The bay of Panama is one of surpassing beauty. The gleaming shore, shell-strewn and even, slopes gently to the water's edge, reflecting, in its transparent beauty, rock, shells, islands and the myriad boats that float upon its surface. The bay abounds in islands, green and lovely, and almost burdened with a wealth of tropical verdure. Here are ornamental and picturesque haciendas, owned and occupied by the wealthy Dons. Through field and meadow roam their fat herds, and goats and sheep climb nimbly about upon the overhanging rocks, giving to the lovely picture an air of homelike beauty. In the offing lay moored numerous vessels—sailing ships, barks, steamships, etc.—and noticeable among them was a large British man-of-war. Her ponderous hull and ominous portholes, from which could be distinctly seen the mounted cannon, frowned darkly over the green surface of the bay. How fragrant was the breeze, blown shoreward from the islands! It was perfumed with an aroma of spices, oranges, the sweet scent of the coffee tree and the myriad odors of the fascinating tropics. Here everything suggests indolence, luxury, abundance. No busy hum of trade and commerce, no stir and strife of progress and improvement disturbs the ease-loving natives. The poorer classes, as a rule, collect the mango, the cocoa, the yam, the plantain, and other wild fruits for their living, and for their dress, but this was a matter which seemed to be of minor importance to them, a yard of cotton cloth being generally sufficient for a full suit.

It was not long after sunrise when preparations for embarking began to be made. The bay, gently sloping out to deep water for a distance of a hundred yards or more, was so shallow that even the small boats could not reach the shore. How were we to traverse this intervening stretch of sea? With us there was no modern Moses, who with a wave of his rod could bid the waves roll back and leave for our willing feet a dry roadway to the vessel. In my wanderings it had been my fortune to have been familiar with the various modes of travel known to christendom—steamship, canal-boat, flatboat, stage-ride, horseback, muleback—but the means necessary to be employed in order to reach the small boats was a "new departure" from any style of traveling which I had heretofore known. As the Central American native seems to be, to all intents and purposes, an amphibious animal, it was necessary, as the only available expedient, to call into requisition his services for this important undertaking. Previous to this many of the ladies had thought that a muleback ride comprised the realization of the horrible. What, therefore, must have been their despair when they saw that, in order to traverse that sheet of intervening sea, it was necessary—unavoidable—to take that celebrated "post-back" ride with which all early Californians are acquainted, either through experience or rehearsal.

The scene on the beach was one never to be forgotten. It is photographed on my memory with imperishable fidelity. Beyond, in the offing, lay the grand steamer, her officers and crew busy in making preparations for a speedy departure. Near by were the small boats, manned by swarthy natives; and on the beach were crowds of passengers and piles of baggage and freight. Among them all moved the dusky, half-nude figures of the natives, intent on making as many ten-cent trips (the price of transportation) as possible. The outlook was anything but desirable. Anxious faces looked seaward, and trembling voices inquired if the boats could not be "got nearer." Ladies looked dismayed, and fat people—men and women—were in despair; but whatever feelings of repugnance or fear we may have had to this novel mode of traveling had to be thrust aside. It was one of the things inevitable, and the placid bay was soon disturbed by the lithe figures of the natives, bearing their novel burdens to the boats. What a medley of voices!—screaming and crying and laughing, not to chronicle any harsher expression of feeling. A thin, slender native offered his services to an aldermanic old gentleman. "Me pack Mericano—ten cent," said the native. "O God bless me!" puffed the old gentleman, "I'm afraid—I'm afraid, my good fellow, I'm afraid you couldn't just stand up to it." "Oh, me pack—me pack," insisted the native. The gentleman, seeing no better opportunity, accepted of his services, but his thin shanks trembled visibly, and when, about half-way to the boats, the native slipped, it brought a terrific scream from the frightened voyager.

As we were all burdened with our traveling



MRS. MALLIE STAFFORD.

equipments, each tried to take what they could. As a consequence, many an article was dropped by its frightened owner and went bobbing over the smooth surface of the bay. Gripsacks, hand satchels, shawls, etc., were seen occasionally floating on the waves. They were, however, generally recovered by the agile natives. By the small boats we were conveyed to the ship's side, where a pair of steps were lowered to the water's edge, and by this means we ascended to the deck. If the sea happened to be rough, it was with great difficulty that the boats could keep their position near enough to the steps, in which event there was danger of losing one's footing and slipping between; fortunately we had no serious accident.

After the completion of the railroad across the Isthmus a stanch wharf was built by the company, and vessels since steam up to the wharf, receiving and delivering freight and passengers without the inconvenience which the early emigrant experienced. A gentleman whom I met years afterward, and who had shortly before visited the East, remarked: "Well, the railroad is completed across the Isthmus. The passengers step off the ship on to the cars—all very nice and very pleasant; but there's no more mule-back ride, no more post-back ride, and not a bit of fun." After much hurry and toil our gallant ship was freighted and filled, and a strong breeze having sprung up, the sails were unfurled, and under steam and sail she swung round and rapidly put to sea.

But our authoress had other and varied journeyings east and west, by team, by water and by rail, before she found her present *home* in Napa county, and different phases of experience are voiced in her poem,

"Across the Plains."

No more the long, unbroken trains
Of ox teams on the desert sands,
Bear onward, in the creaking wains,
The emigrant in weary bands.

The years that passed! the years that passed!
Bear witness to unwritten tales
And histories; for along the vast
Dim trackless sands and winding vales,
Once stirred, in Life's quick throbbing beat,
The tramp of many thousand feet.

They live with us, those years that made
Our young athletic State unfold
Her hidden powers of wealth, and laid
Her history in an age of gold.

And we, a part of that great throng,
Who bravely stemmed the threat'ning waves—
Or trackless waste, that all along
Was thickly marked with new-made graves;—
Oh, we cannot forget the old
Long journeys to the "Land of Gold."

To-day the shining track of steel
Stretches from East-land to the West.
We sit in gliding car and feel
The idle luxury of rest—
And templed cities, vast and fair,
Pass by like phantoms on the air.

But oh! our hearts cannot forget
The past—that is a part of us:
Those long-remembered times, which yet
Are sacred as the half-buried dust
Of those, who fainting found a rest
In the wild deserts of the West.

A Mean Fraud Miscarried.

While most of the swindling tricks we have to notice from time to time are played *upon* the "honest granger," we occasionally hear with regret of dishonest practice on the part of those who bring produce into market. For instance, a reporter visiting a large grocery in Santa Rosa the other day observed a young lady from the country just handing the polite clerk a milk-pail full of eggs. She remarked that they were sent in by a neighbor who had asked her to trade them off for sugar, tea and coffee. The clerk replied that he would trouble her to wait until he had counted them. He soon returned from the rear of the store, bearing the same pailful of eggs, and handed them back to the young lady, coloring up painfully. She asked him what the matter was. "The eggs are all bad," said he, "and we cannot take them." She made a few commonplace remarks and left the store.

Noticing the reporter's look of amazement, the clerk explained: "Yes, all those eggs—eight dozen—were bad; they were all taken from an incubator, after having remained bathed in the equalized heat of the apparatus for five days. I believe they have a way of telling after the fifth day whether the eggs will hatch or not, and, if the indications are unfavorable, they are taken from the incubator and, in such cases as you have just witnessed, are sent to the grocers. Now you see if we had not counted those eggs, we would have accepted them and perhaps you would have been one of the unfortunates to whom we would have sold a dozen or two." He added that such cases were frequent.

An attempt to pass worthless goods does not differ in principle from an attempt to pass counterfeit money—as we trust every one of our readers agrees without argument or question; and we should be sorry for the soul that had not self-respect enough to scorn any such meanness.

DANGEROUS DAINTIES.—A Carmelite lately gathered some mussels on the rocks, took them home and cooked them. He ate only three, but that small number came near being the death of him. He was soon taken with severe cramps, and his stomach had to be relieved by an emetic before he recovered. The *Argus*, noting the occurrence, adds an averment that the light of the moon has a dangerous effect on mussels, and they have proved fatal to more than one person eating them. We dare say it is risky to swallow the bivalves in question, but believe the alleged cause to be all moonshine.

A SUFFERER suggests that if there is any one who should be "rapped in slumber," it is the man who snores.

When Niagara Run Dry.

The remarkable snowstorm of Saturday, the 5th instant, reminds us of an extraordinary day of another character, as it appeared in Western New York. Thirty-nine years ago the coming spring a sight was witnessed at Niagara that was never seen before by that venerable citizen—"the oldest inhabitant;" neither had the memory of any such thing ever been handed down in the old folks' lore. It was nothing more nor less than an almost running dry of the great cataract, in which condition it remained an entire day.

A writer who lived near the falls wrote of it soon after substantially as follows:

The winter of 1848 had been one of the coldest on record. The ice was of enormous thickness. One day—I think it was near the end of April—a very stiff northeasterly wind came, and its force was so great that it moved the great fields of ice, then entirely separated from the shores, up the lake, piling the floes in great banks as they moved. The sight of those ice banks is described by those who witnessed it as one of most awful grandeur. Toward night the wind changed to the opposite quarter and grew into a terrible gale. The lake's surface was packed with miniature icebergs, and these were hurled back by the gale with such tremendous force that an impenetrable dam was formed in the neck of the lake from which Niagara river flows, and the great current of water which finds its way from the lake, to be dashed over the gigantic precipice at the falls, was so held in check that no more than one-quarter of its usual volume could find a passage through the immense pack of ice.

As this pack was stubborn, it was naturally but a very short time before the falls had drained nearly all the water out of the river. This occurred during the night, and we people who lived in Niagara village knew nothing of the phenomena until next morning. I awoke very early that morning, with the sense of something exceedingly strange oppressing me. It was some time before I discovered that the feeling came from the fact that the noise of the cataract was almost missing. I jumped out of bed, and found that scores of others had been awakened by the same circumstance, and were hurrying toward the falls to see what the trouble was. We found that the great Niagara falls was only about one-quarter of its former volume.

The American channel had dwindled to a creek in comparison with its original proportions, while the British channel resembled some ordinary river in the droughts of August. Goat island was as big as two Goat islands, as the water had shrunk from every side of it, leaving a wide expanse of wet, slimy, jagged rocks, which no eye in that vicinity had ever seen before. The bed of the Canadian rapids, far out into the stream, was dry, as was the space between the lower end of Goat island, and out beyond the tower. The rocks thus exposed were black and forbidding, giving the dry river-bed the appearance of a track of charred stumps. The Three Sisters looked forlorn in their enhanced dimensions. The great jet of water which had, from time out of mind, leaped into the air about 300 yards south of this group of islands in the great rapids, and which is leaping there to-day, was not leaping that morning, and, as some one remarked that day, the tremendous roar of Niagara had subsided to a moan.

The scene was at once desolate, strange, and awful to contemplate. The picture will never leave my mind. The whole village was out exploring caves, dark recesses, curious formations in the rocks, and other remarkable features of the cataract and rapids that no mortal eye had probably ever gazed upon before. These explorations were made safely to the very brink of the Horseshoe rapids. This remarkable condition of affairs at the cataract continued all day, and showed no sign of a change when the people went to bed that night. When we arose in the morning, however, the old familiar thunder of the falls was again shaking the earth as before, and the river and rapids were again the seething, whirling, irresistible torrent of old. The ice in the lake had shifted again, and some time in the night the long-restrained volume of water had rushed down and claimed its own.

Chaff.

A BEETLE will draw 20 times its own weight. About once in 10,000,000 times a lottery ticket will do the same thing.

A LITTLE fellow went to a blacksmith's to see his father's horse shod. The blacksmith began to pare the horse's hoof, and thinking this was wrong, the little boy said, earnestly: "My pa don't want his horse made smaller."

A BOSTON lawyer recently met his match in a witness who was giving evidence about an old lady's loss of mind. Lawyer: "Did she look as I am looking at you now, for instance?" Witness: "Well, yes—quite vacant-like!"

"HABIT" is hard to overcome. If you take off the first letter, it doesn't change "a bit." If you take off another, the whole of "it" remains. If you remove another, it is not "t" totally used up. All of which goes to show that, if you wish to be rid of a bad habit, you must throw it off altogether.

YOUNG FOLKS' COLUMN.

Jeff's Fortune.

[Written for the RURAL PRESS by J. W.]

CHAPTER I.

Now, boys, if you would like to hear a true story of a boy who determined to make his fortune and succeeded, just listen while I tell you of my young friend Jeff.

Jefferson Easton lived in the western part of the State of New York. He was bright and intelligent, but, like most boys of his age, he loved outdoor sports better than his books and school. Jeff, as he was called, had a good father and mother, a brother Lawrence, who was five years his senior, and a little sister whom he called "Tot." Lawrence was vain of his appearance and extravagantly fond of dress, but, unlike his brother, he took an interest in his studies, and his great ambition was to "make a speech" or speak a piece on exhibition day at school. He was always on the lookout for some high-sounding poetry that would impress his companions with his superiority. He carried with him an old volume of Shakespeare, studying extracts from it to be quoted as opportunity offered.

Mr. Easton was a farmer in comfortable circumstances, and he expected his boys, out of school hours, to assist him with the work of the farm, and as they grew older to share the responsibility of "looking after" things, as is usual with farmers' sons.

Lawrence's duty was to milk the cows. He disliked this work and looked forward to the time when Jeff would be old enough to take his place. He would start out for the pasture, pails in hand, grumbling to himself that some day he would find work better suited to his refined taste, and leave the drudgery to Jeff, who seemed to enjoy it. While milking he often recited aloud his choice selections. One day while performing his disagreeable task, he became very enthusiastic over his last new piece, and now and then would stop his work for a moment to gesticulate. Suddenly the unappreciative cow switched her tail in his face, causing Lawrence to make some ungraceful gestures, and to exclaim "Great Scott! I would not stand that;" and so saying, he firmly tied the offending tail to the fence, then proceeded to finish his recitation, as well as the milking, going from one to the other till the five cows were milked, and he felt relieved to think that his unpleasant duty for one more day was done. On meeting his father the next morning he was surprised at his angry manner as he demanded an explanation of the cow's unusual appearance; when it suddenly dawned upon our young orator that he had forgotten to release the cow. So, after waiting impatiently, she, like Bo Peep's sheep, had left her tail behind her.

Each year Jeff showed more plainly that he had an enterprising disposition and often declared that he would never settle down to the quiet life of a farmer, but would seek his fortune in the far West. These outspoken resolves rather displeased his father, for he had reckoned on Jeff stepping into his place on the farm and being a great comfort to him in his old age, and, with his energetic spirit, proving himself more useful than his brother.

The boys, by way of encouragement, had each a pig given to him, with which to do as he wished. When Jeff's pig was grown he took it to market and sold it, and then bought sheep, and so afterward traded till in time he was the owner of a fine pair of oxen. He worked faithfully for his father, and rendered every assistance to improve the old homestead, yet fully determined when of age to start in life for himself, his aim being to reach California. He reckoned that with what money he could save and that which he expected to get by selling his oxen he could make a very fair start. My friend was deliberate, energetic and determined, and when he had fully decided which was the best plan he persevered until he had accomplished the desired end. At last the longed-for time had arrived. On the morrow Jeff will be a man, free to act for himself, and, although he loved his father and mother as much as ever, he was still determined to leave home and seek his fortune. As each evening farmer Easton, with his family, gathered around the cheerful fire in the sitting-room, they formed a happy circle, but on this night a chilly feeling seemed to pervade the atmosphere. In one corner stood a small old-fashioned trunk and beside it a carpetbag. On the trunk sat Jeff, looking very serious, for early on the morrow he was to leave the old home and say "*good-by*" to the loved ones. Do you wonder he looked sad?

"Some one is knocking. Open the door, Tot," said Mr. Easton.

Neighbor Blake was ushered in. Jeff had anxiously waited his arrival, as he was to bring him $120 in payment for his oxen. He handed the money to Jeff, saying: "Be careful, my boy. Don't throw that in Salt river."

Jeff counted the money and put it in a little, old silk purse, which he twisted about his finger, quite satisfied that all things were now ready. His father looked sadly at him, and said: "You may feel happy now, my son, but in a few months, when you have spent all, you will be ready to say, like the Prodigal, 'I will arise and go to my father,' and will gladly return to your work on the farm, a poorer but a wiser boy."

"Don't discourage the lad, Easton. It won't do any good now, and it's a bad plan to throw a wet blanket over his prospects. Give him a chance to try his luck," said neighbor Blake.

Jeff's mind was too much occupied with his plans to allow him to sleep soundly that night, and he arose with the sun, dressed, sat down on the side of his bed and tried to collect his thoughts. He looked around at the familiar objects, perhaps for the last time, and his heart almost failed him. So he got up and busied himself arranging his boyish treasures, which he must leave behind him, as if he expected to return to them again. Then he went downstairs. Many were the words of good advice which Jeff received from his mother; many were the charges, also, as, "Write often," "Come back soon," and last, but most emphatic, she said, "Take good care of my carpetbag and be sure and bring it home with you."

Finally "good-by" was said, and amid tears and kisses, Jefferson Easton turned his back on the only home he had ever known to go forth among strangers.

CHAPTER II.

Jeff's plan was to go to Nevada, the then "booming State" of the Union. He thought he could find work on his way by which he could replenish his purse, and, by economy, furnish supplies sufficient to enable him to go up in the mountains, while he prospected for gold, which he never doubted he would soon find, and fully realize his boyhood's dream. Travel was slow in those days, and by no means either safe or sure, for the "red man" had almost entire possession of the Western States, and meant to keep it if possible, and for that reason the "pale faces" had to keep out of reach of their arrows or lose their "scalps."

Before long the money in Jeff's purse began to grow decidedly less, and he soon found it would be necessary for him to look around for employment.

One day, in the course of his travels, he came to a stream in which were floating some logs. He succeeded in securing them and got them on the bank. He then walked along in the direction from which they had drifted, knowing that they must have come from some mill. Walking on, he soon saw in the distance what proved to be a sawmill. As he approached, he met a man who evidently was the owner of the place.

"Good morning," said Jeff, pleasantly greeting him. "I found some logs in the river just below here, which most likely belong to you. I drew them out of the water, but thought I would inquire before making use of them."

"You are welcome to all that you find below the dam, as it does not pay us to go after them," was the reply.

From this time Jeff went each evening and secured the stray timber, and it was not long till he had quite a wood-pile. "Now," thought he, "I cannot take this wood with me, and can make no use of it here. I must turn it into cash. I will see what I can do. If the man at the mill will not buy it from me, at least he might pay me for the work of hauling it back to the mill."

His industrious and persevering spirit so pleased the man that he not only bought the wood, but offered to give him employment.

Jeff gladly took advantage of this opportunity to increase his funds. He worked hard and saved his wages, spending only for actual necessities. After working some months, he thought he had enough money to travel on; so he informed his employer that he intended to proceed on his journey, and, thanking him for his kindness, he made another start westward.

On he went toward the mountains, meeting occasionally with Indians, often with miners, with whom he sometimes stopped a few days and learned what he could from them, so as to profit by their experience. But he never forgot the object for which he set out—to find the wonderful gold mine.

Slowly but steadily he kept on, month after month, now working, now traveling. He sometimes met men who, like himself, were prospecting, and they would travel together, or rest awhile and hunt and lay plans for future action. It was said of Jeff by those with whom he came in contact, "Young Easton is a good fellow, but so fickle, he never sticks to anything very long; he is up and off before you know it."

They did not know that what appeared to them to be want of stability was really steadfastness of purpose and untiring effort to become an independent, self-reliant person—a man of one aim but not one idea. Many are thus misjudged and misrepresented by careless observers, who, on slight acquaintance, will condemn the truly worthy.

One year had now passed since Jeff left his home, and more than a month since he had heard from the folks, and some weeks since he had written to them. While sitting by the camp-fire, thinking of those he loved so far away, he saw an Indian coming toward him. The Indians were occasionally hired to carry letters to the miners in the mountains, and they expected to be well paid for them, when delivered. Jeff hailed him with delight as he handed him a package. He hastily glanced over each address, selecting one with his mother's familiar writing, and eagerly opened it. As he did so, a 25-cent currency stamp dropped from the letter, which his mother had inclosed, saying she thought he was out of money and could not buy paper and stamps, and so had been prevented from writing to her.

Jeff slipped the money in his pocket, and read on, as, "How fast 'Tot' was growing," "how the crops were coming on," and "how they all missed him at home."

That stamp was all the money Jeff ever received from home, and that he never spent.

[CONCLUDED NEXT WEEK.]

GOOD HEALTH.

Diet for the Aged.

Dr. H. C. Wood, in the *Annals of Hygiene*, gives the following: The teeth in old age are, of course, lost, and they should, unless under exceptional circumstances, be replaced by artificial teeth, for the thorough chewing of food is even more necessary in the old than in the young, because in the old the digestive powers are apt to fail. With the best artificial teeth mastication is apt to be imperfectly performed, hence the food of the aged should be soft and readily comminuted, and especially should it be of easy digestion. Very few old people need stimulating diet; very many are injured by an excess of nitrogenous food. The kidneys, like all other organs, are feeble, and if meats and other rich foods are used in excess, they greatly increase the strain upon these organs. Milk and milk products, or preparations of breadstuffs cooked with milk, should form a large proportion of the food of the ordinary aged person, but individual peculiarities differ so much that personal medical counsel should in all cases be taken, so that the diet may be regulated to the needs of the individual case. Very many old people are hurt by the use of food in excessive quantity; but little exercise can be taken, all growth has ceased, and the bodily furnaces which make heat are able to destroy but very little of food fuel.

Some little time since I had occasion to lecture on this subject at the Philadelphia hospital, and an assertion that I then made that most old people are more comfortable, enjoy better health, and probably live longer for the use of wine, has met with very severe disapprobation at the hands of some of the profession, whose strong sympathy with the temperance movement dominates their judgment. No valid reasons have, however, so far as my judgment goes, been brought forward to lead me to change my opinion. In the overfed American people the habitual use of wine during youthful or middle age and vigorous health is, we think, an injury rather than a good; but when the powers of life are failing, when digestion is weak, and the multitudinous small ills of feebleness perplex and annoy, one or two glasses of generous wine at dinner aid digestion, quiet for the time being much nervous irritation, and in no way do harm. The sum total of ruin wrought by alcohol in the world is appalling, but it is not lessened by shutting our eyes to the good that wine, properly used, may achieve. When in the aged there is a distinct failure of vital power, and especially of digestive power, the call for the habitual use of alcoholic liquors is, in my opinion, imperative. The danger of the formation of any evil habits when a man has crossed the line of 70 is so slight that the most conscientious physician need not hesitate in recommending the daily use of alcoholic beverages to his patient.

VINEGAR AND INDIGESTION.—It is the business of the saliva to digest starch, and by its alkalinity to stimulate the secretion of the gastric juice in the stomach. It is well known that the saliva is unable to act upon starch in the presence of an acid. Experiments have shown that even so small a quantity of vinegar as one part in 5000 appreciably diminishes the action of saliva upon starch. One part in 1000 renders it very slow, and twice the latter quantity arrests it altogether. From this it is evident that vinegar, pickles, salads, and other preparations in which vinegar is used, are unwholesome, especially when taken with farinaceous food, such as bread and other grain preparations. There is a popular notion that by the use of vinegar a tendency to increase in flesh may be antagonized. The physiological fact that fat is largely formed from the starchy elements of grain and vegetables, rather supports the popular notion; but this method of reducing weight should not be encouraged, as the loss of flesh is secured at the expense of good digestion.—*Good Health.*

PIMPLES.—Hearty eaters are more subject to pimples, especially on the face, than those who are somewhat abstemious in their diet. Persons who are troubled with pimples should eat simply to satisfy the wants of the body, but avoid anything like gluttony. Select good food and put aside articles that will disturb or retard digestion. Greasy, oily substances, an excess of sugar or butter, and coffee or tea have a tendency to interfere with the action of the stomach and intestines, and clog the blood with matter that cannot be disposed of readily by excretory apparatus. Keep the skin clean, too, by frequent bathing. For the removal of pimples, there is nothing better than a solution of salicylate of soda—a teaspoonful of the powder dissolved in a three-ounce vial of water. Use as a lotion; it is the best preparation to secure a beautiful, healthy skin which can be used, and the cheapest.

THE population of the State has increased considerably in the year 1886, between 30,000 and 40,000.

DOMESTIC ECONOMY.

Tested Recipes.

[Written for the RURAL PRESS by ADA E. TAYLOR.]

Stewed Tomatoes with Onions.—Mince a small onion very fine and fry slightly in a spoonful of butter; add one tablespoonful of sugar, half a teaspoonful of salt, and quarter of a teaspoonful of pepper, and boil together one minute; then add a quart can of tomatoes, stew half an hour and serve. If liked thick, a small cup of bread-crumbs may be added 15 minutes before serving.

Cup Custards.—One quart of rich milk, four eggs, one small cup of sugar, a little salt. Boil the milk, beat the whites of the eggs to a stiff froth; then add the yellows and beat again, then stir in the sugar and salt, pour in the hot milk slowly, and beat quickly while so doing. Pour into small cups which have been set in a dripping-pan; fill the pan with boiling water after it has been set into the oven. The custard may be flavored with any kind of flavoring. Bake them slowly, testing after the first 20 minutes with a straw; the moment it comes out smooth and dry it is done, but the more slowly they are baked the more creamy they will be. Eat hot or cold. If the milk is fresh they will keep two days easily, and be better the second one.

Corn Fritters.—These, though made in this case from canned corn, will be found almost as good as those from the fresh. Drain the liquor off of a can of corn and chop the grains very fine in a chopping tray. Add to this paste one cup of milk, a heaping tablespoonful of sugar, and one of melted butter, one teaspoonful of salt and a saltspoonful of pepper, and two tablespoonfuls of flour. Beat very thoroughly and fry by the spoonfuls on a hot griddle, with considerable lard, or they can be dropped into boiling lard and drained.

Strawberry Meringue.—Make either puff-paste or a rich pie-crust, roll a third of an inch thick, and cut into a round, the size of a large pieplate. Bake to a light brown in a quick oven, and when done, while still hot, lay on it a pint or more of strawberries which have been rolled in sugar. Have ready the whites of three eggs beaten as stiff as possible, stir in three tablespoonfuls of white sugar, and spread it over the strawberries. Return to the oven and let it bake till just tinged with brown; eat cold but fresh.

Jelly Pie.—One tumbler each of jelly and water, three tablespoonfuls of cornstarch, yolk of one egg, a small tablespoonful of butter. Boil jelly, butter and water together, then thicken with the egg and cornstarch, moistened in a little cold water. Pour into a pie tin lined with a nice crust, bake till the crust is done; then beat the white to a stiff froth, adding a tablespoonful of sugar, spread over the pie, and set in the oven till a delicate brown.

Frosting for Cake.—Take the whites of two eggs, one cup of sugar, juice of one lemon; beat together till light, spread on the cake, and set in the oven a few minutes. Do not beat the whites before adding the sugar.

RESTORING PLUSH.—It is customary to use ammonia for the purpose of neutralizing acids that have accidentally or otherwise destroyed the color of fabrics. This must be applied immediately or the color is usually imperfectly restored. After careful use an application of chloroform will bring out the colors as bright as ever. Plush goods and all articles dyed with analine colors, faded from exposure to light, will look as bright as ever after sponging with chloroform. The commercial chloroform will answer the purpose just as well. This chloroform will be found very useful, as chloroform, which is quite cheap, readily restores the color of faded plush garments.

HOW TO BRIGHTEN PICTURE FRAMES.—Picture frames will often look as though they needed regilding, when all that is necessary to improve their appearance is, to apply with a soft brush a mixture of white of eggs, two ounces, and one ounce of chloride. King's yellow and Indian yellow, if shadowed with burnt amber and gamboge, produce a very good imitation of gilt. Defaced gilding, if the result of the dust adhering to the surface, will look bright and new by being coated with wet fuller's earth, and on this drying it should receive a coating of ox-gall with a sponge.

TO KEEP LEMONS.—Lemons are a very cheap luxury for those living near cities, or having easy access to rapid transportation, and can be kept fresh for months by putting them into a clean-tight jar or cask, and covering them with cold water. Keep in a cool place out of reach of sunlight, and change the water often—not less than every third day; every second day is better. Lemons are excellent for winter use, or if one is bilious or inclined to rheumatism.

IVORY MAY BE CLEANED by scrubbing with a new soft tooth-brush, soap and tepid water, then dry the ivory and brush well, dip the latter in alcohol and polish the ivory until it has regained its former sheen. If the water gives the ivory a yellowish tint, dry the object in a heated place. If age has yellowed it, place the object under a bell-jar with a small vessel containing lime and muriatic acid, and set the whole in the sunshine.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, February 26, 1887.

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The Week.

A succession of storms, variable winds, brief intervals of sunshine and white frosts during the clear nights comprises the weather program for the past week in Northern and Central California. There has been a chill in the air, which some think "bracing" and others deplore, but which is of industrial value in repressing the too forward blooming of the fruit trees. Already some trees are snow-white or blush-pink with their expanded blooms, and a dash of snow which has fallen on the higher lands and the cold air in the valleys will tend to prevent too general indulgence in spring-time adornment. In the south the rains have continued at intervals and confirmed the prospects of abundance. The weather has interfered with travel and mail delivery, the northern route being blocked part of the time by the snow on the Sierras and the southern route disarranged by washouts in the valleys. Apart, however, from these temporary ills the situation in our industries is satisfactory, and a few days of warmer weather will thaw out all classes of our population into activity and revive all lines of business. It looks as though the year will prove one of great advancement for the State and of profit to our citizens.

The Legislature.

The atmosphere around the State Capitol for a few days past has been thunderous and squally. The attempt of the House Committee to discover how a bill had been surreptitiously advanced on the file has led to an explosion, several seats are shaky and some of the members move around as if on earthquaky ground. It is the rule to place a bill on the file according to its numerical order, and it can only be removed from that line of regular sequence by a two-third vote. It now seems that several members have attempted to bribe one or more of the clerks to put certain bills in the advance of the file. It is a serious charge, this of attempting to mar the regular order of business in this way. Every member caught bribing clerks to tamper with the file should be instantly expelled and sent home to his constituency as damaged goods. Common decency demands this, and the Legislature that attempts to whitewash a member may as well speak for its shroud. It will not do to pitch two or three clerks over the wall as a sacrifice for the sins of the Legislature. It is a sneaking, corrupt practice, and any one who is unscrupulous enough to attempt to loot the treasury and plunder the people by such venal arts should be made a spectacle to evil-doers. Gentlemen of the committee, turn up your gas and make a thorough search. The people are in no mood to tolerate a dark seance performance in this matter.

It is a remarkable fact that up to Monday Governor Bartlett has had submitted for his signature only four bills, two of which were for the payment of expenses for the Legislature, as the result of 50 days' debate and talk in both houses. Only a few more days of the session are left; time is precious and business pressing, and yet the Assembly hall last Saturday afternoon would have done credit to a lunatic asylum. Could the people of the State have looked in upon the way these members were engaged in earning $8 per day, they would have felt inclined to abolish the whole body. Think of a legislative body where the cries of "rats," "shut up," and much more of that sort of slang rent the air. The Chairman was pelted by the members with huge balls of newspapers. Members were brought before the bar of the House and punished by being laid on the table. Yells and cheers were indulged in, as if a lot of hoodlums had captured the chambers, and all this scene of confusion and disgrace lasted for nearly two hours. Public business was never more grossly neglected nor the people more shamefully outraged than by this "legislative" racket.

Since the last issue of the RURAL the Senate bill repealing Section 1422 of the Civil Code, relating to the appropriation of water, has passed, and the Assembly bill introduced into the House by Wright, of Stanislaus, has passed that body. Should these bills become a law, as now seems likely, the legislators who claim on the one hand that irrigation will be made possible, and on the other that all the water of the State will be seized by monopolists, will have a chance to learn something of the measure. The fact is, the complexity into which this question has been thrown by laws and decisions of courts is apparently too great to be unraveled and straightened out by a Legislature with a thousand bills on hand and only 60 days to work in. The Vrooman Dynamite bill has passed both houses. It has been carefully prepared, and will possibly check the reckless and malicious handling of this powerful explosive.

THOSE RABBITS.—The Zealandia arrived without any of the Australian rabbits whose expected advent caused so much alarm among the friends of agriculture last week. But hares are not rabbits, and rabbits are *not* hares, though some small species of hare are popularly and improperly known in this country as "rabbits," and the opposition to the apprehended importation of burrowing rodents was based on sound principles and is not matter for ridicule.

The Value of the Sunflower.

The sunflower can readily be grown in almost every portion of California, and yet so few realize their worth as an agricultural product or their utility as an article of farm economy, that it is doubtful if more than one per cent of the farmers of the State have ever planted sunflowers with a view to determining their usefulness.

The time was when the sunflower was regarded in the same light as ordinary weeds. It was uprooted and tossed aside, but, within a few years last past, it has been demonstrated that the seeds are a most useful, as well as economical, article of food for poultry.

The experiment has been tried many times in some of the largest poultry yards in the Eastern States, and by several well-known parties in the same business in this State. In every instance, so far as we have heard, the result has been highly satisfactory; the crop has been prolific, and the value of the seed as a food for fowls has more than realized expectations. The flowers attain such an enormous size, and the stalks are so substantial, that both constitute an excellent fuel after the seeds are taken from the former. As an example of what may be done with the sunflower, it may be stated that several agriculturists of Santa Clara county have, for the past two years, regularly raised a sunflower crop for their fowls. Among these may be mentioned R. Greene and W. A. Bishop at Alma, C. W. Sturgis at Saratoga, and Thos. L. Vernon at San Jose. Last summer the first-named gentleman sent to the PRESS office two immense flowers, nearly a foot and a half in diameter, and which were subsequently placed on exhibition in the Mechanics' Fair. All the above named are actively engaged in fruit-growing, and to a limited extent general farming, and they speak in high praise of sunflower seeds for fowls. They assert that during the past two years their poultry has been unusually healthy, and the production of eggs has certainly been increased from 5 to 10 per cent.

The use of the seeds for feed was early suggested by W. Atlee Burpee, of Philadelphia, and O. S. Bliss, of Vermont, both of whom are veterans in agricultural life, and when first tried in Santa Clara county the results were watched by many with considerable interest. A few days ago Mr. Greene, while in the city, visited the PRESS office, and when spoken to upon the subject of sunflowers, said:

"I have planted them for two seasons past for the express purpose of securing the seed for fowls. The yield has, on each occasion, been large, and we now regard the seed as one of the best grains for the maintenance of the healthy and fine-looking poultry. It is medicinal in its effect and is very nutritious. Ever since we have been feeding the seeds to our hens we have had a larger production of eggs, and that, in connection with the continued excellent health of our fowls, is the best and most substantial recommendation. The kind of flower that has proved itself to be the best both for yield and quality is the 'Prize Mammoth Sunflower,' which I originally obtained from Philadelphia. It can be planted any time from March 1st to June 1st, depending somewhat on climatic conditions, and the hills should be from 3½ to 4 feet apart, one seed to each hill. Under ordinary circumstances, the yield will be from 35 to 40 bushels per acre. I consider the seed invaluable to my fowls and shall continue to plant it every season. If those readers of the PRESS who have poultry under their care will give the sunflower seeds a trial, I am sure they will agree with me in the matter, and bring profit to themselves in the improved health of their fowls and a larger number of eggs in the egg basket."

We would like to hear from other readers on the value of the sunflower, also the objections to it, if there are any.

From Santa Barbara County.

Mr. L. E. Blochman, whose business connections are with Weilheimer & Coblentz, of Santa Maria, called upon us last week, and talked in a very intelligent and interesting way of all that portion of the State. He says that previous to the recent rains, feed in the hill-country along the coast, as far down as Santa Barbara, was still in fair condition, owing to the moisture from the sea; but below that, it had all died out. In the interior of the county, also, it was dead; but the large feed of last year saved the stock. After the storm commenced, however, vegetation started again.

Mr. B. says there is not much cultivated grass, as yet, in their dairy region. Wheat, barley and maize are the crops chiefly raised, with pumpkins, etc., for fodder. Small white and butter beans are grown in great quantities in certain districts. The fruit possibilities of the county are great, and the approach of the railroad is awakening high hopes as to their horticultural future. In the valleys the soil is mostly light and sandy; the mesas are red land. Good land can be bought at from $15 to $35 an acre.

The artesian test-well at Santa Maria is likely to be started within a few weeks—sufficient funds, and even a surplus, having been secured.

Mr. Blochman takes great interest in the Signal Service, for which he has been a volunteer observer. He would like to see it placed under direction of the Secretary of the Interior, instead of the War Department, believing its efficiency and value would be enhanced thereby.

Stockton's Pavilion Located.

The question of leasing Washington square to the San Joaquin Valley Agricultural Society, to be used as the site of their pavilion, came up again at a special meeting of the Stockton City Council, Monday night. The large number of citizens in attendance showed the interest of the public.

The committee reported that two conferences had been held with the committee of citizens, and it had been agreed to recommend the use of Washington square for the erection of a pavilion to cost not less than $27,000, upon condition that such pavilion shall not be used for manufacturing purposes; that the building and grounds adjacent shall not be used on Sundays, except for meetings of evangelical churches; that no intoxicating liquors shall be sold or given away on the premises, except by exhibitors displaying their goods during the annual fair; that the grounds outside the pavilion be kept open for the use of the public at all times, except during the annual fair. The committee were also of one mind as to the way in which the duties and responsibilities of laying out, grading, planting and keeping the grounds should be divided between the city and the association. The only difference of opinion was regarding the period for which the lease or contract should be made.

On bringing the matter to vote, it was decided, eight to four, that the city grant the square by contract for a term of 20 years, reserving the right to extend the lease for 20 years longer, or to purchase the improvements, at their appraised value, at the end of the lease. By a like vote, the City Attorney and Judge Budd were instructed to prepare the contract and necessary ordinance, after which the Council adjourned.

The citizens present showed their approval by cheers. It is expected that the building will be commenced within 60 days, and finished in season for the fair next September.

San Jose Fair Matters.

Owing to the time required for the preparation of engravings, we are not able to give this week the pictorial review which we had intended, of notable exhibits at the San Jose Fair and other interesting sketches of persons and things in and about the Garden City. Next week we hope to have quite a collection of handsome views, with appropriate descriptions to present in our regular edition; afterward we shall collect these published views and salient points about the recent fair into an "extra," of which a large edition will be given complimentary distribution at home and abroad. The people of Santa Clara valley have shown much zeal and enterprise in the effort to make their splendid region better known, and it will not be without its reward. California is going forward in a most gratifying manner, and our desire is that the advancement should extend to every portion of the commonwealth. California is good enough all over for any one.

MATINS AT MIDNIGHT.—The *Delta* tells how, about 1 o'clock of a stormy February night, an immense flock of little chipping birds in a large oak tree in Visalia, near the electric light in front of an engine-house, attracted the attention of those near by their singing. It was raining hard and the darkness away from the light was intense. The little songsters evidently mistook the brilliant light for the first gleam of day-break, and, shivering on their perches, greeted what they supposed to be the coming day with songs of joy.

Taxation and Economy.

Taxation is defined to be a pecuniary burden levied on the property of the people for the support of the Government. It is a very clear definition, and yet there is no part of the mechanism of Government that has so perplexed and bewildered statesmen, financiers and political economists, as to shape and apply a good revenue system. The problem is to make it equal and uniform, to cause every one to contribute toward the support of the Government according to his means; to make the payment certain and as inexpensive as possible in collection, to have it levied at the time and in the manner most convenient to the people, and contrive it so as to take the least possible from their pockets. Sully, Adam Smith, John Stuart Mill, and many equally eminent men, have tried to solve this, and tried in vain, and yet one would think, to hear our law-makers talk, that it was a problem level with the capacity of a schoolboy.

It would seem at the first glance that all good citizens would gladly and promptly pay their quota toward the maintenance of the Government, and yet, perhaps, there is no duty that is more reluctantly performed. In earlier times the tax-gatherer was as odious as the hangman. The word publican among the Jews became a synonym of meanness. And that feeling has not wholly passed away. There is not an assessor who has gone through the county and city, making inquiry after property, who found it a pleasant task, and each could tell his story of the grumblings they heard, the rebuffs they received, equivocations to their questions, and perjuries black as midnight in rendering statements of property. In early times the tax-collector and the executioner traveled together, and a refusal to pay or an attempt to hide property met with certain death. Business would be lively among the undertakers had we such a system now. More than half the corporate property of the country would be clad in mourning and covered with flags at half-mast. At one time there was a law in Massachusetts, making a failure to pay taxes a misdemeanor, punishable in prison. The enlightened policy of our age has disposed of this arbitrary and cruel enforcement, and makes the tax a lien on the property.

One can easily understand why the tax-collector should be odious and the tribute paid reluctantly in despotic lands, but why are taxes paid so reluctantly now? One cause may be the natural aversion many have to paying their debts, but the real cause with a majority of our tax-payers comes from the fact that they feel they are not getting an equivalent for their money; that taxation has become unnecessarily excessive. Take as an illustration of the folly and extravagancies of the time the following partial exhibit of disbursements from the Harbor Improvement Fund:

Salaries of Commissioners	$18,808 33
Salary of Secretary	4,666 67
Salary of Assistant Secretary	3,427 50
Salaries of clerks in Secretary's office	2,836 41
Salary of Chief Engineer	6,000 00
Salary of Assistant Engineer	3,600 00
Salary of Draughtsman	3,565 00
Salary of Chief Wharfinger	6,000 00
Salary of Assistant Chief Wharfinger	3,600 00
Salary of Attorney	4,800 00
Salary of Superintendent of Dredging	4,800 00
Salaries of Wharfingers	60,689 73

Every one of these positions could be equally well filled at half the cost. The daily expenses of our Legislature exceed $5000, not taking into account the enormous waste in junketing trips and useless visitorial committees. Aside from the members of the Assembly, there are 95 names on the pay-roll of the Sergeant-at-Arms. The army of parasites, lackeys, waiters and the like employed by the two houses costs the people more than $1000 per day. Take another item. The amount awarded by the Joint Committee on Claims as damages to the property-owners on Telegraph Hill, whose lots have been injured by excavations made to provide material for the seawall, the Board of Harbor Commissioners pronounce to be exorbitant. But that is not all; the whole bill of damages is absurd and illegal. By what trick of logic can it be shown that the State is responsible for damages done to private property by contractors? These men agreed to construct the seawall and furnish their own material. The State did not specify the material should be taken from Telegraph Hill. The whole thing looks like a barefaced steal. Space would fail to catalogue the number of grab bills, running all the way from the Prefect of Sacramento, who claims he did something in 1850 and has not been paid, to the monumental cheek of the chap who wants $118,000 for decorating the Capitol on the occasion of the death of General Grant. And all this and much more of the same shrewd devices for looting the Treasury, augment the burdens of the tax-payers.

The Veterans' Home.

The Assembly of California has passed a bill granting $150 per annum for the care of such disabled and destitute Veterans as may be admitted to the Home at Yountville, and as the Senate will undoubtedly approve the measure, waiting Comrades will soon find the shelter and support applied for and so much needed.

In Washington the House of Representatives has passed the bill appropriating $100,000 to establish a Home for disabled Veterans west of the Rocky Mountains, the intent of the promotors of the bill being to turn over to the care and control of the General Government the Veterans' Home at Yountville, and thus relieve the G. A. R. and Mexican Veterans of the trouble of its management and the State of the expense of maintenance. The bill has been favorably reported upon by the Senate Committee, and, if reached this session, as it probably will be, it will be passed and become a law. The National Homes in the East are crowded, and the necessity of having a Home on this coast, to which needy and destitute Veterans of its several States and Territories can go for proper and honorable support, is apparent to all, and is demanded by both patriotic and economic reasons.

The Memorial Cottage erected by the General Committee of Management of the 20th National Encampment was formally received by the Board of Directors on the 12th inst. The cottage is an ornate two-story frame building, with a porch at each story entirely surrounding it, except on the rear, where it is not so wide. The body of the building is 60 feet long by 30 feet deep, with a rear tower-like attachment, containing the closets, bathrooms and lavatories. Each floor of the main building is divided into 12 apartments, large enough to comfortably accommodate at least two of the inmates. This gives 24 apartments in all, affording accommodations for 48 veterans. There is no plastering, the interior being finished throughout with wood, giving the interior a warm, comfortable and solid aspect. Both floors are provided with closets, lavatories and bathrooms, which are situated in the rear tower. There is a thorough system of drainage, and, in fact, nothing is wanting that will insure comfort and health. On the pediment in front, and looking toward the valley, is blazoned in gilt letters, "Memorial Cottage, 1886, 20th National Encampment." The cottage, gleaming white, is a conspicuous object to the visitor approaching the grounds from the railroad.

Although the Assembly Committee reported adversely to appropriating $10,000 for the construction of additional dormitories for the Home, that of the Senate has just recommended the expenditure by the State.

The bill which passed the House establishing "a National Home for veterans west of the Rocky mountains," and appropriating $100,000 therefore passed the Senate, increased to $150,000 and constituting Comrade J. A. Waymire resident manager. In this shape it was returned to the House of Representatives for its further action, which, it is hoped, will be speedy and favorable.

Until the Government assumes control, which would require some months after the appropriation is granted, the present management will be continued, and the aid of the State required.

THE HAY-FORK SWINDLER.—The Woodland *Mail* was happy last week, because Colter, of the Horse-Hay-Elevator combination, had been held for trial. (His plan for defrauding farmers was described in our issue of Feb. 12th.) Judge Ruggles held him to answer in the Superior Court of Yolo county, to the charge of being a party to a conspiracy, in which Jones, Rudolph and Pritchard were concerned with him. Bail was fixed at $1000, and Colter was conducted back to jail.

THE preliminary survey on the Santa Rosa & Benicia R. R. was begun Feb. 21st.

QUERIES AND REPLIES.

Washes for Scale Insects.

Prof. Hilgard, Berkeley: There having arisen a difference of opinion concerning the merits of two different kinds of tree washes, I now write you for information.

Wash No. 1 is made as follows: One and one-half pounds of sal-soda to every gallon of water; bring to a boiling point and add 1½ gallons of whale oil to every 25 gallons of sal-soda water. Apply hot.

Wash No. 2.—Two and one-half gallons of whale-oil soap and one-half gallon of water; boil, add two gallons of kerosene, churn thoroughly. When a perfect emulsion is formed, add 45 gallons of boiling water. Mix and apply hot.

Either of these washes is to be used as a general winter wash upon trees infested with scale, red spider, etc.

1. Is there any choice between the two? If so, which is the better?
2. Will sal-soda and whale oil permanently unite by mixing as described? If so, what is the nature of the union, and what is the product called?
3. If they do not unite, is there any benefit to be gained by applying them together?
4. Would not the same results ensue if either were applied separately?
5. What is your opinion of sal-soda as an insecticide? Would you recommend its use?
6. Would not common salt be as effectual?
7. What is your opinion of wash No. 2? Would you recommend its use?
8. Do you know of any wash that you consider better than either of the above?

There are a number in this locality who are greatly interested in the matter, and if you will kindly answer through the medium of the RURAL PRESS, the information will be more generally diffused.—JAS. H. KELLY, *San Jose, Cal.*

EDITORS PRESS:—Jas. H. Kelly, of San Jose, desires me to answer his questions through the RURAL. I would say:

1. As between a wash containing only whale oil in connection with a little sal-soda, and one containing both whale-oil soap and kerosene, the latter would, other things being equal, be considerably the more effectual.

2. By *long* boiling of sal-soda with whale oil, a soap is gradually formed. When they are simply heated together a short time, as prescribed in No. 1, the union is not permanent, but only just enough to cause a good emulsion of the oil. This is the answer to question No. 3.

As to 4 and 5. Sal-soda is a very weak insecticide, and can be effective only in very strong solution, and against young and tender scale; not against armored scale, nor even unarmored scale in the winter state. I cannot account for its use having come into vogue at all, unless it be because it was applied hot enough to damage the bugs. On that score I would not consider its effects, as such, worth the labor of a spraying.

6. Salt cannot be substituted for sal-soda in connection with whale oil, as it would prevent emulsion of the oil. Its insecticide effects are too slight to be of any practical use.

7. I should not consider wash No. 2 sufficiently effectual for general use as a winter wash. It would not hurt red spider eggs at all, and would only kill a certain proportion of any kind of scale.

All winter washes should contain a considerable proportion of caustic alkali, particularly potash, for the reason that the caustic will eat its way under the edges of the shield and so give access to the soap or kerosene, if not strong enough to act directly. In fact, nothing is more universally effectual than simple alkaline washes as prescribed in Bulletin No. 52 of the College of Agriculture, or in that lately issued by the State Inspector of Fruit Pests. But in preparing them it is absolutely necessary to know that you are dealing with a bona fide article, and not with one that is adulterated so as to render your work useless. The Bulletin above referred to gives some data in respect to the various qualities of alkalies in the market.

But such strong washes can be safely used only when the buds are fully dormant. In a more advanced stage, washes such as No. 2, strengthened with some alkali, or with sulphide of alkali, as in the wash now prepared by the Arctic Oil Works, should be used.—E. W. HILGARD.

[The University Bulletin, No. 52, to which Prof. Hilgard refers in his letter, gives chemical analyses of a number of commercial alkalies, showing some of them to be good and some badly adulterated. There are also practical hints given as to the preparation of washes and the application of them. This Bulletin was published in the RURAL, Feb. 13, 1886. Those who keep files of the RURAL can turn back to it. To those who have not a file handy we will mail a copy of the Bulletin on application.—EDS. PRESS.]

Charcoal Burning.

EDITORS PRESS:—To burn a pit of charcoal, let your correspondent A. S. H. remember, first and always, the prime necessity—perform the process of combustion with the least possible contact with air. Select a suitable place not too far from the dwelling, because the operation must be watched from time to time by night as well as by day. It is not necessary to dig much of a "pit" in the ground. Choose hard limbs of pine, spruce, or whatever wood is most available of that kind. Dry, dead limbs, if not decayed, take for choice. Set them up wigwam fashion, close together, fitting them as well as they will allow—the apex forming the chimney. Be careful to keep that chimney free, because the fire should be there applied to brisk "kindling" as far down as possible. Build round and round, taking the precaution to lay three or four straight pieces, three or four inches in diameter, along the ground from the outside to the center. These may have to be withdrawn to promote the draught.

The wood all being in place, it is now required to cover it thoroughly. In the absence of turf or sods, it must be thatched with leafy green boughs, or anything that will prevent the earth or dirt that is now heaped on from running through. Pack this soil covering carefully, exclude air as far as possible, excepting when the port-holes referred to near the ground are needed. The direction of the wind will determine which ones are to be opened. When the fire—after a few hours more or less, according to the materials—has got a good hold, close also the chimney. Visit the pit regularly, night and day; lessen or increase the draught, as may seem needed; and in a week or ten days the two or three cords of wood should be turned into good hard coal. When uncovered, water or dirt should be thrown upon coal that is too lively when spread out on the ground.

A larger pit would necessitate some change from this beehive-shaped construction; but the principle remains for the guidance of your correspondent. A. S. H. should report progress.—W. B. M., *San Francisco.*

Hygienic Instruction.

Ladies representing the W. C. T. U. are in Sacramento appealing to the Legislature that provision be made to secure instruction in the public schools on the effects of alcoholic indulgence upon the human system, hoping thus to educate the coming generation to avoid the evil. Petitions, bearing long lists of signatures, are being presented to the Legislature. In case any of our readers may desire to take part in the work, let them write the following at the head of a sheet of legal cap, add the signatures and forward the document to the Senator or Assemblyman from their district to present to the Legislature:

A PETITION.

To the honorable, the Legislature of California: Believing that prevention through the education of the people is the antidote for the vice of intemperance, we, the undersigned, citizens of ————, respectfully petition our Legislature, now in session, to enact laws requiring instruction in physiology and hygiene, which shall give special prominence to the injurious effects of alcoholic drinks and narcotics upon the human system, to be given in all schools supported by public money or under State control.

THE INDIA WHEAT CROP.—The crop year in India begins April 1st, and, of course, ends March 31st. The exports for the past five cereal years have been as follows:

	Bushels.
Year ending March 31, 1882	33,541,544
" " " " 1883	26,161,880
" " " " 1884	38,346,366
" " " " 1885	25,737,248
" " " " 1886	38,881,600

From April 1st to June 12, 1886, the shipments were 12,248,000 bushels. The acreage in 1884-85 was 27,820,673 and the yield was 9.80 bushels, which makes a crop of 272,642,593 bushels of 60 pounds each. The acreage for 1885-86, from which the crop now in process of shipment was harvested, was 26,230,720 acres, or 1,589,953 acres less than in 1884 85. The crop is said to be 16,000,000 bushels less than in 1884 85. If this deficiency is to be deducted from the surplus for export, it would leave only 23,000,000 bushels to go abroad. More than one-half of that quantity was shipped up to June 12th. Probably the true quantity for export for the year 1886-87 is about 25,000,000 bushels.

HOW HE KILLS COYOTES.—Mr. Grimsley, says the Visalia *Delta*, has an effectual way of disposing of coyotes. He takes a dead rabbit and drags it, with the entrails out, across the fields where they travel; he then hangs it up on a stake about four feet high, driven firmly in the ground out of reach of coyotes. This stake has a very large hole bored through it a little above the ground, which he fills with strychnined tallow—other grease won't do. The coyotes following up the scent of the eviscerated rabbit, come to the stake. The rabbit being out of reach, they commence licking the tallow and soon fall victims to the drug hidden within its palatable seductions. Rarely is the victim found more than a rod from the fatal stake, and his scalp is taken for the premium offered for it by the "county dads." The stakes are taken up each morning and with fresh bait put out again each evening, to avoid the risk of poisoning domestic animals.

AGRICULTURAL NOTES.

CALIFORNIA.

Calaveras.

THE OUTLOOK.—*Mountain Echo*, Feb. 16: The late rains and heavy snowfall have greatly benefited growing crops in this locality. Even the hillsides show a marked change during the past three weeks; grass is springing up luxuriantly, early fruit trees are putting forth blossoms, and if the usual frosts do not visit this section, an abundant yield of fruit may be expected. The agricultural outlook of this section was never more promising.

Colusa.

GOPHERS DROWNED OUT.—*Sun*, Feb. 19: On the DeJarnatt place, Sunday, over 600 gophers were dispatched. On Judge Bridgford's ranch five cents per scalp was offered in the morning, but as supply and demand regulate prices, he was forced to reduce the bounty at noon to two cents, and in the evening to one cent per scalp. At last accounts the market was glutted, and gopher hunters at a discount.

Contra Costa.

FRUITS AND FARMS AT BYRON.—*Gazette:* We have seen no imported raisins excelling in size, appearance, and flavor those from the Muscatel vineyard of Mr. A. Plumley, of Byron, and they are prepared in so attractive a manner as to take the eye at once. All who have tested pronounce them equal to the best in the market. He has 10 acres of table-grapes, 14 varieties, and 4 acres of pears, figs, and other fruit trees. Grapes, figs, and pears do especially well in his vicinity. The farmers of Byron and Brentwood have a standard reputation for wheat-growing, they have been so uniformly successful. Alfalfa is also a product of their farms, making from 6 to 8 tons per acre every year with four cuttings. Mr. Plumley has 40 acres of alfalfa, and there are 300 acres in his vicinity. The rain has insured the summer-fallow crop in that section, and the coming season promises to be prosperous. With a soil and climate that raises wheat, barley, alfalfa, vegetables, and all sorts of fruits to perfection, and admits of raisin-making as a promising industry, Byron's future seems well assured. Hon. G. W. T. Carter writes as follows: "I have 1000 Winter Nelis pear trees six years old, and 250 of same three years old, as fine trees for their age as can be found anywhere. When I planted, six years ago, there were plenty to prophesy that when they came into bearing they would not sell for enough to pay for the picking, instead of which they are worth more now than ever. I have a fine prospect for a crop this year. I consider this one of the best localities in the State for this pear, as it has never been known to blight and has a fine appearance peculiar to fruit grown in a dry climate, where there are no fogs or harsh winds. They ripen here in November and can be picked as late as December, making them more valuable than when they ripen early."

El Dorado.

PLANTING OLIVES AND ORANGES.—*Republican*, Feb. 17: In spite of the amiable folks who insist that El Dorado county is good for nothing, a number of orchardists are beginning to put out olive and orange trees. People are beginning to realize that it is worth while to experiment with citrus fruits in the western part of this county.

CARSON CREEK ITEMS.—Everything is in good condition to grow as soon as the rain ceases, and it looks as though we will have good spring feed and large hay and grain crops this season. Young calves can now be seen in almost every field, good indications that dairying time is at hand.

Inyo.

EQUINE IMMIGRANTS.—*Independent*, Feb. 12: This week Messrs. Sanger and Collins brought their horses and cattle from Kern county to their new homes near Big Pine. Their horses number 300 head, nearly all being work animals. Among them are a few Clydesdale and Norman stallions; these are very fine. The cattle also are all good stock. Teams loaded with farming machinery and implements formed part of the train, which looked like a small army in motion.

Monterey.

HARVEST HOPES.—Peach Tree cor. Salinas *Index*, Feb. 17: Farmers and stock-raisers are rejoicing over the prospect of a good year. A large area has been sown to grain in this vicinity, and, with our usual spring rains, harvest will be abundant.

THE REASSURING RAINS.—Soledad Cor. Monterey *Democrat*, Feb. 19: We have been badly afflicted with the "blues" on account of dry weather, but at last "the winds blew and the storm beat," and the heavens poured forth the much-needed rain. The farmers who a few days ago were predicting death from starvation now wear glowing countenances and joyful hearts, and are already inquiring the price of sacks.

Los Angeles.

MORE OSTRICHES.—Los Angeles *Times*, Feb. 8: Twenty-one ostriches, the rear-guard from Galveston of the 52 brought over from Natal by E. P. Hoyle, arrived by the S. P. yesterday, and were hauled in a covered truck to Washington Gardens, where their 22 predecessors were already on exhibition.

GRAIN ACREAGE.—Anaheim *Gazette*, Feb. 19: It is estimated that not more than one-half the area has been sown to grain in this county that was sown last year. But the product per acre will probably be more than the average.

AFTER THE RAIN.—Two weeks ago the prospects were brilliant for a season of unexampled drouth, and a more complete metamorphosis has never before been seen, even in this land of kaleidoscopic changes. As the soil was in condition to absorb the rain as fast as it fell, none of the precious moisture was wasted. It is only on land with a considerable admixture of sand that it is now possible to plow, the clayey and adobe soils being yet too wet to permit of cultivation. There is yet plenty of time, however, to sow barley, and it is almost a certainty that there is already enough moisture in the ground to insure good crops.

Napa.

JAPANESE PERSIMMONS.—*Register:* Dr. M. B. Pond, of Napa, has lately received 450 Japanese persimmon trees, direct from their native soil. They include five of the best varieties grown—those ripening between August and December. They were 22 days *in transitu* from Yokohama, and arrived in excellent condition, being packed in moss. They are all one and two-year-old trees, and will be planted immediately on the doctor's mountain ranch, northwest of this city. One hundred are already growing on the place; a part bore last season, and all will yield a good crop this year. By many persons the persimmon is considered one of the finest table fruits, and there is always a demand for it at good prices.

San Benito.

EDITORS PRESS:—Since the rain every one carries a smiling face. The grass, which has been trying all winter to show itself, is now covering the earth with a coat of green, making the stockman smile as he watches his cattle feasting on the luxuriant growth. Seeding was pretty well finished before the rain, though some would not "throw their seed away, but would wait until we got a generous downpour." Hence every team will now be busy, though it is very doubtful if we get in as large an acreage as usual, owing to the fact that the soil has not been wet enough, except in a few localities, to do anything but dry-plow until now. We have had from three to five inches for the storm, according to locality. Snow covers the mountains on either side of us. A few flakes fell in the valley, but melted as soon as they reached the ground. The weather does not look settled yet.—L. J. H., *Hollister, Feb. 15th.*

CO-OPERATIVE WAREHOUSING PROPOSED.—Hollister *Advance*, Feb. 18: A prominent stockholder in the Hollister Warehouse Co. expresses a willingness to dispose of his warehouse interests, and assist in organizing a co-operative warehouse association, to be composed of and managed by our farmers. Allowing each grain-raiser to take stock to the amount of what his storage at present costs him, this seems to be a feasible idea, and one that would greatly reduce storage rates.

San Bernardino.

A HILLFUL OF HONEY.—*Semi-Tropic:* Wednesday, Tom Baird and Mr. Reed, of Colton, found five hives in crevices of the rock on Slover mountain, and located the same with all the dips, spurs and angles. They blasted at one point and the yield was two five-gallon cans of pure honey. They report that old Slover is a mountain of honey, and they intend to make further locations and work their claims for all the sweetness there is in them. The whole mountain is alive with bees, and wherever ledges of limestone crop out and fissures occur, there is a two-to-one chance for a rich honey find. When the Slover mountain hotel is in running order, honey will be cheap and handy.

CITRUS SHIPMENTS.—*Valley Echo:* The total shipment of oranges and lemons from Riverside station for the season of 1886–87 to date, Feb. 17th, is as follows: Boxes shipped, 15,660; equal to 52 carloads.

Press and Horticulturist, Feb. 19: The shipments of oranges last season to this date were 31,386 boxes; this year 18,495. The storm has prevented gathering the fruit for nearly two weeks. Were it not for that, the amount would be very close, if not equal, to the amount of last year.

San Joaquin.

NEW STEAM-PLOW.—Stockton *Mail*, Jan. 29: A novel steam-plow, the invention of W. and J. Patterson, of this city, was at work near Reed's Landing to-day. In former experiments with traction engines the plow has been dragged through the ground, thus holding the engine back and causing the traction wheels to slip. In the Patterson machine this is ingeniously avoided. At the rear of the engine is an axle, turned by the steam, provided with arms which are set around in a spiral curve. Each arm is provided with a revolving disk, set slanting. When the engine moves over the ground the axle is turned and the arms are brought to the ground in succession much as if they were walking. The disks cut into the earth and turn it over as they rise. The inventors claim that by this means the old difficulty is avoided—the action of the plow "kicking" the engine along instead of holding it back. The machine weighs 5000 pounds. It takes 40 pounds of steam to run it without the plow, and only 50 to run it with a plow which turns up furrows four and one-half feet wide. It therefore requires but ten pounds of steam extra for every additional four and one-half feet in the width of the furrow. The engine can turn as easily as a spring-wagon, and travels from a mile to a mile and a half an hour; leaves a clean furrow, and cuts weeds. The plow may be raised or lowered at pleasure, by means of a lever, and the arms carrying the revolving disks are adjustable on the axle.

Santa Barbara.

HONEY OUTLOOK.—*Independent*, Feb. 19: Mr. Kelly, a beeman from over the mountains, was in town yesterday. He reports the prospects for a large yield of honey the coming season as very favorable.

A STRANGE SPECTACLE.—The lovely valley of the Carpinteria was clad in white last Sunday afternoon. About 3 o'clock a sort of soft hail—snow by courtesy—began to fall, and continued for about three-quarters of an hour. The ground was completely covered, all the trees and houses were also draped in the new color, and some of it remained apparent the next morning. The inhabitants were surprised and delighted at the unwonted sight.

Santa Clara.

GILROY ORANGES.—*Advocate:* Oranges from a tree in J. S. Miller's garden have been placed on the editor's desk. The tree from which this fine sample of citrus fruit is plucked has been unprotected during the winter. It is about 10 years old and has given a fair yield.

Santa Cruz.

A MODEL APPLE ORCHARD.—*Pajaronian:* Capelli & Dondero have nearly 40 acres of three and four-year-old apple trees, from which they expect fair returns this season. Their apple orchard is worthy a visit from any person interested in horticulture. Every tree is pruned nicely and kept clean; pests find no lodgment there.

THE BERRY BUSINESS.—The berry shipments from this valley last July amounted to 1732 chests, weighing 235,312 pounds; in August the shipments were 3379 chests, weighing 494,623 pounds. The shipping season lasted seven months, and the total reached 15,000 chests, weighing, in the aggregate, 1100 tons. Taking from this the weight of chests and drawers, it is safe to estimate the weight of berries produced at 700 tons, an average of a little over two tons to the acre. Berries did not average a high price last season—say five cents a pound, or $100 per ton. (Raspberries were high early in the season and strawberries brought a good price at times.) This would make the berry crop of 1886 worth $70,000. When we consider that the berry fields contain about 300 acres, these figures show a good return. But the cost of cultivating and picking takes half the proceeds, and then from the remainder has to be paid the cost of chests, drawers, boxes, freight, water, etc. With anything like fair prices the cultivation of berries is profitable.

Siskiyou.

SLEIGHING IN SCOTT VALLEY.—Ft. Jones *News:* Sleighing seems to be a favorite amusement since the heavy fall of snow Thursday night. No less than five sleighs were out yesterday. Three of them employed the morning hours in conveying the pupils of the Ft. Jones school to the schoolhouse.

Solano.

PLANTING ALMONDS.—Dixon *Tribune*, Feb. 19: Chiles & Godfrey will begin planting 50 acres of almonds as soon as the ground is sufficiently settled. It was also Mr. Larue's intention to plant 50 acres in almonds, but the lateness of the season and the demands of other duties may prevent. The work will, however, be pushed as far as possible and its completion left for next season.

Sonoma.

SOME SNAKES.—Pet. *Courier:* Tom Jones, of Vine Hill View, was pruning vines the other day. Having dropped his shears into a gopher hole, he put his hand down to get them, when he felt what he thought was a small rabbit. On pulling it out, what a surprise! It was a rattlesnake, six feet long, with 16 rattles and a button. He managed to kill it, and now there is a reward for a pair of prnning shears.

Tehama.

CAPAY VALLEY NOTES.—Cor. Red Bluff *Sentinel:* Everything looks nicely and farmers are in good spirits over the rain; no more dry-weather croakers now. Sheep are suffering a good deal from this storm, and there will be great loss in young lambs, although there is not much time given here to sheep raising or stock of any kind. The valley is principally devoted to wheat, barley, orchards and vineyards. I think that apricots and peaches do the best, although apples, pears and figs, and grapes of all kinds, do well here. There are several young vineyards that will produce well in another year. W. Levy, of Madison, has the largest vineyard in the valley. He has about 200 acres, mostly wine grapes, situated 14 miles from the mouth of the valley. T. D. Morrin, a little further up, has 25 acres in raisin grapes. Mr. Rubert has 20 acres in raisin grapes.

Tuolumne.

EDITORS PRESS:—This is the eleventh day of the greatest storm, or series of storms, that has visited this region in the 12 years since I came to Columbia. A howling tempest and violent downpour raged all last night, changing at 6 A. M. into snow. At the hour of writing—4 P. M.—15 inches lie upon the ground. There has been a fearful slaughter of fruit trees, for the snow was wet, heavy and clinging. It is impossible to note how many dwellings and barns have succumbed to the great pressure upon them. Two hard workers all day saved my house and barn from collapse.—J. WINCHESTER, *Columbia, Feb. 14, 1887.*

ARIZONA.

BEEVES.—*Hoof and Horn:* The drafts being made on Arizona by Southern California for beef cattle are constantly increasing in number and size. Hardly a week passes but what some representative of Southern Californian wholesale butcher establishments leaves the Territory with a trainload of such stock.

PLANTING STONE-FRUIT.—Phœnix *Herald*, Feb. 17: R. E. Farrington, the nurseryman, is planting an orchard of 7000 Muir peaches, for drying and canning, and another of 3000 apricots. These two orchards will represent almost as many peach and apricot trees as now exist in the Territory, and it looks as if at no distant day a home cannery will supply the market of Arizona with these fruits and thus keep at home a large amount of money that now goes to California.

NEVADA.

A MODEL RANCH.—*Stockman:* The Paradise valley ranch of M. Brandenstein & Co. is a model in every respect. Twenty-eight sections are under fence, and are divided off into seven fields, on which 2000 tons of hay is raised every year. The stock are driven to the hills in summer, and at the beginning of the winter season are returned to the home ranch and quartered in the inclosures. Everything has been reduced to a system, under the superintendence of J. G. Holleway; the cattle are graded and placed in separate inclosures; hospitals are at hand for the sick and weak cattle, and the result is that little or no loss is occasioned, no matter how severe the weather. The firm evidently believe in trusting to business principles in preference to luck, and the result is shown on the credit side of their ledger. During the season just passed the home ranch has shipped 2500 head of beef cattle to the firm's S. F. house, 500 head to their San Ardo ranch, in Monterey county, Cal., and they have 500 head of beef cattle in Paradise valley, which they are holding for the spring trade. Their buyer, L. Godchaux, has also shipped during the past year 1000 head of beeves, purchased from various stockmen, making in all fully 4500 head of stock which will eventually find their way to the firm's shambles in S. F.

Sonoma County Notes.

EDITORS PRESS:—Sonoma county has had a good soaking. The month of February has brought more than its share of rain. In some portions of the county, grain has suffered with too much water. There was a good deal of snow and it came lower down the valleys than it generally does. It was a strange sight—the ground covered with snow, and at the same time and place ripe oranges and olives hanging on the trees. Your correspondent saw this with his own eyes, and seeing is believing. But such an exception is necessary to prove the rule.

The cold weather and snow have hindered the growth of grass, and in a few instances have been hard for owners of sheep, especially where early lambs were among the flocks. Such cases are few, however, and the loss on any one owner is not great.

A leading nurseryman says he has had no difficulty in selling his entire stock; we therefore conclude that a good many acres of orchard are being planted in this county.

Although the price of hops was not very remunerative to growers last year, there have been many new hop-yards set out this winter. Most of the hop-growers build their own drying-houses, and this gives the lumberman and all his employes, the carpenter, the hardware merchant and the teamsters something to do.

County people expect one and possibly two railroad extensions soon. Should they realize their hopes, things will be lively in old Sonoma this year.

Santa Rosa is growing rapidly. Improvements on the grounds and streets around the new courthouse will materially better the appearance of that neighborhood. The new City hall, fronting the plaza, is almost completed and will be very substantial. Brick buildings and fine dwellings are in course of construction in many quarters; and while there are many fine stores and private houses here already, some of these new ones are even better than the best.

Vineyard men generally are through with pruning. Some few have even plowed a few acres of vineyard.

Roads in this county were not much damaged by the heavy rains of the past fortnight.

Country schools and the expectant schoolma'am are in a high state of excitement preparatory to the opening of the spring term of school.

The anniversary birthday of the immortal Washington will be duly observed by our people.

Citrus productions from Sonoma county may be seen at the office of the S. F. & N. P. R. R., under the Palace hotel, S. F. We will do better next time. OCCASIONAL.

Santa Rosa, Feb. 21, 1887.

THE wheat crop of South Australia, says an Adelaide dispatch, shows a surplus of 175,000 tons.

The Latest Fashions.

Ladies' Costume.

Fancy wool goods and plain silk are here combined in the costume. The skirt is fashioned in the popular four-gored style, and may be worn with or without a bustle and steels. Upon the gores is a drapery that falls even with the lower edge and is laid in wide kilt plaits that turn from the center. This drapery extends almost to the belt, and its plaits are stayed underneath. The other draperies are joined to the top of a shallow yoke, and the lower edge of the yoke is sewed over the top of the plaited drapery. At the back the drapery is very full and wide and comes even with the edge of the skirt; it is hemmed at the left edge, draped by three deep plaits in the right edge, and effectively arranged in a *bournous* loop and plaits at the top. At the right side it joins the right-side drapery, which is handsomely draped by plaits —which are all in the top—and falls to the edge of the skirts. This side drapery flares sharply from the front drapery, which it joins for a short distance below the belt; and the plaited drapery is very effectively displayed between. Plaits in the front drapery where it joins the side drapery, and also in the top, wrinkle it effectively. This drapery flares decidedly from the straight edge of the back drapery, thus here also displaying the kilted drapery with which it falls evenly for a short distance across the center of the front. A passementerie ornament is fastened where the front and right-side draperies meet. The basque has a pointed vest that is inserted in Breton fashion and is very ornamentally constructed. The upper part of the vest is a yoke, to which the lower part is gathered. Below the bust the lower part is shirred across to the point, and the vest is mounted on a smooth-fitting lining that is fastened with buttons and button-holes at the left side to a corresponding front lining that is much narrower. Upon these lining portions are arranged the fronts, each of which has a cluster of fine tucks extending from the shoulder to the lower edge of the yoke portion of the vest, and is smoothly adjusted by bust darts, the fullness between the tucks and darts being especially becoming. A handsome passementerie ornament covers the yoke portion of the vest and extends slightly below it at the center. At the back the basque is perfectly plain, its well-curved seams being extended to the edge; and over the bottom of the basque the yoke under the draperies is fastened with hooks and loops. The collar is in the high-standing style. The coat-sleeves are neatly trimmed on the upper side of their wrists with two overlapping *revers* of silk that turn toward the hand. For the kilted drapery, striped or bordered goods will frequently be used, while the combination plain and fancy wool goods will be chosen for the rest of the costume. The full portion of the vest will, however, look best made of soft silk, Surah, crepe, etc. All kinds of dress goods may be chosen for a costume of this style, and one material may be used throughout if preferred. Rich-looking costumes have the kilted drapery, the collar, the upper part of the vest and the sleeve decoration of olive plush or velvet, while the rest of the costume is of golden-brown rough or smooth wool goods. The large felt hat is trimmed with softly-folded silk and ostrich plumage.

THE President of the San Francisco Board of Trade, J. B. Stetson, in his annual report, says: The trade of San Francisco during the year 1886 has been fully equal in volume and amount to that of 10 years ago. When it is considered that by the construction of the railroad connecting Oregon and Southern California with the East we lost some of the territory formerly supplied, and now still retain the same volume of trade, it is evidence positive that we have gained in Central California all we lost in Oregon and Southern California. This will continue, and I believe the merchants in San Francisco can be assured by diligence of an increase in their transactions annually for many years to come. The effect of the citrus fairs of Sacramento in 1885 and 1886 is beginning to be felt in the increased inquiry concerning lands, climate, etc., in Central California. Many of the counties which had hitherto made but little effort to make known their genial climate and great productive qualities, are now moving in that direction, which is sure to be productive of great results at no distant date. In the southern part of the State there now exists a great activity in the purchase of real estate, creating that which is termed a "boom." That great influx of people in that section of the State is not without a beneficial influence on the central part of the State, as many of the visitors there also visit our city and vicinity, and from the well-known attractions here will be induced to settle upon our Central California lands.

A COSTLY CATHEDRAL SINKING.—St. Isaac's, the great cathedral at St. Petersburg, which was finished in 1859 and cost over $25,000,000, is slowly sinking into the ground, and the authorities do not know how to stop it. Possibly they might learn a lesson from the American engineers who arrested a similar settling of the Washington monument, the highest artificial structure on the globe.

THE six petroleum wells at Puente are now yielding 100 barrels a day.

The Harm Done by Hydraulic Mining.

Speech Made in the Assembly Chamber, Feb. 5, 1887, by Hon. Geo. Ohleyer.

MR. SPEAKER: The motion before the House is that the enacting clause be stricken out of Assembly bill No. 146, entitled An Act to prevent injuries to navigable streams. Such a motion upon such a subject is a most extraordinary procedure, even coming from gentlemen representing the opposition. The question is not whether mining of any kind *shall* or *shall not* continue, but it is whether or not the navigable streams of the State shall be preserved to the uses of this and coming generations. It would seem by the efforts of our mountain neighbors to kill this bill at its inception, that they feared a serious discussion might be had on one of the most important questions affecting the present and future well-being of this State. It will not do to say the bill is too severe, and therefore shall not be revised to meet the approval of a majority. Most bills introduced represent the interests of the locality from whence they came; to make them applicable to all alike is the work of the Assembly. Scarcely a bill has passed or will pass this body without being scrutinized and amended, let the same be good, bad, or indifferent.



LADIES' COSTUME.

We maintain that the policy of the measure is a good one, and before action is had we hope to show great necessity for some such legislation, and the necessity, at least in some instances, of the severity of this bill. By this we mean in cases where the orders of both Federal and State Courts are repeatedly and willfully violated. But this idea of protecting navigable streams from injury is not new or confined to our State, and they are protected by law against the indiscriminate dumping in of rubbish and debris of every kind from other sources as well as from hydraulic mines. Authorities are numerous on this subject, a few of which I will produce before I close. Notwithstanding the great increase in railroad facilities everywhere, navigable streams are receiving the fostering care of governments to a greater extent than was ever known. From $10,000,000 to $20,000,000 are spent annually by the United States in improving the harbors and navigable rivers in various parts of the Union, and during the last session of Congress at least one branch voted in favor of the construction of the Hennepin canal, which is to connect the great northern lakes with the father of waters—the Mississippi river—and thus, as was said, extend the lake navigation 500 miles further West or bring the West 500 miles nearer the seaboard. On September 3 and 4, 1885, there was held in St. Paul, Minnesota, a Northwestern Waterways Convention.

There were over 600 delegates present, besides visiting Congressmen from the South and other portions of the country, Government engineers and other citizens. They claimed a convention representing one-fourth of the territory and one-fourth of the population of the United States. The subjects considered were the care and improvement of the navigable rivers of the Northwest, and they resolved in favor of that and the construction of the Hennepin canal. The convention closed after adopting unanimously about 18 lengthy resolutions. The most interesting portion to us is the following preamble and resolution:

WHEREAS, In order to secure to the producers of this country the highest possible return for their products, to receive, in return, the exchanges for the same at most favorable rates, and to sustain our proper relations to foreign markets, the cost of transportation must be reduced to the minimum;

Resolved, That all navigable waterways and harbors of the United States should be thoroughly and extensively improved; that $250,000 per year for such improvements would not be an extravagant appropriation on the part of the General Government.

I apprehend that no argument is needed to convince any one on this floor of the value and wisdom of this western movement, but ask, shall we spurn from us here what we indorse for other sections? To us it matters but little how much navigation is enlarged, protected or improved east of the Rocky mountains. We are a community and law unto ourselves, and we must work out our own salvation with such assistance as we may secure from the General Government if we put ourselves in position to deserve it.

Mr. Speaker, it is impossible to overestimate the value and importance to this State of its navigable waters. Our rivers and bays float more commerce, compared to size, than any in the Union, if not in the universe, and yet we value them so lightly. Look at the shape and direction of our bays and rivers; the former borders on ten of the richest counties of the State, with unsurpassed navigation and a soil and climate nowhere excelled, and the latter, the Sacramento and San Joaquin rivers, drain two of the largest and most fertile valleys in America, to which their respective rivers are as much a necessity as arteries of commerce as is the warm flowing blood to the human system. These rivers come together in the center of the State and flow westwardly through San Francisco bay and its branches, and by the wharves of the great western metropolis, casting thereon one and a half million tons of the best wheat grown, and an endless variety of other products; an amount and kind that could not be transported by rail.

These free highways add immensely to the value of the products of these valleys, and it is not too much to say that in the matter of wheat at least $1 per ton is saved to our farmers by river transportation; thus adding one and one-half million dollars annually to the value of the crop. It is estimated by that veteran editor and political philosopher, Will S. Green, of the Colusa *Sun*, than whom no better authority exists regarding the Sacramento valley, that the Sacramento river is worth annually to Colusa county $500,000, and to the valley a million. The valley has a railroad on either side, and yet wheat is drawn to the river from beyond the roads, thus crossing them to enjoy the lower freight rates. No better illustration can be made of the importance of river transportation than a reference to an address made by Joseph Steffens, Esq., President of the Sacramento Board of Trade, to that body, in which is related the scenes of a trip from Sacramento to the junction of the Sacramento and Feather rivers, of which I had the honor of being a member. On pages 17 and 18 of Mr. Steffens' little pamphlet, the author relates the following:

In September this board invited the Congressmen from this State and representative men from San Francisco, Stockton and many other parts of the country, numbering about 50, to take a steamer trip of observation up the Sacramento river, from that point to the mouth of the Feather river. On this trip, soundings were frequently taken, and many places in the river were found where the water was only 2½, 3 and 4 feet deep. The river banks were a continuous line of water breaks and damage. Opposite the mouth of the Feather river the channel was 2½ feet deep, and in the main Feather river channel at its mouth stood a crane not knee deep in water. It was my first intention to take the party up the Feather river to Marysville in a light draft boat, but it was deemed advisable not to disturb the crane, so we passed up the Sacramento some three lengths of the steamer, and turned around in 27 feet of water, where the river-banks were natural, willow and tree lined. Just one item here to show the importance of the river and its value as a freight-rate regulator. In the 2½ hours up trip, we met the following steamers and barges. I give their tonnage capacity and their wheat cargoes to show what the rivers would allow them to carry, and the value of its carrying capacity, even in its crippled condition.

THE VALUE OF THE RIVER.

Steamer.	Capacity, Tons.	Cargo, Tons.
Neptune No. 2	110	50
Dover and barge	1000	600
Ceres and barge	800	400
Harriet and barge	800	400
D. E. Knight No. 1 and barge	600	300
D. E. Knight No 2 and barge	600	300
Totals	3910	2050

This is equal to 205 carloads of 10 tons each.

This will show the value and importance of this river. This happened within two and a half hours from the time we left Sacramento. As a further illustration of the value of this river I refer to a report of the 47th Congress, by the Secretary of War and the Committee on River and Harbors.

The Condition of the River.

Objection has been made to the Government's construction of levees to confine the waters, whereby the scouring force might be augmented, as thereby local and private interests would be subserved, which was held to be no part of the objects of river improvements. To this the committee replied as follows (page 55.):

The Sacramento river is navigable for 300 miles. For the first 20 years of existence of the State of California—from 1850 to 1870—that river carried the entire products and supplies of the middle and northern portions of the State, transporting more commerce on its bosom than any other river of its size and length in the United States. It carries the great wheat crop of the long and fertile valleys of the Sacramento and San Joaquin, which requires the services of 800 vessels of large tonnage to transport it to the consumers of the world. Its navigation is being destroyed by the inflow of detritus, the accumulated deposits resulting from hydraulic mining for many years past, which, in times of flood, are swept down from the headwaters and tributaries into its navigable channels. If this destructive inflow of detritus be not checked and stopped, the river will become unnavigable, and these great wheat-producing valleys will be absolutely at the mercy of a single railroad company without competition. The damage has already been done, and has been done by miners. The State will see that no more damage be done.

Will the State do it? That is the question that is now facing this Assembly. (Reads:)

The people who demand, and have a right to demand, that this great commercial river be kept open to navigation—the people who have a right to use it—had nothing whatever to do with the causes which led to its shoaling and filling up.

I want to read to you some names from a slip of paper. It is known to you all, of course, that hydraulic mines have been enjoined, and that the courts have universally stood by the people of the valley. By request the District Attorney of Yuba county furnished a list of hydraulic mines that have been running without consent of court, as follows:

Excelsior Water and Mining Co., once; Eureka Lake and Mining Co., seven times; North Bloomfield, once; Milton, three times; Blue Tent Mining Co., three times; Omega Mining Co., three times; Palace mine, twice; Manzanita, three times; Arnott, once; Indian Hill, four times; Cleveland and Sierra mine, twice; Cray, twice; Ophir, twice; Hints Hill, twice; Alpha, three times; Martin & Olson, twice.

Not long since the City Engineer of Sacramento was sent up into the mountains to see and report the condition of affairs up there, and I have received this communication from him, which I will read:

SACRAMENTO, Cal., Feb. 2, 1887.

To Hon. George Ohleyer, Sacramento, Cal.:

You ask me to describe briefly the mining operations now in progress in the hydraulic mining belt so far as I have any knowledge of the same.

Any recent information I have on the subject extends only to Bear river and its tributaries in the section of country between Dutch Flat and Nevada City.

In that section considerable hydraulic mining is being done. In fact, all the water that is to be had is being used for that purpose, amounting to about 2000 or 3000 miners' inches per day. The work that is being done is conducted almost entirely by Chinese, there being employed from 120 to 140 men hydraulicking and perhaps 50 or 60 more sluice mining and working over the old tailings in the canyons. Not more than 8 or 10 white men are working by the hydraulic process.

At some points the mining operations are being conducted in direct violation of the injunction of the courts by the Chinese under some sort of lease or other arrangement with the owners of the mines. Generally watchmen are kept to warn the workmen of the approach of strangers or of those suspected of being out in search of evidence of the contempt of court. By this means they often succeed in stopping operations before the same can be witnessed by the officers and evidence secured. Upon entering the mine it is generally found deserted, although the evidence of recent work is found on every hand. In some instances the mining operations are carried on at night, the more easily to elude detection.

Another difficulty experienced by the officers has been in identifying the Chinamen so as to be able to serve papers and make arrests for violations of the injunctions of the courts; the "boss" Chinamen, as they are called, keeping secreted, while the workmen are constantly

shifting about, and when questioned pretend they cannot understand.

From my recent observations I estimated that with a full supply of water, such as is had some seasons, from 15,000 to 20,000 cubic yards of mining tailings would be thrown into Bear river and its tributaries per day. For two successive days following a recent storm, when the water supply was abundant, fully that amount was put in each day.

Owing to the fact that the Chinese will work ground that pays a much less profit than any that the owners of the mines can afford to do, these Chinamen are now largely engaged in washing banks of very light material, which, years ago, were abandoned by the whites as unprofitable. On these banks the duty of the miners' inch is very materially greater than on the heavy banks of hard cemented gravel that were previously worked by the mine-owners. Very nearly the entire amount of the materials washed from these light banks is of such a character as to be immediately carried in suspension to the lower portions of the streams into which they are discharged, thus materially increasing, in proportion to the amount of water used, the number of men employed and the value of the gold obtained, the damage to the streams and the lands and other property contiguous thereto. I am, dear sir, yours truly,

L. F. BASSETT.

Action by Sutter County Supervisors.

The following resolution was unanimously adopted by the Board of Supervisors of Sutter county, at a special session held February 15, 1887:

WHEREAS, By reason of hydraulic mining in California, property in the Sacramento valley, exceeding in value $50,000,000, has been destroyed, and navigable streams and bays of incalculable value seriously impaired and threatened with absolute ruin; and

Whereas, Said work of destruction still continues in spite of the expenditure by the counties injured of over a quarter of a million dollars in anti-debris litigation, but is mainly carried on by Chinese, against whom the decrees of the courts cannot be effectively executed; and

Whereas, On the Bear river and its tributaries alone, as appears from the report of a Government engineer, there are at this time over 200 Chinamen and less than 15 white men engaged in dumping and discharging debris by the hydraulic process of mining into said stream, and the same condition of affairs practically obtains on the American, Yuba, and Feather rivers; and

Whereas, Practical experience has taught us that the Chinese are irresponsible, are not easily identified, have no known employers, and that the actual workmen are so frequently changed that civil process is unavailable against them; and

Whereas, Senate Bill, No. 101, now pending before said body, if amended according to the minority report of the Committee on Mines and Mining Debris, is a just bill, the passage of which by the Legislature would enable us to protect our property and our navigable streams from destruction by unlawful mining at the hands of Chinese as well as white men, and would injure no man who respects the person and property of his neighbor; and

Whereas, The peril of our situation is imminent, our condition practically helpless, and we deem the occasion one of great emergency;

Resolved, That our Senator and Assemblyman be, and they are hereby, instructed, and the representatives of other sections most earnestly solicited to use their best efforts to pass said bill.

L. P. FARMER, Chairman.
[SEAL.] Attest: A. H. HEWITT, Clerk.

CONNECTING THE GREAT LAKES WITH THE MISSISSIPPI.—The project for a steamboat connection as above has long been under consideration by engineers and by Congress. The trouble seems to be to select some one of the several routes proposed. Reference to the various routes is made in the following extract from an Illinois journal, which evidently favors the Hennepin canal: "The Board of Army Engineers, appointed under the provisions of the last River and Harbor bill to examine into the feasibility of the work, finds that the proposed canal is feasible, and because of its commercial importance is worthy to be undertaken by the General Government. But it recommends the non-acceptance by the United States of the Illinois canal under the provisions of the existing act of the Illinois Legislature. This means that a recession would be necessary by the people of Illinois, and this would take the subject out of Congress for the next three or four years. The board also, by its indorsement of the Marais d'Osier or northern route, as against the Rock Island or southern route, puts a damper on many friends of Hennepin. Most of the engineers who have made surveys have favored the Marais d'Osier route, but Gen. John Newton, when at the head of the Engineer Corps, always overruled his subordinates and upheld the Rock Island route because of its superior commercial advantages. But he is no longer with the department, and the Marais d'Osier people have their own way. The Hennepin canal scheme is not dead; it will live again, and, we believe, will at no very remote day become an actual realization."

WOODEN BOLTS in house-building, and their superiority over nails, is thus commented upon by an English journal: "Why do you make so lavish a use of nails in the carpenter work of our houses, to the exclusion of the honest, old oaken pin? Pull down any building, if it be merely a barn, more than 200 years old, and you will not find a single nail in the original work; rafters and joints were all bolted together so stoutly as almost to defy the tools of the destroyer. Many an old manor barn, when pulled down of late years—as, unfortunately, only too many of them are—has shown itself to have been better built than most palaces are now. There are arguments in the way of economy of time, and so on, in favor of the use of nails in house-building; but they are as nothing compared with the solid advantages of using wooden bolts. The iron nails in time canker and rot rafters and floors, but wooden bolts hold them together 'like grim death,' and render a house practically indestructible."

Central California Citrus Fair.

[Written for the RURAL PRESS by H. M. H.]

Literary Exercises.

Thursday Evening, Feb. 10.—After an overture by the band, Prof. J. W. Rainey sang in cultured style a tenor solo, "Ah, so true" (Estabrook), with violin obligato by Miss Lessie Rainey and piano accompaniment by Mrs. J. W. Rainey. Being heartily encored, he sang, to the great amusement of the audience, a medley known as "The Song Jokes."

Messrs. Gebhart and Metcalf followed with a well-rendered duet, "How Dear the Hour" (Keleber), but failed to respond to an encore.

Miss Etta Herman's alto solo, entitled "Longing" (Willard), was loudly encored, and answered with "We'd Better Bide a Wee."

The program concluded with a vocal trio, "Te Sol, Te Sol," or "Thee, Only Thee" (Verdi), which was admirably sung, with appropriate gestures, by Prof. J. W. Rainey, Mr. Elmer Chase and Miss Lina Hillman.

Monday Evening, Feb. 14.—A fancy dance, "La Cachucha," was well executed by Miss Nellie Paul, who declined a recall. Miss Mattie Fowler, of Evergreen, gave an excellent recitation which elicited applause. Miss Lena Voltz, with remarkably fine effect, sang "Songs of Home," and, as an encore, the "Swanee River," Miss Eva Hunkins ably supporting her with a piano accompaniment.

Tuesday, Feb. 15. — The exercises opened with a march, "Rebecca Commandery," and an overture, "Blossoms of '87," played by the band. Miss Ruth Fowler's recitation, "The Little Hero," was much enjoyed. A vocal solo, "The Switzer's Dream of Home," by Miss Hannah Buckley, received prolonged applause, which was responded to with the selection "Ruby." Miss Lessie Rainey, a musical prodigy, so charmed her auditors with a violin solo, "Conzonetta," that she was encored, responding with "Home, Sweet Home." The band closed the exercises with the "Surf Polka," cornet solo and other selections.

Wednesday, Feb. 16.—First on the program was the "13th Regiment Quickstep" and an overture, "Poet and Peasant," by the band. An instrumental solo by Mrs. L. Callisch receiving an encore, "Way Down Upon the Swanee River," with variations, was rendered to the delight of those present. Miss Cora Finch, whose appearance was greeted with great applause, sang "Wooing" in charming style, and being recalled, gave, without accompaniment, "Home, Sweet Home" to spell-bound hearers. Mr. Oppligar's cornet solo, "Clover Leaf," was well appreciated, and a selection from the "Bohemian Girl" was given as an encore. Mr. Harrell's bass solo, "I'm King O'er the Land and the Sea," was so pleasing that he was compelled to add "A Hundred Fathoms Deep." The band closed with "Enchantment" and the "Hot Shot March."

Thursday, Feb. 17.—The band having opened with a well-received overture, Misses M. E. Boots and Lina Hillman, assisted by Miss Eva Hunkins, pianist, sang, with fine rendition, a duet entitled "Mira o' Norvia," which was encored without effect. Mr. Charles Knox, a young man with a tremendously heavy voice, rendered a bass solo, "Friend of the Brave," with excellent effect, and, being encored, sang "Sweet Peace, be Still." Miss Jennie Black's vocal solo, "Stars, the Night is Dawning," was thoroughly enjoyed, and the applause being long and loud, she sang "The Old Maid of Lee." Miss M. E. Boots then sang "Oh, So True," Prof. Harry Tuck accompanying her with a violin obligato. Miss Mattie Fowler sang, with pleasure to her hearers, "The Nightbird's Coming;" encored, she responded with "Kiss Me Good-Night and Go." The band closed the exercises with the "Consolidation March" and the "Champagne Galop." The program for the evening was prepared by Chas. T. Boots, of the University of the Pacific.

Mr. Flickinger's Fruit.

Mr. J. H. Flickinger brings from the "Pacific orchard," near Berryessa, a fine display of preserved and dried fruit. The cannery being located in the orchard, none but choice, ripe fruit is preserved, and it is put up the same day that it is picked. His apricots, peaches, cherries and plums in glass, are unusually large, and attractively arranged in the form of a pyramid. His canned fruits, including apricots, lemons, cling and Crawford peaches, Washington and egg plums, white and black cherries, are of excellent quality. He exhibits a ton and a half of dried prunes in a huge box nine feet long, six feet wide and one foot deep. His apricots and prunes are for the most part sun-dried, and are claimed to be equal to any other dried fruit produced in the valley. The cannery will be enlarged the coming season to meet increasing demands. Excepting the remnant on exhibition, Mr. Flickinger's fruit crop of the past season has all been sold. Part of his canned and dried fruit finds a market in Philadelphia and Chicago, but most of it goes to England.

Mr. Flickinger's orchard, three miles from the San Jose postoffice, contains 200 acres and consists of 20,500 trees, viz.: 7000 apricots, 7000 peaches, 4500 French prunes, 1000 cherries, and 1000 Washington and egg plums.

The oldest trees were set out near the close of 1880, and the youngest in the spring of 1886, the object being to supply the choicest canned and dried fruits for Eastern and foreign markets. His success has surpassed his most sanguine expectations—a crop having been gathered from all two-year-old trees.

From the "Pacific orchard" some large fruit has been taken; *e. g.*, peaches weighing from 8 to 15 ounces, and Moorpark apricots, from 2 to 4 to the pound. Santa Clara valley is certainly the home of the finest Moorparks which are raised here with greater success than elsewhere in the State. Being the best apricots grown, they find a ready market whether they are green, canned, or dried.

The orchard being in the warm belt, there is not frost enough to injure fruit.

Last season's crop amounted to 200 tons. Mr. Flickinger estimates his fruit crop the coming season from 17,000 trees at not less than 800 tons, which he will preserve in tin and glass, or evaporate.

The plan of putting up the ripe fruit where grown is simply perfection. All the fruits preserved are picked, when ripe, and put up within a few hours, consequently retaining their original freshness and high flavor.

Fruit which has to be transported 50 or 100 miles before canning must be picked more or less unripe; hence the superiority of that put up in an orchard cannery.

Mr. Flickinger is not a packer of other people's fruit, but all preserved by him is from his own orchard. Realizing that his goods must be brought into competition with the products of European countries and the East, and that an attractive and convenient shape is of great commercial importance, he has established works in Berkeley, where he will manufacture his own flint-glass fruit-jars.

Displays of Oranges.

E. Ditto, Jonas Higgins, Mrs. S. F. Smith and E. Beckwith, all of Los Gatos, exhibit oranges.

Mrs. Miller, of Laguna valley, three miles from Milpitas, displays oranges and lemons.

Ada B. Cameron, of Laguna district, shows oranges and olives, as well as lemons from four-year-old trees.

J. F. Tobin, of Los Gatos, has some fine oranges arranged in the form of a Maltese cross.

Mrs. B. P. Rankin makes a good exhibit of lemons.

Mrs. F. L. Taylor, of Los Gatos, has an orange pyramid, at the apex of which is an orange five inches in diameter; also a cluster of 13 oranges.

B. F. Bachman, of Los Gatos, brings a box of Languedoc almonds.

Dr. Knowles, of Los Gatos, exhibits a pyramid of unusually fine oranges.

I. Berger, of Mountain View, exhibits a limb bearing oranges.

Mrs. Thos. Gibson, of Los Gatos, has a vine of prolific peas.

Mr. B. H. Gordon brings from his farm in the eastern hills a radish 16 inches long by 26 inches in circumference.

Mrs. S. A. Lee shows a beautiful center-table, completely overlaid with seashells.

Mrs. A. Nash displays a frame containing sea-moss, arranged in the form of leaves, with petals of seashells.

Honey.

Henry French, a San Jose groceryman, has an exhibit of beautiful comb honey, put up in three-pound boxes, having a glass end, through which the fine quality of the honey is displayed. The boxes are paper covered and are very neat.

Mr. J. H. McMillin exhibits a section of bird's-eye redwood, 12x2½ feet, and another piece, 18x4½ feet, from Bear Creek Mill, Santa Cruz Co.

Mr. A. C. Bassett, superintendent of the Northern Division of the Southern Pacific Railroad, brings from the Loma Prieta Lumber Mills many small specimens of knotty redwood, finely polished.

Wines.

Mr. J. C. Merithew, of Cupertino, brings from Prospect vineyard a magnificent display of wines and brandies in bottles, which are prettily arranged in a pyramid, over which is an arch bearing the name of the vineyard. The following are the varieties on exhibition: Claret, Riesling, port, Angelica, Muscatel, sherry and grape brandy, Bonanza brandy. Mr. Merithew, whose 40-acre vineyard is 14 years old, began to make wine in 1876.

Chas. Lefranc brings from the New Almaden vineyard four boxes of handsome oranges, and some Grenache and white wine.

Mrs. Hagemeyer, of Alameda, displays fine oranges.

H. C. Pitkin, of the Willows, sends specimens of edible cactus.

T. Conant, of the Willows, shows a box of odorous quinces.

Oscar Promis exhibits dried prunes of excellent quality.

Mr. A. R. Woodhams exhibits a root called the *megarrhiza*, which contains about two cubic feet, and has a very pungent and bitter taste. It is labeled as follows: "Warranted to be good for the memory and to make men tell the truth." Many visitors, including newspaper correspondents, tried it to their infinite disgust.

Mr. Isaiah Shaw, of Berryessa, shows a bearing castor-bean tree, seven feet high and one and one-half inches in diameter.

New Floral Displays.

Miss Mattie Ross, of the Willows, sends in a design of a butterfly wrought with mignonette and speckled with pansies; also a double horseshoe of pansies and maiden-hair ferns.

Mrs. Capt. Aram shows a basket of camellias, narcissus, daphne, heliotrope, white gilly flowers and maiden-hair ferns, all grown out of doors.

Mrs. S. I. Sanders, who lives near Berryessa, shows an exquisite double bouquet of camellias, fuschias, variegated pinks, ageratum and maiden-hair.

Mrs. P. W. Coil, of Lincoln district, shows a basket of many kinds of outdoor flowers, over which hangs a bunch of strawberries.

Mrs. John Bubb, of Lincoln, sends a beautiful floral piece.

Dr. Vanderburg, of Los Gatos, shows a beautiful variegated camellia, grown in the open air.

Mrs. Beatty, of the Willows, exhibits a basket of smilax, maiden-hair ferns, violets, pansies and primroses.

Gazing at the floral decorations, one forgets for the time that spring has not come. Fresh flowers in large quantities have been supplied daily from San Jose and Santa Cruz, the latter now showing 68 species and from 700 to 800 varieties.

Vine and Fig Tree.

Mr. N. Cadwallader contributes a two-year-old fig tree 12 feet high and 1½ inches in diameter. It was grown in J. Rock's nursery.

Messrs. Spencer and Covel have twined a grapevine, which, having been cut back, has grown out to a length of 27½ feet in one year. A card bears the sentiment, "This is the country where you can sit under your own vine and fig tree."

Pacific Silk Factory.

The Pacific Silk Factory, of San Jose, Mr. H. X. Van de Casteele, proprietor, makes an interesting display of silk in all its forms, from the raw silk of the cocoon to the manufactured dress goods. The cocoon, which is spun by the silkworm around itself before going into the chrysalis state, is an inch long and contains about 250 yards of yellowish fiber. Skeins of raw silk, 250 yards long, are made from the cocoons, each one contributing a fiber. Mr. Van de Casteele shows skeins in four stages of bleaching. After being dyed, the fibers are woven into silk goods.

Considerable money is sent abroad annually to purchase raw silk, of which California does not produce enough to supply this factory. There are 17 looms, a winding machine and a steam engine, beside other apparatus necessary to a complete equipment. From 25 to 28 hands are employed, the weavers working by the yard and being held responsible for losses resulting from defective manufacture.

The factory has a capacity for making daily 180 yards of grosgrain, which is pure silk goods. The manufactured article, when 22 inches wide, sells at $2 per yard, and when 21 inches wide, for $1.50. Rhadame or satin, 21 inches wide, brings $1.75 per yard. In every bolt the name of the factory, the name of the firm for whom the bolt is made, and the name of the grade of silk are woven. O. A. Hale & Co., whose stores are located in San Jose, Salinas, Sacramento and Petaluma, order the grades known as the "Garden City," "Nonpareil" and "Satin Rhadame." For Keane Bros., of S. F., the brands called the "Standard" and "Golden State" are manufactured. A. & J. Martin, of San Jose, handle the goods, and Brown & Metzner, of S. F., are the agents for this coast.

The goods, which are competing successfully with the silks of Lyons, are readily sold in this State, Chicago, Boston, New York and Philadelphia. The annual product is 55,000 yards, worth $125,000.

On account of its favorable climate, and especially its freedom from thunderstorms, California is peculiarly adapted to the rearing of silkworms, which here produce a fiber elsewhere unsurpassed.

Japanese Fruit.

Mr. H. E. Amoore, president of the Japanese Tree Importing Co., of No. 120 Sutter street, S. F., is exhibiting specimens of orange trees of the seedless Oonshiu variety of oranges recently mentioned in the RURAL. He shows some Ooji tea plants and trees of the cumquot, which is a dwarf citrus fruit, three-fourths of an inch in diameter, somewhat like a sweet lemon, and much prized for preserving. Mr. Amoore tells me that he spends 10 months of every year in Japan and China, where he has been engaged in business for 20 years past. He says his company has purchased 16 acres of land near Vacaville for a nursery of Japanese fruits and flowers.

Photographic Views.

Mr. A. P. Hill, the portrait and landscape painter, has taken a score of photographic views of the interior of the fair. By the bromide process some of these have been enlarged into pictures strikingly realistic.

Loryea & McCauley exhibit excellent photographs, including views of the Lick Observatory, statuary pictures and children's photographs, for which the firm is justly celebrated.

The photographs colored by Mrs. A. P. Hill are of more than ordinary merit. The coloring being in oil, instead of water-colors, is perfectly transparent, and consequently does not conceal any part of the likeness. So perfectly natural do the portraits appear, that one imagines that he can see blood underneath enlivening the complexion.

Lick Paper Mills.

A good exhibit of paper, manufactured at Agnews, is made by the Lick Paper Company. A roll of paper in one piece, seven and three-fourths miles long, required three hours for its production. Several kinds of paper, such as news, Manila, raisin, book, and a special paper for wrapping citrus fruits for shipment, are on exhibition. The mills are run night and day, except Sunday; 10,000 pounds of paper are manufactured every 24 hours.

(*Continued on page 181.*)

SAN FRANCISCO: Junction Market, Pine and Davis Streets.

BAKER & HAMILTON.

SACRAMENTO: Nos. 9, 11, 13, and 15 J Street.

MANUFACTORY: Benicia Agricultural Works, Benicia, Cal. EASTERN OFFICE: 88 Wall Street, New York.

IMPORTERS, MANUFACTURERS, AND DEALERS IN

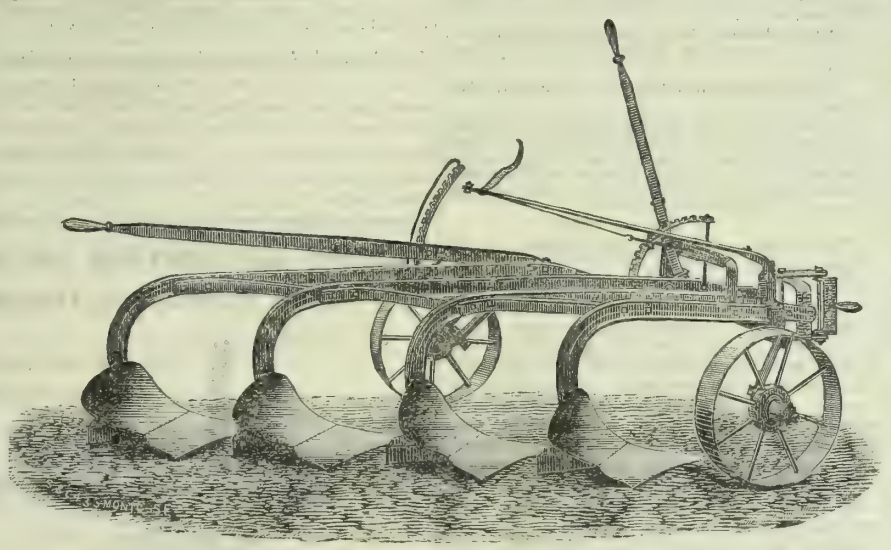
HARDWARE AND AGRICULTURAL IMPLEMENTS.

"PERFECT" GANG PLOWS

Are the only Steel Beam Gang Plows of the Bench Beam Series of Plows that will not clog in heavy stubble or weedy land.

They are so constructed that there is AMPLE SPACE under the beams and between the bottoms to let the stubble and weeds freely pass through.

"PERFECT" GANG PLOWS are made with either three or four bottoms or plows, each cutting 8 or 10 inches, securely ganged together, making a Gang Plow which is UNEQUALED for LIGHTNESS OF DRAFT, strength, durability, and GOOD PLOWING QUALITIES, and is in reality a "Perfect" Gang Plow.



MOLDBOARD VIEW OF "PERFECT" GANG PLOW.

The "PERFECT" GANG PLOW will plow in any soil, as the bottoms are shaped after patterns that have been found to work equally well in adobe and free soils. The moldboards are made of the best iron center steel, chemically hardened, and well polished.

If you contemplate purchasing a Gang Plow, don't fail to call and see the "PERFECT GANG" before you purchase.

HUBS AND BOXES of carrying wheels ARE DETACHABLE, and when worn out can easily be removed to put new ones in their place.
Each carrying wheel is provided with its own Regulating Lever, by which the driver can easily adjust either side of the plow to make it run level and true.
THE REGULATING LEVERS are VERY LONG and SECURELY BOLTED to the steel frame of the plow, and coupled to the crank axles by a heavy piece of round iron, which is adjustable to the regulating levers at three different holes, enabling driver to adjust his plow so that he can handle it with the greatest ease.
The "Perfect" Gang Plow is also provided with a long LAND GAUGE Lever, by which the driver can adjust his plow to take more or less land as he may desire.
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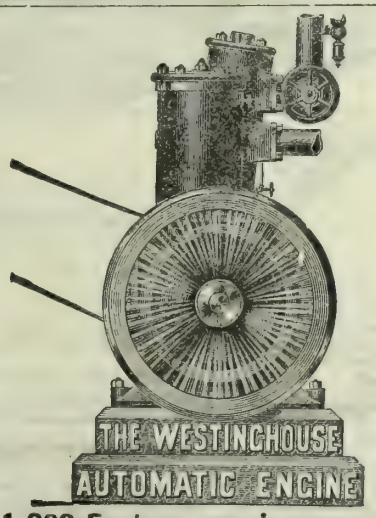
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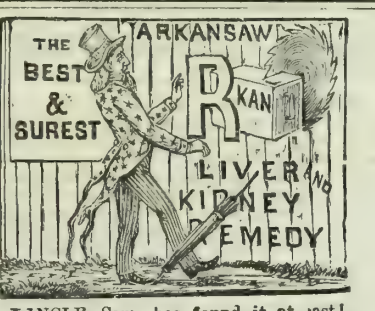
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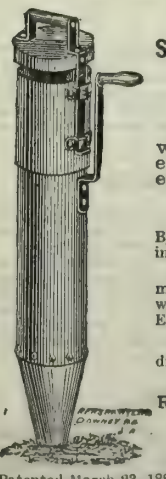
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Correspondence invited. Apply soon. Address, Ranch Owner, Box 2361, S. F.

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On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

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Send for Circular.

Ventura County Notes.

EDITORS PRESS:—New life has been infused into all classes in this county since the rains, long delayed, commenced, about one week ago. Up to that time the prospect for a fruitful season was certainly disappointing, but now fine crops are assured, though much grain will be sown later than usual. In this portion of Ventura county, the rainfall for the season, to the 5th inst., was only about one inch, and the hills were brown and bare; grain-fields looked unpromising, and the dust was thick on our roads. Since the date mentioned, the weather, most of the time, has been stormy, and now we have had over ten inches of rain, and, evidently, there will be much more. The soil of this section of the county is a deep, sandy loam, which quickly absorbs moisture, so that, soon after the heaviest storm, the land may be worked to advantage. It would be difficult to find soil more productive than this, especially when it can be irrigated.

The acreage sown to grain in this county to date is much smaller than usual, owing to the dry weather. But, as soon as the rain ceases, many plows will be at work. Along the coast, south of the town of Ventura, lies an extensive barley-growing region where, in ordinary years, the yield per acre is large, owing to the productiveness of the soil and the prevalence, during the summer, of fogs. The shipping point of this section is Hueneme, one of the best along the southern coast. A large proportion of the products of the beautiful, fertile and extensive Santa Clara valley of Las Posas, Coloma, Simi, Conejo and other valleys, is shipped from this point. All the valleys named are very productive, as is also the Ojai valley, where the finest of wheat is produced. We are confident that the crops of the county will this year equal those of average seasons.

There are few (possibly none) counties in the State that have greater and more varied resources than Ventura. We are aware that it is the custom—carried to extremes in many parts of the State—to write flattering, overdrawn descriptions of soil, climate, and resources and future development. But, while not writing for the purpose of puffing the county, having no individual interest in its prosperity, we may truthfully say that there is no richer county, agriculturally considered, in the State, though her resources are but partially developed. The mineral resources of the county are also very large.

More wealth is centered in Los Angeles county than here, for owing to the lack of railroad facilities in the past, Ventura's population has not attained large numbers; capital has not been to a large extent invested, and there has been no "boom." But a few days ago the first passenger cars from Newhall reached this place, and now travelers from San Francisco, Los Angeles and other points arrive here daily. Soon the rails will be laid to the pretty town of San Buenaventura, and then, in a few months, to Santa Barbara. All this means much to this county, which, until now, has been comparatively isolated, and already many persons are investing in land. Large Spanish grants, containing from 10,000 to almost 100,000 acres, yet remain intact within our borders, which will, in the course of a few years, be subdivided. Most of this land is rich, productive. There are excellent opportunities to purchase good farms here, upon reasonable terms, but the tendency of the real estate market is upward. The climate is said by many, well able to judge, to be superior to that of Los Angeles county. During last month there were 26 clear days in Ventura; the lowest temperature was 36° above; average, lowest 46° above; highest, 75°; average, highest 63½°.

Santa Paula and vicinity is one of the healthiest, most productive sections of the county. One farmer, near this village, raised squashes last season that had to be loaded on sleds when they were taken from the field. The largest one weighed over 250 pounds. A neighbor raised beets of over 80 pounds weight. The soil is of great depth everywhere, in places over 100 feet.

Oranges thrive in the above-named locality and we think could be successfully grown in all the valleys in the county. Trees in this neighborhood hang full of the golden fruit which will soon be marketed. Banana trees grow thriftily in the open air.

No county in this portion of the State is so well watered as this. Numerous streams, heading in the mountains clear and pure, find their way to the ocean here and there along our coast line. From several of these, water is taken for irrigation. Grain, flax, beans, corn, the staple products of this county, are grown, for the most part without irrigation; the finest fruits and nuts likewise. R.

Santa Paula, Feb. 14, 1887.

DR. W. J. DOBBINS, of Vacaville, has put out 8000 prune trees, one-half of which will come into bearing this year. During the fall of 1886, he experimented in drying with an Acme Steam Evaporator, and the results were so favorable that he has just purchased of Batchelor & Wylie a No. 2, to be set in place by April 1st. A sample of his manufacture was pronounced quite equal to the best French prunes.

SMALL-POX at Los Angeles is causing a good deal of apprehension. Most of the cases are light, but more than a dozen of them have been reported.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING FEBRUARY 8, 1887.

357,358.—COLLAR-BUTTON—L. Baer, S. F.

357,169.—SPRING SHACKLE—Bergman & Miller, Buena Vista, Ogn.

357,367.—FLOAT FOR CARRYING LINES OF PIPES FOR DREDGES—E. Chaquette, S. F.

357,373.—PROGRAM ALARM CLOCK—Ellen Cushing, S. F.

357,392.—SPECTACLE FRAME—W. R. Johnston, S. F.

357,395.—WATCH CASE—J. C. Landman, Eureka, Nev.

357,212. — HORSE-POWER—B. A. Lombard, Stockton, Cal.

357,329.—TENT—M. P. McKoon, El Cajon, Cal.

357,402.—FILTER—McLean & Cumming, S. F.

357,411.—HEATING APPARATUS—R. A. Rew, Pomeroy, W. T.

357,413.—HYDRAULIC RAM—John Richards, S. F.

357,424.—BALANCED SLIDE VALVE—A. J. Stevens, Sacto.

357,246.—WINDOW SASH—T. A. Sweet, Paso Robles, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

THE TEREDO.—W. H. Dall, curator of the Department of Mollusks, U. S. National Museum, writes as follows to the San Francisco *Chronicle:* "In yours of the 23d of January is a long, and for the most part, accurate article on the teredo; this name being taken in the general sense of referring to the whole group of timber-destroying mollusks colloquially so termed. But the writer has fallen into an error which is worth correcting. The siphonal end of *teredo navalis* which he copies from Appleton's Cyclopedia, is correctly drawn and named. The animal which bores the piles in San Francisco harbor, and which is figured in the same article, is not the *teredo navalis*, but a *xylotrya*, probably the *x. pennatifera* of Blainville. The teredo does not have the feather-shaped processes near the siphonal end (which are called pallets by naturalists), but has an oval or spoon-shaped pair, as represented in the figure copied from the cyclopedia."

Deep Sea Wonders

Exist in thousands of forms, but are surpassed by the marvels of invention. Those who are in need of profitable work that can be done while living at home should at once send their address to Hallett & Co., Portland, Maine, and receive free, full information how either sex, of all ages, can earn from $5 to $25 per day and upward wherever they live. You are started free. Capital not required. Some have made over $50 in a single day at this work. All succeed.

HORSE-BREEDING ON THE RANGE.—It has become a generally recognized fact that the raising of good, large work-horses is by far the most profitable of live-stock farming. This recognition has extended to the great ranges of the far West, where this industry has assumed a vast importance. Messrs. Bluett & Evans, of Oregon, now have 7000 horses on their ranges; the Post Percheron Horse Co., of Wyoming, has 4000; the Percheron Norman Horse Co., Colorado, 4200; and Gov. Warren, of Wyoming, some 2000. All these great breeding companies, the most extensive and wealthy in the United States, and many others of lesser importance, use only the best pedigreed Percheron stallions for their herds. And it is a notable fact that nearly all the stallions in use on these ranges have been selected from the Oaklawn Stud of M. W. Dunham, at Wayne, DuPage Co., Illinois, who has imported about 2500, and now has nearly 500 on hand.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER

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Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, best and cheapest of all economical and practical file binders. Newspapers are quickly placed in it and held neatly, as in a cloth-bound book. It is durable and so simple a child can use it. Price, size of Mining and Scientific Press, Rural Press, Watchman, Fraternal Record, Masonic Record, Harper's Weekly, and Scientific American, 75 cents; postage, 10 cents. Postpaid to subscribers of this paper, 50 cents. Send for illustrated circular. Agents wanted.

A New Discovery.

By a skillful combination of chemicals, the Capital Soap Company has prepared a Soap, "The Le Roi des Savon," or King of Soaps, which will do all ordinary washing without any rubbing.

Young Girls

Are at a critical period when they are about maturing and developing into women. The lack of watchful care at this time may result in fixing irregularities upon delicate organs and entailing a long list of "female weaknesses." All this may be avoided, and the young woman come through this period clothed in all the beauty and strength of a perfectly healthy organization by the aid of Dr. Pierce's "Favorite Prescription," prepared especially for female troubles by one of the most successful physicians of the day.

Russell Sage

Is a well-known operator in Wall street, who is generally considered as "up to snuff." Hence, it may have been quite natural that a countryman who reads the papers recently called at his office and asked for a package of Dr. Sage's Catarrh Remedy. He discovered his mistake, but he made no mistake in the article called for. This Remedy, when applied with Dr. Pierce's "Nasal Douche," will surely and rapidly eradicate the most aggravated case of catarrh, with all its unpleasant and dangerous accompaniments.

* * * * Male weakness and loss of power promptly cured. Book, 10 cents in stamps. World's Dispensary Medical Association, 663 Main street, Buffalo, N. Y.

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That time is the only really impartial test of genuine merit, and that according to the universal law of "the survival of the fittest," few sewing machines have withstood this test. Therefore, the only safe thing to do is to buy what time has proven to be the fittest"—the "DOMESTIC" SEWING MACHINE.

HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

J. R. CATES & CO. PROPRIETORS,
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To those in want of a first-class Spray Pump we can say that these Pumps are, without a doubt, the very best Spray Pumps to-day in the market. Made expressly for service in the Orchard, and the only Pump having all its parts, valves, etc., made of non-corrosive metal, and has received the highest awards over all others for the past three years. Send for circulars and prices.

CLIMAX SPRAY PUMPS,
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Cheap Money for Farmers.

Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

ORCHARD and VINEYARD ONE-HORSE SINGLE and TWO-HORSE GANG PLOWS, and Vineyard Cultivators of all kinds.

These Plows are Guaranteed to be the Best Orchard and Vineyard Plows made. Read the Testimonials below.





The single plow can be set to any position, and can be run to or from the trees or vines and within an inch of them without any injury to the same. The handles are also movable, and can be changed from one side to the other to suit the circumstances. This plow has several advantages over all other Vineyard and Orchard plows. Among these are: By changing the beam, no matter to or from the land, the plow will always run in a straight line. By the revolving drop clevis, the plow can be set to or from the land, or in depth. With this plow a man can plow a straight furrow, when he could not with other plows where the beam runs across them. It works as well in adobe or gravelly soil as in sandy or loamy. The plow weighs about 50 pounds. This plow will fill a long-felt want among orchard and vineyard men, who fully appreciate its great value. Plow and Singletree patented May 17, 1884.



PRICE LIST.—Single Plows, with singletrees, $15; Gang Plows with Garden City Plow bottoms attached, $35; Doubletrees with Patent Singletrees, $4.50. Extra Shares, $3.00. Extra Shares can be had of me.

TESTIMONIALS:

HOLLISTER, Sept. 11, 1886.

J. A. BILZ—Dear Sir: I take pleasure in testifying to the good merits of the plow and harrow made by you, which I have used at my vineyard to my entire satisfaction. WM. PALMTAG.

RUBY HILL VINEYARD, PLEASANTON, CAL., July 24, 1886.

J. A. BILZ, Esq., Pleasanton, Cal.—Dear Sir: Your two-horse Vineyard Gang Plow is a great success. It saves $2 a day over the old method of plowing, and is light in draft. We have two of them with which we turned under weeds this last spring over a foot high, and left the land in excellent condition. CRELLIN BROS.

CRESTA BLANCA VINEYARD, LIVERMORE, CAL., Nov. 27, 1886.

MR. J. A. BILZ—Dear Sir: I have tried several vineyard plows on my place, but none have given such good satisfaction as yours. I take pleasure in recommending it to those who desire good work done economically.
CHAS. A. WETMORE.

FRESNO VINEYARD, April 9, 1886.

I have tried Mr. Bilz's double plow, and although very skeptical at the time, I must acknowledge it worked well, and I am much pleased with it. I have made up my mind to put them in the vineyard.
D. D. HUDSON, Supt.

PLEASANTON, Sept. 9, 1886.

J. A. BILZ, Esq.—Dear Sir: I take pleasure in recommending your two-horse Vineyard Plow which I know to be a success, having purchased three of them in plowing in the past season, in my vineyard. Undoubtedly, they are the best implement of the kind I ever used. They are light in draft. It turns the ground over well, and is so regulated you can plow any depth you desire, and it leaves the ground even. It also turns the weeds under better than other plows I have used. I have saved $2.50 per day on each plow. I would not be without the plow for twice their cost. Yours truly, J. A. ROSE.

LIVERMORE, August 1, 1886.

J. A. BILZ, Esq., Pleasanton, Cal.—Dear Sir: We have used one of your Vineyard Gang Plows during the past season and believe it to be a good plow, doing the work in a thorough and economical manner, and can heartily recommend it to those wishing an implement of this kind. Yours respectfully, S. OSTERHOUT.

LIVERMORE, Feb. 1, 1886.

MR. J. A. BILZ—Dear Sir: I have tried your vineyard plow and find that it works well and gives perfect satisfaction, and I take pleasure in recommending it to any one who wishes a good vineyard plow. Your patent singletree is also a success, and when used in an orchard will save many a tree from being injured. Yours truly,
F. KURTZ, Foreman of C. A. Wetmore's Vineyard.

Persons interested in Vineyards and Orchards are invited to call at my shop and examine and try the plow. It is warranted to do all claimed for it. For further particulars apply to

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The WEST COAST LAND COMPANY now offering in subdivisions the

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

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Of 11,000 acres, and 12,000 acres of the

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All lying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

Will sell

AT PUBLIC AUCTION

About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch,** consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

2100 acres of the **Huer Huero Ranch** in 20 subdivisions.

These are all agricultural and fruit lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara county, and require

NO IRRIGATION.

Title, U. S. Patent and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments, at 2, 3, 4 and 5 years; interest 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

An additional charge will be made of $5, for deed in sale of town lots, and $25 in other cases for expenses of sale, including making and recording all papers.

Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

SALE WITHOUT RESERVE,

Providing that no bid will be entertained at less than 60 per cent of schedule prices.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo. From San Francisco, take 8:30 A. M. daily train, S. P. R. R., to Templeton.

Parties wishing to inspect said lands with a view to purchasing at the Auction, or any of the Company's Land at private sale, will be shown the property free of charge by applying at the Company's office in Templeton.

Maps of all the ranch subdivisions, of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands with a new descriptive catalogue are in press and will be sent free on application after the 25th inst. (February, 1887.)

Address:

C. H. PHILLIPS, Manager,
San Luis Obispo, Cal.

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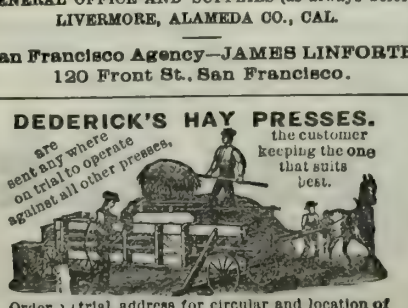
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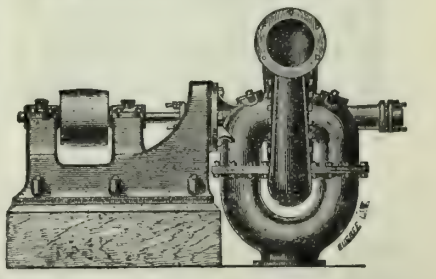
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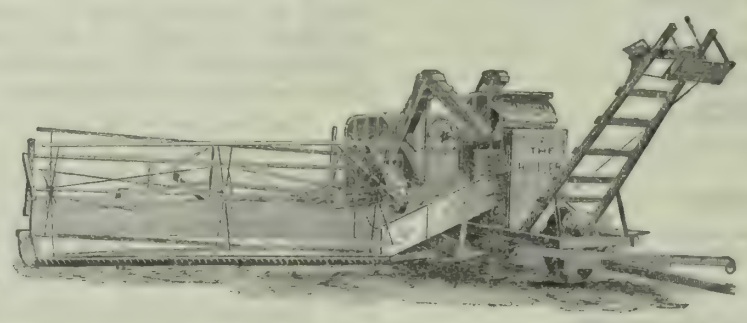
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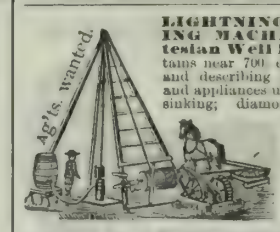
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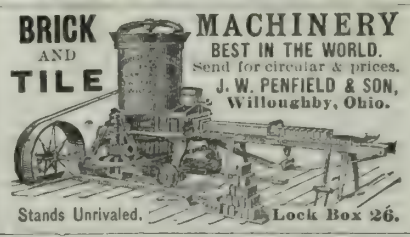


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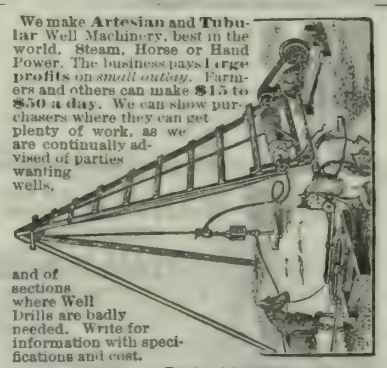
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Seeds, Etc., Continued on Page 186.

Central California Citrus Fair.

(*Continued from page 176.*)

Literary Exercises.

[Unfortunately our correspondent's notes became disarranged, and the accounts of the evenings' exercises do not follow the order of dates. The following paragraphs are supplementary to those in the second column of page 176.—EDS. PRESS.]

Wednesday, Feb. 9.—After two selections had been played by the band, a platoon of Company B, Fifth regiment, Captain A. K. Whitton, gave a bayonet drill, in which rare proficiency was shown, reflecting credit alike upon themselves and their commander.

Friday, Feb. 11.—The band having rendered an overture, "Moonlight Will Come Again" was pleasingly sung by a quartette, consisting of Misses H. Buckley and O. Knox, and Messrs. J. H. Hughes and Elsworth L. Rich. George Babcock rendered a vocal solo, "Good Night, Sweetheart," in fine style. Miss M. E. Boots gave a vocal solo, "Titania," and as an encore, "Thou Hast Learned to Love Another" with pleasure to all present.

The program was concluded with "Good-Night, Gentlefolks," by the quartette above mentioned.

Saturday Evening, Feb. 12.—Hon. J. Simms, Assemblyman from Nevada county, delivered an eloquent impromptu address. Mrs. Skelton, of S. F. followed with an address, of which the *Mercury* furnishes the following synopsis:

Husbands and Wives.

"A man is not a man until he has got a good wife to help him along; he is but a sorrowful creature compared with him who has a loving, virtuous wife. People who get married nowadays do not treat the matter as a sacred obligation. They regard it in about the same light as a picnic or an excursion. At the altar the husband says 'with all my worldly goods I thee endow.' That doesn't mean that his wife has to ask him for every 10 cent piece she requires. It doesn't mean that he should speak of the property they possess as 'mine.' A great many husbands treat their wives worse than strangers, and the little attentions which they bestow before marriage are discontinued and their wives are excluded from the business affairs of their husbands. The eastern people in this beautiful hall tonight must be ashamed, as I was once, at the wonders of this State. Here you get more sunshine to a yard than they have to a mile in the East. You can't find a fairer valley than that of Santa Clara. If you want to go up high you can climb the Santa Cruz mountains, from where you can look down on your neighbors a distance of 3000 feet. We are wont to regard California as the gem of America, but it never will be until its women are enfranchised, and of all the laws passed by the Legislature none better could be adopted. One of the errors committed by young married people is that of going to board in a hotel instead of keeping house, and this is the cause of many difficulties. Some men don't like to hear women express opinions and are quite astonished when they find that women know as much as they do. These views belong to the dark ages, and I hope no one in Santa Clara valley possesses them." She spoke of the evil effects of parents neglecting to give proper attention to their children, and compared the growth of a child to a beautiful lime tree before her. If neglected it would grow up warped, gnarled and knotted, but if properly cultivated and cared for, it would become beautiful and productive of good. She referred to the evils of intemperance, and made a strong plea for prohibition and the enfranchisement of women. She closed by paying a glowing tribute to Santa Clara valley, and said "it well deserves the name of a paradise." Her remarks were repeatedly applauded.

Tuesday Evening, Feb. 15.—The program announced for this evening was as follows: Music by Parkman's band; vocal solo, Miss Hannah Buckley; recitation, Miss Ruth Fowler; vocal duet, Misses Bessie Newhall and Maggie Bird; orchestral selections by the band.

Friday Evening, Feb. 18.—Parkman's band, which played every evening during the week, introduced the exercises with an overture. Messrs. C. Sturmann, F. Bunemann, H. Hirsch, A. Schmidt, F. Hauer, A. Graessle, L. Magenheimer and H. Roehr, of the San Jose Turn Verein Glee Club, sang "Good-Night" (Abt), and "Farewell, My Love," as an encore. Mr. Charles Trephagan sang "Poor Old Dad," and as an encore, "When the Roses Come Again." "Dem Golden Stars" and "Roll, Jordan, Roll" were well rendered by Messrs. Jacox, Butler and Smith. The "Soldier's Farewell" (Kinkel) was sung by the Glee Club. Mr. Harrell gave inimitably a baritone solo, "Rocked in the Cradle of the Deep." Mr. Travis closed the exercises with a drum solo.

Saturday Afternoon, Feb. 19.—A banquet was tendered by the management to the ladies of Santa Cruz and to the members of the press. On tables placed on the stage was spread a sumptuous feast, to which 45 persons sat down. A toast given by Hon. Cyrus Jones to the ladies of Santa Cruz was responded to by the reading of a telegram, as follows, from Mrs. Isabel H. Raymond, Secretary of the Santa Cruz Development Association: "Santa Clara and Santa Cruz—the queen counties of Central California! May the bond of friendship between them, woven of fruit and flowers, never be severed."

President Jones then proposed the toast, "The Press," to which Captain Frank Dunn gave a response.

President Jones then proposed the following toasts: "Santa Cruz," responded to by Mr. A. Loomis; "Los Angeles," Mr. Conrad, of the Los Angeles *Tribune;* "Stanislaus," Mr. G. A. Goodell; "San Francisco Press," J. E. Baker of the *Alta;* "Press of Santa Clara County," S. W. DeLacy; "San Jose *Mercury*," A. M. Kelley; "The Central California Fair," H. A. Brainard, of the *Santa Clara Valley;* "Literary and Musical Talent," Mrs. E. O. Smith.

The following named ladies and gentlemen participated in the banquet: Mrs. A. Pope and Mr. Loomis, of Santa Cruz; Mr. Goodell, of Stanislaus; Mr. and Mrs. Conard, Los Angeles *Tribune;* Miss Peck, San Francisco *Chronicle;* J. E. Baker, of the *Alta;* Mr. Dewey, of the RURAL PRESS; Henry A. Brainard, *Santa Clara Valley;* Mr. Kelley, of the *Mercury*, and S. W. DeLacy, Alfred Cridge and T. O. Smith, of the *Times;* Mesdames Buzzo, L. J. Watkins, E. O. Smith, A. J. Corey, M. Hale, J. Jones, Engalls, Hooker, K. Secord, N. A. Saunders, L. C. Feely, Beckford, T. O. Smith, Aram Walten and Potter; Mr. and Mrs. Newhall, Mr. and Mrs. A. P. Hill, Mr. and Mrs. Woodhams and Mr. and Mrs. G. W. Tarlton; Misses Walton and Watkins, of San Jose; Miss Gleeson, of New York, and Messrs. Ross, Keesling, Little, Gilmore, Corcoran, Secord, Adams, Jones and Dunn.

In the evening the pavilion was crowded to its utmost. Promenading and dancing were carried on till a late hour, many young ladies appearing in white. At 10 o'clock the band played "Home, Sweet Home," and the 14 days' season came to an end.

Miscellaneous Exhibits.

F. H. McCullough, of Los Gatos, shows Washington Navel and Mediterranean Sweet oranges, Eureka lemons, and Prœparturiens walnuts from four-year-old trees.

Mr. C. R. Seely, of San Jose, exhibits oranges and walnuts.

Mr. W. W. Montague, of Los Gatos, shows a fine cluster of oranges.

Mr. Wm. R. S. Foye, of Berryessa, sends five boxes of oranges.

Mr. A. S. McWilliams, of the Willows, shows Egg and Silver prunes.

Judge R. P. Peckham exhibits from the San Jose Woolen Mills blankets, cassimeres and ready-made clothing.

An extensive display of canned goods is made by W. H. Wright, superintendent of the San Jose Fruit Packing Company.

Mr. C. Schofield shows raisins and prunes.

Mr. F. F. Britton, of the Willows, brings prunes, walnuts and sage.

Mr. L. Bamhiser, of the Willows, has a box of English walnuts.

Mr. C. L. Holcomb, of Berryessa, shows two boxes of raisins.

Judge Logan, of Santa Cruz, sends lemons.

Mrs. H. C. Pitkin, of the Willows, enters three specimens of cactus fruit.

Mr. E. A. White, of Hester district, sends Yellow Danvers and Globe onions grown from seed selected annually for 11 years.

Mr. A. R. Woodhams, of Milliken's Corners, sends a specimen of cactus and its fruit.

A box of raisins has been received from Happy valley, Shasta county.

Mr. Geo. W. Wilson, of San Jose, brings a box of Smyrna figs.

J. W. Eastin brings a sample growth of prune tree.

Mr. R. D. Fox, nurseryman, of San Jose, makes an elegant display of potted plants.

A box of raisins is brought from the Lone Hill vineyard, Santa Clara county.

Mrs. Conklin, of Los Gatos, enters some beautiful lilies.

Hon. Cyrus Jones exhibits a box of oranges.

Mrs. W. Whittle shows the tree melon.

Mr. Thos. Gibson, of Los Gatos, has a basket of oranges and a vine of green peas.

Miss Maggie Tennant, of Eden Vale, brings a basket of flowers.

Mr. L. Parkhurst, of the Willows, exhibits excellent white winter pearmains and Newtown pippins.

Ada B. Cameron, of Laguna district, shows excellent late potatoes.

The Oakland *Times'* exhibit includes lemons grown by John Ballard, Juan Galligos and Mr. Curtner, of Warm Springs; oranges grown by Judge Garber and L. Stone; citrons, pomegranates and dried olives and persimmons by G. W. Watson and H. Delger, of Oakland.

Mr. E. W. Harrison, whose beautiful 10-acre farm is located within the San Jose city limits, shows some remarkably fine English walnuts from a 20-year-old tree which measures 4½ feet in circumference, is 24 feet in hight, has a 38-foot spread of limbs, stands in soil 16 feet deep, and has borne for 15 years, yielding 4 bushels of nuts the past season. Mr. Harrison exhibits some excellent dried prunes from his eight-acre orchard, long ears of corn and monstrous red beets.

The Management.

Too much credit cannot be given to Hon. Cyrus Jones, the president, and Capt. Frank Dunn, the secretary, who worked incessantly for several weeks previous to the opening of the fair, traveling through the county and soliciting exhibits from the fruit-growers. The other hall directors who worked very hard for the success of the fair are, Messrs. G. W. Tarleton, A. V. Woodhams, Horace G. Keesling, Mrs. N. A. Sanders and Mrs. S. T. Ingalls.

The Committee on General Decoration, who are entitled to their meed of praise for the superb arrangement of bamboos, palms, ferns and other ornamentations, are Mr. D. C. Feely, chairman, Mr. and Mrs. S. P. Sanders, Mr. and Mrs. A. Loomis, Mr. W. H. Gilmore and Mr. Joab Powell. The Special Decoration Committee were Mrs. E. O. Smith, chairman, Mrs. L. J. Watkins, Mrs. Dr. J. K. Secord, Mrs. Sarah Paddock, Mrs. A. P. Hill, Mrs. Dr. A. J. Cory, Mrs. T. O. Smith and Mrs. M. G. Buzzo. The happy disposition of fruits into sundry artistic devices greatly hightened the effect. In the work of this committee, which also had charge of the floral exhibits, the master hand of the artist is plainly seen.

Mrs. E. O. Smith, whose labors have been untiring, constituted the Committee on Literary and Musical Entertainments. Mrs. A. J. Fowler, Miss Mattie Fowler, Mrs. Henry McClay, Mrs. D. B. Fuller and Mrs. Gilbert Cain, who made the evergreen display so attractive, are deserving of special mention.

Conclusion.

The Citrus Fair has proved an unqualified success, surpassing expectation and surprising, beyond measure, the oldest inhabitant. Everybody knew that citrus fruits are successfully grown in this part of the State, but nobody surmised that so astonishing a display could be made. Truly this is a land flowing with milk and honey, a land of flowers in perennial bloom, a land where one may sit under his own vine and fig tree, a land of olives like the one of ancient story, a land where the almond tree flourishes and the grasshopper has not become a burden, a semi-tropical land of golden fruits, but little removed from the Golden City.

THE BETTER IT GETS, ETC.—Voluntary compliments from a good source, like the following, are encouraging to all connected with a journal striving faithfully to serve its constituents. Such a substantial communication stimulates all to put forth their very best efforts. It also reminds us that, all in all, we have much to encourage the RURAL from kindly manifestations coming to us in many varied but unmistakable ways of appreciaton, for which we are thoroughly grateful.—EDS. RURAL.

WATSONVILLE, Feb. 19, 1887.

Dear Sir and Brother: I am reminded by your little label that the time has again rolled around when it is in order to remit for the RURAL, which to me is always a pleasure. The oider it grows the better it gets. This time I will take advantage of your liberal seed offer, a list of which I send. Inclosed find $3.25 for same with the RURAL. Wishing you continued success, my wife and I join in tendering to Sister Dewey and yourself our kindest regards. Yours respectfully and fraternally,

A. P. ROACHE.

BEDS AND BED CLOTHING.—The covering of a bed ought to be light as well as warm. Woolen blankets are far more healthful than are heavy comforters which admit of no ventilation, but instead, absorb and retain the exhalation from the body. Beds and bed clothing should be aired frequently. Many housewives consider the airing of the sleeping-room all sufficient, but this is a mistake. Not only should mattresses be turned and aired at least three times each week, but pillows and bolsters ought to be beaten, shaken and exposed to the sun, every two or three days. If beds and their furnishings are not carefully cared for the bedding soon comes to have a stuffy, disagreeable odor, and that odor means sleepless nights, for perfect rest is gained only in a bed that is fresh and clean.

THE KING COOK BOOK.—Evidently the King of Hearts intends to make his own tarts hereafter because of the ill luck which befell the queen's baking. The first official announcement of this fact is the publication of the "King Cook Book," a collection of choice recipes contributed by ladies of Sacramento, and published by the Capital Soap Co. of that city. It has 150 pages, most of which are filled with recipes to which the initials of the contributor are affixed as a certificate that they have been tried and approved. A few advertisements are thrown in for spice. The price of the book is 50 cents.

J. N. LUND, of the Piedmont Poultry Yards, in Oakland, has not only taken high rank as a breeder of Wyandottes, Langshans, Plymouth Rocks and other popular varieties of poultry, but prides himself on his Homing Antwerps and Scotch terriers.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
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J. L. DOYLE—Tuolumne and Calaveras Cos.
W. J. FREEMAN—Sierra and Butte Cos.
A. J. HARE—El Dorado Co.

NORMAN HORSES.—Jas. A. Perry, of Riverview Stock Farm, Wilmington, Ill., has just arrived at Petaluma, Cal., with a fine lot of imported Norman horses. They arrived in fine condition after an overland trip of 14 days, and can be seen by all lovers of fine horses at the Petaluma stables. Stock-breeders, who have seen them, pronounce them the best lot ever imported into California. Mr. Perry was the first importer of Norman horses from France into California. He brought out the Duke de Chartres, Crown Prince and Rollin, three of the best-known, most celebrated and valuable Norman stallions ever brought to this coast. The numerous and splendid progeny of these three stallions have placed Sonoma county in the front rank of fine horse-producing counties. This is his sixth importation to Petaluma, and purchasers from him have always found their horses to be as represented. In fact, satisfaction was given in every case. See advertisement in this paper.

AGRICULTURAL BOOKS.

Sold by Dewey & Co., Publishers "Pacific Rural Press."

CALIFORNIA FRUIT GROWER.—A practical Handbook for the orchardist (in preparation).

CATALOGUE OF EUROPEAN VINES—With synonyms and brief descriptions, by I. Bleasdale, D. D. Invaluable to those growing the vinifera. Price, in pamphlet, 50 cents.

ORANGE GROWING IN CALIFORNIA—By T. A. Garey, of Los Angeles. The most comprehensive treatise on the growth of this fruit. It contains full instructions for growing the trees, planting and care of orchards, etc.; 227 pages. Price, 75 cents.

SILK GROWERS' MANUAL—By W. B. Ewer, A. M. A practical treatise full of useful hints for beginners in this State; 20 pages. Pamphlet, price 25 cents.

FRUIT GROWERS' CONVENTION REPORTS.—These annual conventions have resulted in bringing out the best and most useful information concerning the growth of different fruits in this State. The subjects discussed are of the most direct practical value and the facts laid down will prove helpful and suggestive to all in the fruit business. We have the reports of 1881, 1882, 1884, and 1885—the first for 10 cents, the others at 25 cents each.

THE AGRICULTURAL FEATURES OF CALIFORNIA—By Prof. Hilgard, 138 large pages, bound in stiff cloth, with colored maps, $1. This book is the best general review of California soils, climate and productions in existence.

NILES' STOCK AND POULTRY BOOK—Pamphlet, giving directions applicable to poultry growing in this State; 120 pages, post-paid for 50 cents.

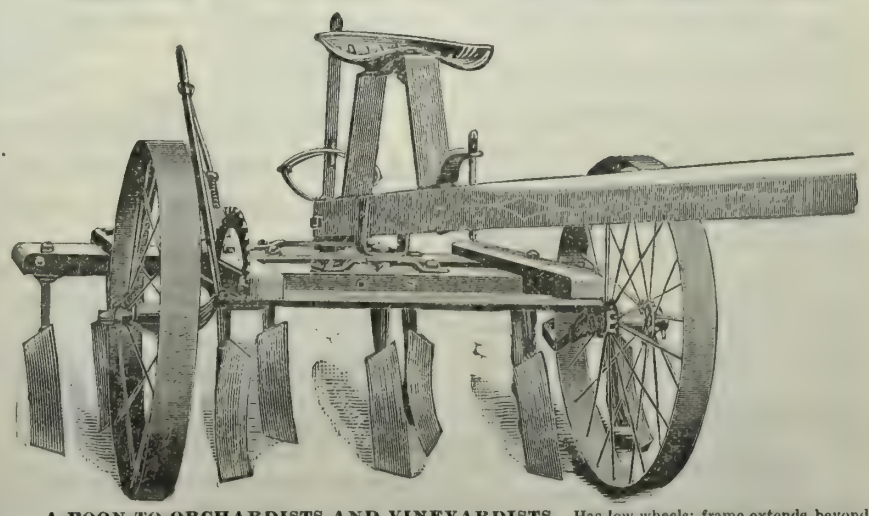
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ARCHITECTURE SIMPLIFIED OR HOW TO BUILD A HOUSE.—Contains plans and amounts of materials for a number of buildings from a little cottage to a large dwelling. Price, ——

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Tone Touch Workmanship and Durability.
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Real Estate and Insurance Agent
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A BOON TO ORCHARDISTS AND VINEYARDISTS. Has low wheels; frame extends beyond the wheels, enabling close work and preventing the rubbing of bark off trees and vines. Has patent adjustable shovels and shifting tongue; the latter is valuable for side-hill work, and can be used to advantage on level ground. Give us a trial order. Manufactured by
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Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

T. D. MORRIS, Sonoma, Cal. Extra fine Wyandotte Cockrels for sale cheap. Address, inclosing stamp.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

O. J. ALBEE, Santa Clara, has the finest fowls this season he has ever raised. Parties needing new blood will do well to write him before buying. Also Scotch Collie Pups. Prices to suit the times.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

H. J. GODFREY, San Leandro, Cal., first-class P. Rocks and Wyandotte eggs, $2 per setting; no circulars

PABLO POULTRY YARDS, San Diego, Cal. Large establishment. Send for catalogue.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

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M. D. HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

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E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

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E. W. WOOLSEY & SON, Fulton, Sonoma Co., imp'rs & b'ders Thoroughbred Merino, & Jersey Cattle.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine; high graded rams for sale.

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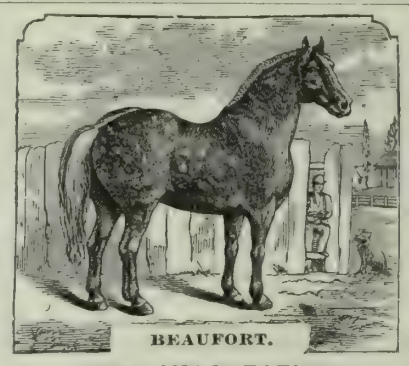
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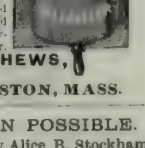
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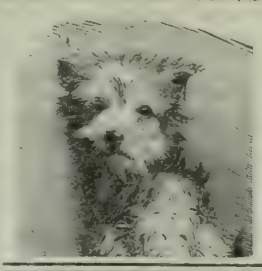
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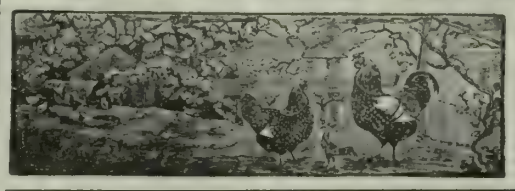
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Is absolutely clean and innocent of any foreign taste or taint.

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Constructed with a View to Equalizing the Temperature in every part thereof.

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This Generator and the Improved Steam Cheese Vat, which it is designed to operate, has **superseded all others** in the vicinity of Gilroy, and has received the highest praise from cheesemakers wherever it has been tried.

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Inventor and Patentee,
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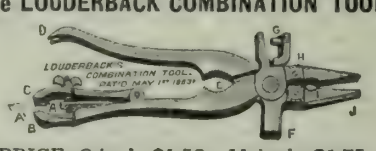
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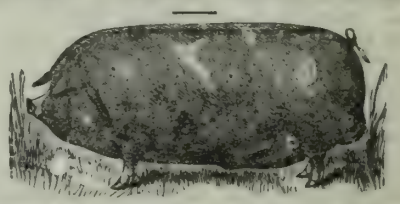
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Breeder of pure-bred Poland China Pigs of the Black Beauty, Black Bess, Bismarck, and other noted families. Imported boars King of Bonny View and Gold Dust at head of the herd. Stock recorded in A. P. C. R. Pigs sold at reasonable rates. Correspondence solicited. Address as above



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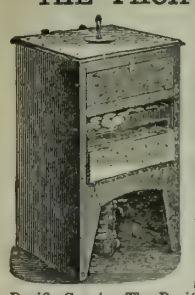


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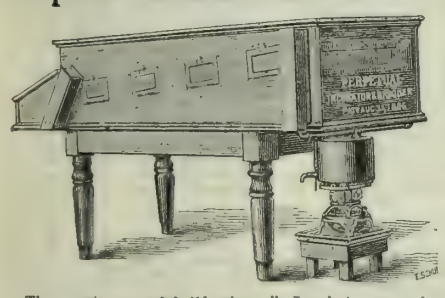
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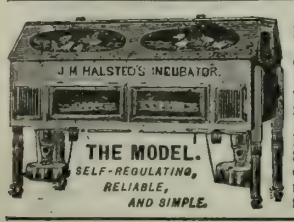
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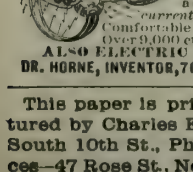
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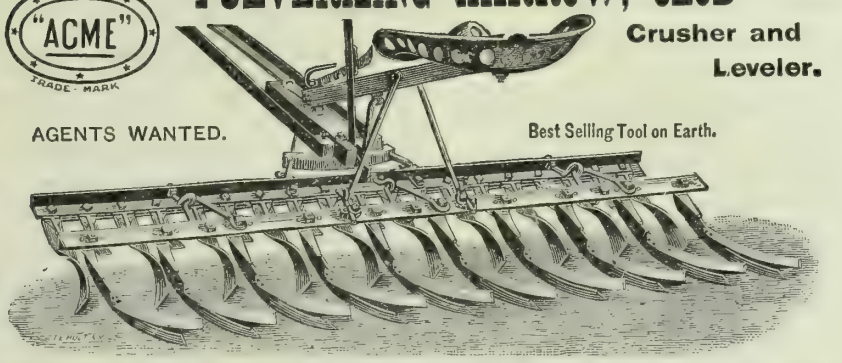
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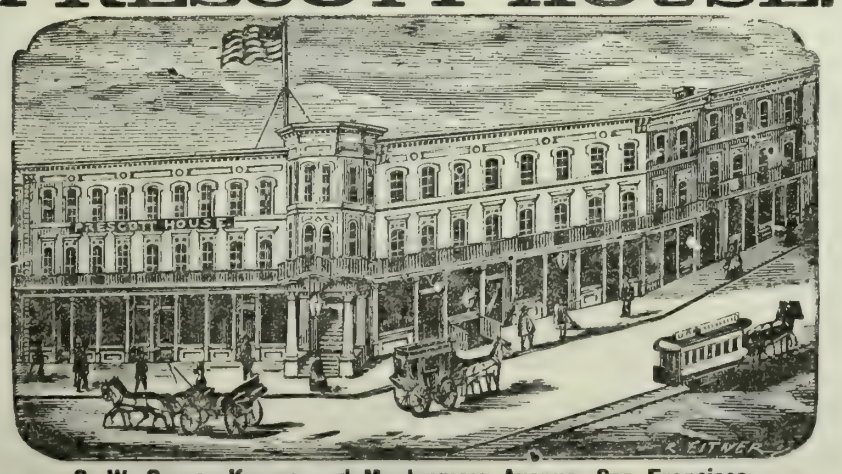
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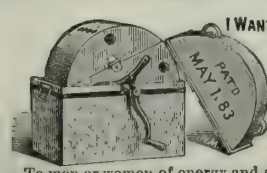
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 23, 1887.

The past week was broken by cold rains and a holiday, consequently trading in all lines was light. The eastern wheat market has fluctuated to some extent, with a weaker closing to-day. The English wheat market has ruled fairly steady, closing as follows:

LONDON, Feb. 23.—Cargoes off coast, slow; cargoes on passage and for shipment, very little demand; Mark Lane, quiet; Cal. wheat off coast, 36s 6d; Cal. wheat just shipped, 37s 9d; Cal. wheat nearly due, 36s 6d; Liverpool wheat, spot, very quiet; Liverpool wheat, Cal., 7s 4d@7s 7d.

Foreign Review.

LONDON, Feb. 21.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: The deliveries of native wheat have been very small, and the London market is steadier. Prices at the leading provincial exchanges show an advance of 6d. The sales of English wheat during the past week were 49,427 quarters, at 32s 11d, against 73,557 quarters, at 29s 4d, during the corresponding week of last year. Country flour is slow of sale, but values are slightly hardened. Foreign wheats are a shade steadier. The supplies continue so large that improvement is impossible, unless in the event of war. Foreign flour is slow of sale and weak. American brands are cheaper. Corn and barley are dull. Oats are in demand. There were six arrivals of wheat cargoes. Two cargoes were withdrawn and three remain; one American red winter, one Californian and one Oregon. To-day's market was firmer. Both English and foreign wheat were 6d dearer. Flour was irregular and some sales were 6d lower. American corn was 6d cheaper. Oats were 3d lower. Linseed was firm and 3d dearer.

Eastern Wool Markets.

BOSTON, Feb. 19.—Manufacturers have not felt disposed to purchase beyond immediate wants, and trade the past week has been quiet, with no material change. Sales, 1,563,500 lbs. Holders are not over-anxious for sales, and have faith in the future. On the other hand, manufacturers hope before long to be able to purchase supplies at lower rates. Meantime the market remains inactive. The movement of woolen goods continues unsatisfactory. The orders that are being placed are unusually small. Oregon wool is in fair demand. California wool is quiet. The sales include 50,000 lbs fall at prices working up to 20c, and 30,000 lbs spring on private terms. In Western unwashed and unmerchantable fleeces there have been sales of 10,000 lbs medium at 25 to 30c; 5000 lbs medium at 30c; 30,000 lbs fine at 21c, and 4000 lbs on private terms. The receipts of the week have been 4625 bales domestic and 1529 bales foreign, against 5138 bales domestic and 2134 bales foreign for the corresponding week last year.

NEW YORK, Feb. 20.—The wool market was quiet, and, although no change in prices was quoted, the tendency seems in favor of the buyer, especially for fleeces. Foreign wool is quiet but steadily held. The sales of the week included 10,000 lbs delaine at 38@39c; 20,000 Eastern Oregon at 23@24c; 10,000 scoured do at 57@58c; 5000 scoured Colorado at 45@47c; 20,000 fine Montana at 22@24c; and 10,000 Territory at 18½@22c.

The leading feature of the Boston market has been the presence of one of the largest Chicago dealers, who has been trying to place 1,000,000 lbs of Wyoming and Montana wools, and seems determined to close out his wools, to do which he has named prices lower than corresponding wools have been and are held for here. This has affected the general market for Territory wools, which can be quoted about 1c lower than a week ago. Among sales were 165,000 lbs Territory at 18@26c.

The Philadelphia market is quiet, but the aggregate movement is fair and prices are well maintained. Among sales were 10,000 lbs scoured California at 46½c; 6000 lbs pulled California at 54c; 6000 lbs defective California at 17c; 65,000 lbs Oregon fall defective at 18c.

New York Wheat Market.

NEW YORK, Feb. 20.—Wheat, spot, has had fair inquiry the past week from both shippers and millers. Prices, though somewhat fluctuating, ruled ¼@½c higher. Futures have been active and irregular, closing heavy at bottom prices, with May off ⅞ of a cent, at 91⅞ cents, but other months down ¾@⅞ of a cent, as follows: April, 90⅛ cents; May, 91⅛; June, 92½; July, 93⅜; August, 93⅝; September, 94⅜.

Dried and Canned Fruit at the East.

NEW YORK, Feb. 20.—Raisins—Dull. Sales are reported of 1200 boxes of 2 and 3 Crown loose California at $1.25@1.50. Two Crown loose Muscatel, quoted at $1.25@1.30; London layers, $1.65; California Londons, $1.50@1.90.

Prunes—Turkish, quiet, at 6¼c; French, quiet and steady, at 8¼@8⅜c for sixties and nineties.

Citron is in limited supply and firm at 18¼@18½ cents.

Currants—Quiet, at 4¼@4½ cents.

Canned Goods—Tomatoes are very steady, and prices well maintained. Peaches are doing rather better. Canned peaches $2.25, pears $2.50@2.75, plums $2, grapes $1.50@2, apricots $2.

California Fruit in Chicago.

CHICAGO, Feb. 20.—Oranges have been somewhat steadier during the week, as there are not many more Floridas to come forward. A fair demand was noticed for California bright Riversides at $2.25@2.50, and California Navel oranges, according to quality, $3.50@6.00.

Dried Fruit—There is no regular demand for dried fruit of inferior quality. Choice bright apples, either sun-dried or evaporated, are steady. The demand at present is only moderate; still good fruit is scarce and holders are not anxious. Other kinds of fruits are very quiet. Peaches are especially steadier. It is said that California peaches are superseding domestic fruit of that kind here, as the California variety is thought to be better. In California dried fruits there was a light trade at about former prices. Prunes, French, per lb, 8½@11½c; plums, pitted, 11@13; peaches, halved, 12@14; peaches, halved, pared, 20@21; figs, 6@8; nectarines, 9; pears, 8@10; raisins, London layers, 20-lb. boxes, $1.45@1.50; loose Muscatel, $1.30@1.35.

California Products in New York.

NEW YORK, Feb. 20.—Seeds—Steady, with a fair jobbing business. California yellow mustard, 3⅜@3½ cents.

Honey—The stock is reported running very low, and a bare market is soon anticipated.

Beeswax—The stock is about exhausted here, there being little or no Southern and Western remaining. California, on the way, is held at 25c.

New York Hop Market.

NEW YORK, Feb. 20.—The market drags. Outside of moderate purchases by brewers, there is no business to speak of. Fine goods are fairly firm; medium grades steady. Pacific Coast crop, 1886, prime to choice, 22@24c; do., fair to good, 17@21c; do., crop 1885, good to choice, 8@10c.

Local Markets.

BARLEY—The market has fluctuated very little the past week, encouraging the belief that stocks are being concentrated. On Call, to-day, strong buyers took all sold and bid for more. Recorded sales were as follows:

Morning Session: Buyer season—300 tons, $1.02⅝; 500, $1.02¼; 100, $1.02⅞. Seller season—100 tons, 97¾c ₩ ctl. Afternoon Session: Buyer season—200 tons, $1.02½; 1600, $1.02¾; 100, $1.02¼. Seller season—200 tons, 97½c. Seller 1887—100 tons, 91c. Buyer 1887—100 tons, $1.05; 300, $1.05½; 100, $1.05⅝ ₩ ctl.

BUTTER—The demand is slow, barely equal to the receipts, which are again increasing. Improved pasturage, it is claimed, will increase the production still heavier. The market closed weak.

CHEESE—The market holds strong under light supplies, light receipts, and a good demand. Very little eastern is seeking this market.

EGGS—The market continues weak, notwithstanding an increased demand is reported. Several heavy consigments from the East have put in an appearance.

FLOUR—The market is quiet, with some shading in prices to close out consignments.

WHEAT—The engaged tonnage shows a slight increase. It is now thought that holders who did not wish to pay taxes have sold, and after the present week sellers will be fewer. Trading the past week was light. On Call there was fair trading in options, but at prices showing very small fluctuations, even when a decided decline at the East was reported. To-day's sales were as follows:

Morning Session: Buyer season—500 tons, $1.55; 1500, $1.55¼; 800, $1.55⅜; 2000, $1.55⅝. Buyer 1887—300 tons, $1.59; 300, $1.58⅜; 400, $1.58½; 400, $1.58¾ ₩ ctl. Afternoon Session: Buyer season—1500 tons, $1.55¾; 1100, $1.55⅝. Buyer 1887—300 tons, $1.59 ₩ ctl.

[COMMUNICATED.]

Market Information.

Bags.

There have been free sales for June-July delivery, at 6¼ to 6⅜ cents for standard Calcutta bags. At the close it is claimed that 6½@6¾ cents is asked for the same delivery. This advance restricts sales.

Cereals.

European mail advices report the statistical position of wheat very strong, although the early receipt of new wheat from Australia, Chili, and India was being used by the bears to depress prices for cargoes of Californian. It is quite certain that even with this strong lever the market will not sink to as low figures as ruled the forepart of last year. The war talk abroad is not having the effect on the market it would, were it not generally believed that much of it is inspired by stock speculators and also newspapers so as to make their papers sell. Eastern advices continue to note a lessening visible supply, with last week's returns showing a decided falling off, compared with the preceding week. The New York and Chicago markets for future delivery ruled fairly steady during the week. Crop advices from the large grain-growing States continue favorable.

On this coast, crop advices from the State of Oregon and Washington and Idaho Territories are of a most flattering character. The acreage seeded is larger than last year. The stock of old wheat is reported to be less than at this time last year. In this State the acreage seeded to wheat has been largely added to the past week, with plowing still going on in the more favored localities for late seeding. The plant of the early sown grain is reported to be looking well, although, as a rule, it is not high, yet it has strong roots and is well stooled out.

In the local wheat market there was a strong market at a slight advance on Thursday and Friday last, followed by an easier tone on Saturday, but Monday there was a steadier feeling. The bears vainly tried to break values, but failed, for apparently strong buyers took all offered, which creates the impression that there is a large short interest which may be compelled, later on, to fill at higher prices. The war talk has caused an advance in grain insurance on shipments to Europe, but then this is only a small item and will not react against wheat values.

Barley has ruled fairly steady throughout the week. The consumption is very large, with the probabilities that it will be increased very considerably by April next, when railroading is more generally commenced in this State. The stock in this State, it is now claimed, is very considerably below what the bears on Call claim. Crop advices continue favorable, with the outlook for a large yield to the acre quite good.

Under heavy importations from the West, and free receipts from the Northern coast, oats are weak with sellers shading prices on all grades not strictly choice.

Corn is in heavy stock, with free shipments on the way from Kansas and Nebraska. The market is heavy and in buyers' favor.

Rye and buckwheat are quiet but steady.

Feedstuffs.

Dealers continue, by private circulars and otherwise, to depress hay, but are not successful in their efforts except for the poorer grades. Choice hay continues to command $13 to $14 per ton, with now and then a sale of something extra reported still higher. The crop this year, it is conceded, will not be much if any over one-half of last year's, as very few fields of grain will be cut for hay.

Ground feed is generally weak, owing to a lessened demand.

Fruits.

Oranges arrive freely, but find a ready market at steady prices. Shipments up north continue free.

Lemons and limes are steadier, but as yet the demand is only fair.

Apples are in light supply, consequently they command higher prices. With warmer weather, later on, receipts from the East will, it is thought, be quite liberal.

Choice, well-packed raisins, in attractive boxes, find ready sales, but other grades are slow even at concessions. Eastern advices report the stock of poor raisins largely in excess of trade requirements.

For dried fruits there is a good demand, but so far as can be ascertained, values are unchanged.

Live-Stock.

Beef cattle are steady, with a lighter demand reported. Mutton sheep are barely steady at the advance. Spring lambs are in good demand. Hogs are very firm with offerings lighter. In horses there is nothing new to report; the demand is slow, with prices favoring buyers. Milch cows are in fair inquiry.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 5½@6c; wethers, 6@6½c.

LAMB—Spring, 12½@15c. Yearlings, 7@8c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 3¼ to 3¾c for heavy and medium; hard dressed, 5½ to 7c per lb; light, 3 to 3¼c; dressed, 5 to 6c; soft hogs, live, 2 to 2¾c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Potatoes show another advance under continued light receipts and a good demand. Some Burbank seedlings from Oregon sold as high as 2½ cents per pound on the wharf. New potatoes come in sparingly, and sell high.

Onions are strong at a slight advance for the more choice grades. Cut onions, if sound, sell well.

Root vegetables are without essential change.

Cabbages are in good demand at full prices for filling distant orders.

Cauliflowers are firm, with a good demand ruling.

Early vegetables from the southern counties come in sparingly, and consequently fetch fancy prices.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	200,209	145,697
In port, disengaged	119,453	69,263
In port, engaged	17,311	65,544
Totals	336,973	280,504

The above gives a carrying capacity as follows: 1887, 539,156 short tons; 1886, 448,806 short tons; increase over last year, 90,350.

Several wheat vessels were taken the past week. Charters are weaker.

Hops are firmer, with more trading reported, but at no higher prices.

Turkeys are weak, but other poultry is firm at full prices.

In wool there is no business. Eastern advices report a slow market.

Tallow is weak at a slight decline.

Honey continues to hold to strong prices.

Beeswax is unchanged.

Nuts are steady.

Mustard seed is dull, as are grass-seeds. The demand for the latter is controlled by the weather.

Hams are stronger, with some sales reported at an advance on our quotations.

Beans are very strong and in quick demand at the advanced quotations.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 23, 1887

Apples, bx com..	75	@	1 25
do choice.....	1 75	@	2 25
Bananas, bunch.	2 00	@	3 25
Blackberries, ch.	—	@	—
Canteloupes, cr.	—	@	—
Cherries blk.....	—	@	—
do Royal Ann..	—	@	—
Cherry plums...	—	@	—
Crabapples.....	—	@	—
Cranberries 10	00	@	12 50
Currants chest...	—	@	—
Figs, bx	—	@	—
Grapes.....	—	@	—
do Rose Peru.	—	@	—
do Muscat....	—	@	—
do Tokays....	—	@	—
Isabel.....	—	@	—
Wine, Zinfandel	—	@	—
do Mission....	—	@	—
Limes, Mex.....11	00	@	—
do Cal. box ...	50	@	1 00
Lemons, Cal., bx	1 00	@	1 50
do Sicily, box.	2 00	@	2 50
do Australian.	—	@	—
Nectarines box.	—	@	—
Oranges, Com bx	1 50	@	2 00
do Choice.....	2 25	@	3 00
do Navels.....	2 50	@	4 50
do Panama...	—	@	—
Peaches, bx.....	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt..	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice.....	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx.....	—	@	—
Pineapples, doz.	4 00	@	5 00
Pomegranates. b	—	@	—
Prunes bx.....	—	@	—
do Egg.....	—	@	—
Quinces bx.....	—	@	—
Raspberries ch..	—	@	—
Strawberries ch.	—	@	—
Watermelons 100	—	@	—

DRIED FRUIT

Apples, sliced, lb	5	@	6½
do evaporated.	11	@	12½
do quartered..	4	@	5
Apricots.....	13	@	15
do evaporated	20	@	25
Blackberries....	9	@	11
Citron	28	@	■
Dates.....	9	@	10
Figs, pressed....	5	@	6
Figs, loose	3	@	4

Nectarines..	8	@	10
do evaporated	16	@	18
Peaches.....	8	@	10
do pared.....	18	@	20
Pears, sliced.....	5	@	6
do qrtd.....	4	@	5
do evaporated	8	@	10
Plums, pitted...	9	@	10
do unpitted...	3	@	5
Prunes.....	6	@	10
do French	10	@	13
Zante Currants.	8	@	—

RAISINS.

Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy....	1 75	@	—
Crown London Layers, fcy..	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels.....	1 35	@	—
Cal. Valencias..	1 25	@	—
do Layers	1 25	@	—
do Sultanas...	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.

Artichokes, doz.	—	@	—
Asparagus ₩ lb..	40	@	60
do cultivated.	—	@	—
Okra, dry, lb...	10	@	12½
do green box..	—	@	—
Parsnips, ctl....	1 50	@	—
Peppers, dry lb..	10	@	—
do green, lb..	22½	@	25
Pumpkins pr ton	—	@	—
Squash, Marrow fat, too.....	7 00	@	12 00
do Summer bx	—	@	—
String beans lb..	—	@	—
Tomatoes box..	1 25	@	1 50
Turnips ctl.....	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs.	1 30	@	1 55
Carrots, sk.....	35	@	—
Cauliflower, doz.	—	@	—
Eggplant, ... bx	—	@	—
Garlic, lb new..	—	@	—
Green Corn, small box...	—	@	—
do large box..	—	@	—
Green Peas, lb..	7½	@	12½
Lettuce, doz....	10	@	—
Lima Beans lb..	—	@	—
Mushrooms, lb..	25	@	40
Rhubarb lb.....	15	@	17½

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 23, 1887.

BEANS AND PEAS.			
Bayo, ctl.....	1 65	@	1 90
Butter.....	1 75	@	2 00
Pea.....	1 75	@	2 00
Red.....	1 25	@	1 50
Pink.....	1 40	@	1 55
Large White....	1 75	@	2 00
Small White....	1 75	@	2 00
Lima	2 00	@	2 45
Fld Peas, blk eye	1 00	@	1 05
do green.....	1 00	@	1 12½
do Niles.....	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California.....	4	@	4½
German.....	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb.	15	@	17½
do Fancy br'nds	19	@	21
Pickle roll.....	15	@	16½
Firkin, new.....	15	@	16
Eastern.....	—	@	—
CHEESE.			
Cheese, Cal., lb..	14	@	17½
Eastern style...	15	@	17
EGGS.			
Cal., ranch, doz..	22½	@	25
do, store.....	20	@	24
Ducks	—	@	—
Oregon	—	@	—
Eastern.....	18	@	20
Utah.....	—	@	—
FEED.			
Bran, ton.....	15 00	@	16 00
Cornmeal.....	23 00	@	24 00
Gr'd Barley ton.	24 00	@	—
Hay	9 00	@	14 00
Middlings.....	20 00	@	22 00
Oil Cake Meal.	36 50	@	38 50
Straw, bale.....	40	@	60
FLOUR.			
Extra, City Mills	4 75	@	5 25
do Co'ntry Mills	4 50	@	5 00
Superfine.....	3 50	@	4 25
GRAIN, ETC.			
Barley, feed, ctl.	97½	@	1 05
do Brewing..	1 05	@	1 15
Chevalier	1 45	@	1 60
do Coast...	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White....	1 05	@	1 10
Yellow	1 02½	@	1 10
Small Round..	1 05	@	1 15
Nebraska.....	97½	@	1 05
Oats, new.....	—	@	—
Choice feed.....	1 50	@	1 57½
do good.....	1 40	@	1 47½
do fair.....	1 30	@	1 37½
do black	1 40	@	1 55
do Oregon	1 30	@	1 60
Rye.....	1 10	@	1 25
Wheat milling, Gilt edged..	1 55	@	—
do Choice.....	1 50	@	—
do fair to good	1 47½	@	—
Shipping choice	1 50	@	—
do good.....	1 46½	@	1 47½
do fair.....	1 45	@	—
HIDES.			
Dry.....	—	@	16
Wet salted.....	8	@	9½
HONEY, ETC.			
Beeswax, lb.....	20	@	22
Honey in comb,	9	@	12
Honey in comb, fancy.....	12	@	13½
Extracted, light.	4	@	4½
do dark.	3½	@	4½
HOPS.			
Oregon.....	17½	@	22½
California.....	15	@	22½
ONIONS.			
Pickling.....	—	@	—
Silverskin.....	1 50	@	2 50
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile.	—	@	—
Almonds, hd shl.	5	@	7
Soft shell.....	15	@	19
Paper shell	18	@	20
Brazil.....	11½	@	13
Pecans.....	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank.....	1 75	@	2 25
Early Rose.....	1 30	@	1 55
Cuffey Cove.....	1 50	@	1 75
Jersey Blues...	1 50	@	2 00
Petaluma.....	—	@	—
Tomales.....	1 30	@	1 75
River reds.....	1 30	@	1 50
Humboldt.....	—	@	—
do Kidney.....	—	@	—
Chile	—	@	—
do Oregon...	1 65	@	2 00
Peerless.....	1 50	@	2 00
Salt Lake.....	—	@	—
New Potatoes...	2½	@	3½
POULTRY AND GAME.			
Hens, doz.....	6 00	@	8 00
Roosters.....	5 50	@	9 00
Broilers	5 00	@	7 00
Ducks, tame....	5 00	@	9 00
do Mallard....	3 00	@	—
do Sprig.....	1 00	@	—
Geese, pair.....	1 50	@	2 50
do Goslings ...	—	@	—
Wild Gray, doz	75	@	1 50
Turkeys, lb.....	14	@	15
do Dressed..	15	@	17½
Turkey Feathers, tail and wing..	10	@	20
Snipe, Eng., doz.	—	@	—
do Common..	—	@	—
Doves.....	75	@	85
Quail.....	1 25	@	1 75
Rabbits.....	1 00	@	—
Hare.....	1 25	@	1 75
Venison	8	@	10
PROVISIONS.			
Cal. Bacon, Heavy, lb.....	8½	@	9
Medium	8½	@	9
Light	10½	@	11½
Extra Light..	12	@	12½
Lard.....	7	@	10½
Cal. Smoked Beef	11½	@	12½
Hams, Cal.....	10	@	12½
do Eastern..	13	@	14
SEEDS.			
Alfalfa.....	9	@	10
Canary.....	3½	@	4
Clover red.....	12	@	13
White	17	@	18
Cotton	20	@	—
Flaxseed	2½	@	2½
Hemp.....	4	@	4½
Italian Rye Grass	25	@	—
Perennial.....	7	@	9
Millet, German..	4½	@	5
do Common.	7	@	10
Mustard, white..	3	@	3½
Brown.....	2 25	@	2 75
Rape.....	1	@	1½
Ky. Blue Grass..	11	@	12
2d quality.....	11	@	12
Sweet V. Grass.	75	@	—
Orchard.....	20	@	25
Red Top.....	15	@	—
Hungarian.....	8	@	10
Lawn.....	30	@	40
Mesquit.....	10	@	12
Timothy.....	5½	@	—
TALLOW			
Crude, lb.....	2	@	5
Refined.....	6	@	9
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	22	@	25
Sact'o valley....	17	@	20
Free Mountain.	17	@	20
N'hern defective	—	@	—
S Joaquin short.	14	@	18
do long.....	—	@	—
Cava'y & F'th'l.	—	@	—
Oregon Eastern.	17	@	22
do valley.....	23	@	25
Southern Coast.	13	@	17
FALL—1886			
Southern, free..	17	@	20
do defective..	12½	@	19
Northern, free..	20	@	23
do defective..	15	@	20
Middle free.....	18	@	21
do defective..	15	@	18

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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Feb. 17-23.	Portland. Rain.	Temp.	Wind.	Weather.	Red Bluff. Rain.	Temp.	Wind.	Weather.	Sacramento. Rain.	Temp.	Wind.	Weather.	S. Francisco. Rain.	Temp.	Wind.	Weather.	Los Angeles. Rain.	Temp.	Wind.	Weather.	San Diego. Rain.	Temp.	Wind.	Weather.
Thursday	.11	45	SW	Cy.	.09	49	Nw	Fr.	*.—	48	Nw	Cl.	*.—	46	N	Cl.	.00	56	E	Cl	.00	56	W	Cl.
Friday	.01	41	SW	Cy.	.00	49	N	Cl.	.00	48	Nw	Cl	.00	54	N	Cl.	.00	58	SE	Cl.	.00	59	S	Cy.
Saturday	.07	40	Nw	Cl	.00	51	N	Cl.	.00	49	Nw	Fr.	.00	50	NE	Cl	.00	57	SE	Cl.	.00	56	W	Cl.
Sunday	.24	36	SE	Cy.	.00	45	S	Cl.	.00	46	N	Fr.	.00	50	N	Cl	.00	57	SE	Cl	.00	57	Nw	Cy.
Monday	.10	36	Nw	Fr.	*.—	44	S	Cy.	.02	46	S	Cy.	.37	46	W	Cy.	.00	56	SW	Fr.	.00	57	Nw	Cl.
Tuesday	.02	36	S	LS	.13	43	SE	Cy.	.01	44	Nw	Cl.	.01	48	E	Fr.	.03	53	Nw	Cl	.07	53	W	Cl.
Wednesday	.63	36	S	Cy.	.00	46	S	Cy.	.00	49	S	Cl	.00	50	W	Cy.	.00	59	SE	Fr.	.00	57	Nw	Cy.
Total	1.18				22				.03				.38				.03				.07			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

WAKELEE'S

THE BEST IS THE CHEAPEST.



TRADE MARK.

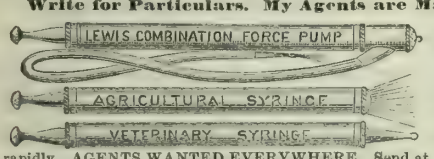
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IN 1-LB. AND 5-LB. CANS.

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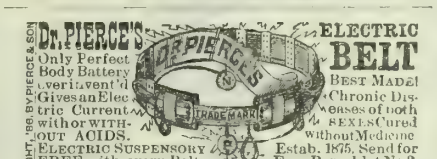
M. W. DUNHAM,
Wayne, DuPage Co., Illinois.

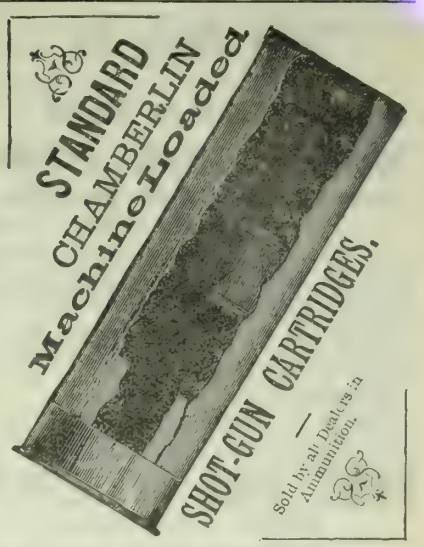
SEEDLINGS FOR SALE.

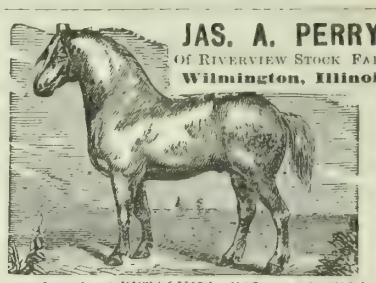
18,000 Pear Seedling, 6000 ditto Myrobolan, 3000 ditto St. Julien Plum, 5000 Apple, 5000 ditto Cherry Mazzard, $5 per M. All in prime condition, ready to be set in nursery now.

GUSTAV EISEN,
Fancher Creek Nursery, FRESNO, CAL.









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OF RIVERVIEW STOCK FARM,
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Has now for sale at PETALUMA, CAL., a splendid lot of **NORMAN HORSES,** just imported from France. *The best lot ever brought to the Coast.* Intending purchasers will save money by calling on or addressing H. WILSEY, or JAS. A. PERRY, Proprietor, Petaluma, Cal. ☞ Send for Catalogue.

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35 Fine Engravings showing the positions and actions of sick horses Gives the cause, symptoms and best treatment of diseases. Has a table giving the doses, effects and antidotes of all the principal medicines used for the horse, and a few pages on the action and uses of medicines. Rules for telling the age of a horse, with a fine engraving showing the appearance of the teeth at each year. It is printed on fine paper and has nearly 100 pages, 7½x5 inches. Price, only 25 cents, or five for $1, on receipt of which we will send by mail to any address. DEWEY & CO.,
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OVER 10,000 SETS SOLD WITHIN THE LAST YEAR.

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THIS HARNESS is just the thing for PLOWING.
FOR LOGGING it has no equal.
For the SCRAPER it is so handy—no Tugs or Whiffletrees to bother team or driver.
Sherwood's Novelty Steel Harness as a WAGON HARNESS is the "DANDY."

WE ARE RECEIVING TESTIMONIALS EVERY DAY FROM THE LARGEST FARMERS IN THE STATE.

TESTIMONIALS.

CLAYTON, CAL., January 8, 1887.

MESSRS. TRUMAN, ISHAM & HOOKER, San Francisco—GENTLEMEN: I deem it but just and proper to report upon a trial of the Bilz Vineyard Plow I bought of you, and would say it is a splendid implement and the best I ever used. I want to return the patent evener and doubletrees, however, mainly because I have no use for them, as I find the Novelty Steel Harness a hoss and no mistake. When I got it home my foreman attempted to give it a cold shake (a thing so common with hired men), but to all that I paid no attention and ordered it put on and thoroughly tested. After two days trial this doubter became enthusiastic over the "humbug," as he termed it, and now says he thinks "you can't most always sometimes tell until after you find out." The Novelty Steel Harness is the thing for plowing sure and of course is very good for other farm work. I will do anything I can to recommend these goods for you. Yours, very truly, R. C. TERRY.

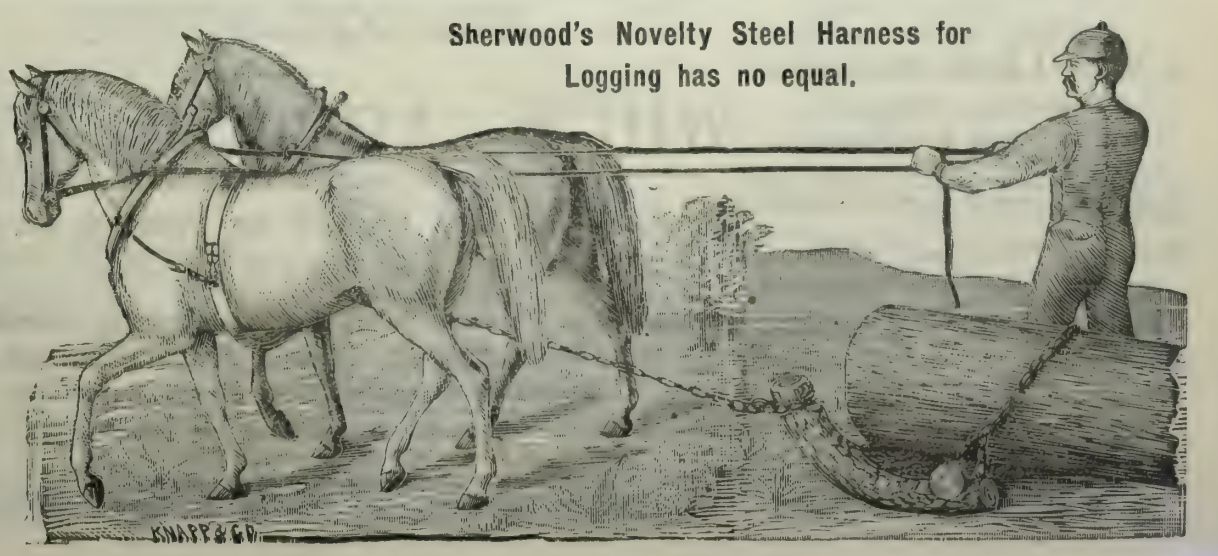
CHICO, CAL., November 27, 1886.

MESSRS. TRUMAN, ISHAM & HOOKER, San Francisco—GENTLEMEN: Yours of the 18th inst. duly received; also the Steel Harness. Permit me to say in reply, that I have used the same kind of harness for two years, that I have already six sets, using them only in orchards and vineyard. My foreman in the fruit department is much pleased with them.

Very respectfully, yours, JOHN BIDWELL.

TRUMAN, ISHAM & HOOKER,
421--427 Market Street, San Francisco, Cal.

Sherwood's Novelty Steel Harness for Logging has no equal.



Seeds, Plants, Etc.



EVERGREEN TREES, HARDY SHRUBS,

Flowering Plants, Bulbs, Seeds, Etc.

WHOLESALE AND RETAIL.

Nine large Greenhouses well stocked with desirable, healthy plants. **1000** Camellia Japonicas, Hardy Fan Palms, Daphnes, Navel Oranges, Magnolias, Araucarias, Roses, Fuchsias, Pinks, Heliotropes, Daises, Pansies, etc., in endless variety.

BLUE and RED GUMS, PINES, Etc.,

For Forest Planting, in large quantities. CYPRESS for Hedges in fine order, at bedrock prices.

☞Established in 1852. Send for Catalogue.

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Oakland, Cal.

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FROM FRANCE!

I take pleasure in calling your attention to my special price of Seedlings

NOW READY FOR SHIPMENT:

	PER 1000.
Apple Seedlings	**$6 00**
Pear Seedlings	**8 00**
Cherry (Mazzard)	**8 00**
Plum (Myrobolan)	**8 00**

☞The above Seedlings are imported from France, and are all in prime order. Also choice Bartlett Pear and Apple Trees.

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Lombard Street, between Baker and Lyon, San Francisco.

20,000 OLIVES, PICHOLINE, 2-year old, $150 to $200 per 1000.
2000 OLIVES, MISSION, 2-year old, $35 per 100.
100,000 BLACKBERRIES, LAWSON and KITTITANY and others, $10 per 1000.

Also a large stock of Monterey Cypress, Monterey Pine, Blackwood Acacias, Peppertrees and other desirable Evergreen Fruit and Shade Trees.

For the Gardens I offer Roses in the best and newest varieties, Pink, Camellias, Azaleas, Rhododendrons, Araucarias, Diosmas, Laurustun and other varieties at low prices. F. LUDEMAN.

E. J. BOWEN'S SEEDS.

ALFALFA,
ONION SETS,
GRASS,
CLOVER,
VEGETABLE AND
FLOWER SEEDS.

Large Illustrated Descriptive and Priced Seed Catalogue, containing valuable information for the Gardener, Farmer, and Family, mailed FREE to all applicants.

Address, E. J. BOWEN, Seed Merchant,
815-817 Sansome St., San Francisco.

GRAPE SEED!

FINE, FRESH AND CLEAN.

I have for sale seed of **Vitas Californica**, proof against Phylloxera, which I will send at $1 per pound for 5 pounds or more, or $1.50 per pound for less than 5 pounds.

Vitas Californica Cuttings, $8 per 1000.

☞Freight to be paid by purchasers.

C. MOTTIER,
P. O. Box 8. Middletown, Lake Co., Cal.

ORANGE TREES.

Best Florida Sorts.

—ALSO—

Mediterranean Sweet, Riverside Navel, Maltese Blood, Etc.

Sweet Seedlings in any quantity. Catalogue free.

H. L. WHEATLY,
Altamonte Nurseries,
Altamonte, Orange Co., Florida.

C. M. SILVA & SON, Nurserymen,

Newcastle, Cal., and Lincoln, Cal.

Fruit Trees, Small Fruit Plants, Etc.

Our Nurseries at Lincoln are located in new grounds, entirely isolated from all orchards or vineyards. Send for Catalogue. Address, C. M. SILVA & SON, Newcastle, Placer Co., Cal.

Trees! Trees! Trees!

Fine assortment of the leading varieties at the following reduced prices, to the trade:

2000 Apples	5 to 10c.	9500 Pears	5 to 10c.
6700 Apricots	4 to 8c.	7800 Cherries	5 to 10c.
7700 Prunes	4 to 8c.	2050 Peaches	4 to 8c.
4600 Plums	4 to 8c.	1000 Japan Plums	6 to 12c.

ALAMEDA NURSERY.
A. Cleveland, - - - Alameda, Cal.

OLIVE TREES FOR SALE.

One and Two years old. Warranted all Clean and Free from Pests. C. W. CRANE,
616 Eighteenth St., Oakland, Cal.

FRUIT TREES! Established 1868. FRUIT TREES!

THOS. MEHERIN,

Agency of CALIFORNIA NURSERY CO., Niles, Alameda Co., Cal.

We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grape Vines, Olives, Small Fruits, Etc.

Ever offered on the Pacific coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

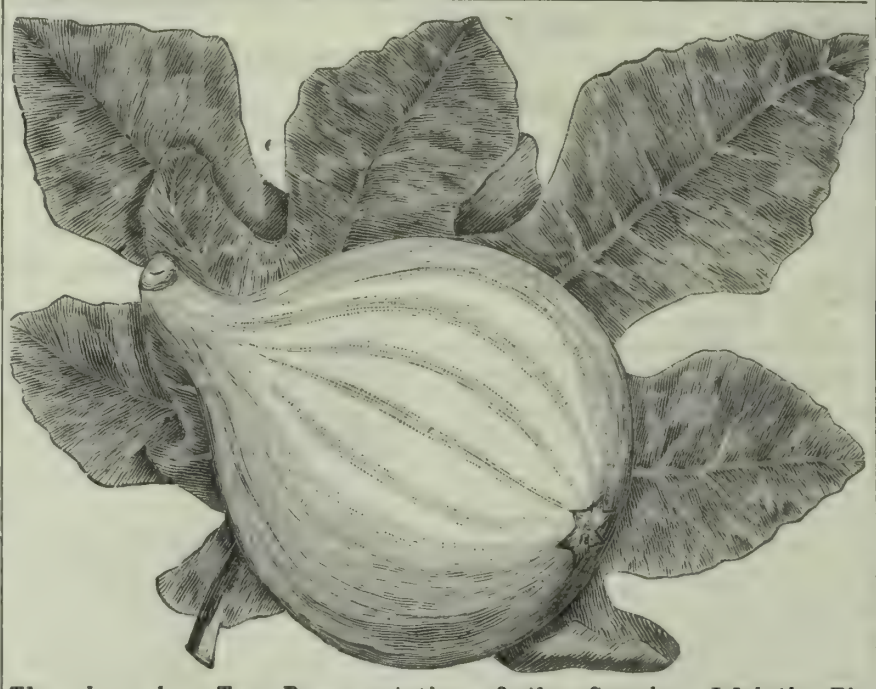
WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower, and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

at LOWEST RATES. New Catalogue for 1887 mailed on application.

P. O. Box 2059. THOS. MEHERIN, 516 Battery Street, SAN FRANCISCO, CAL.



The above is a True Representation of the Genuine Adriatic Fig
GROWN BY US.

☞We also offer a full assortment of all kinds of Fruit Trees and Ornamental Plants, Olives, Roses, guaranteed genuine and free from all disease and pests.

GUSTAV EISEN, Manager FANCHER CREEK NURSERY, Fresno, Cal.

33d YEAR. # STOCKTON NURSERY. 33d YEAR.

WHITE ADRIATIC,
SAN PEDRO, SMYRNA, and ENDRICH FIGS.

Præparturiens, Macrocarpa, Mayette, and Chaberte Walnuts, Chestnuts, Persimmons, Mulberries, Olives, Oranges, Lemons, Pears, Apples, Peaches, Apricots, Cherries, etc. Plums and Prunes on Myrobolan Stock, Grapevines, Ornamental Trees, Shrubs, Palms, Magnolias, Clematis, New Roses and Hothouse Plants.

TRY THE PERSIAN MULBERRY.

NO SCALE.—I wish particularly to call the attention of Fruit-growers to this fact. I have repeatedly had my nursery examined by experts, and upon no occasion have they found any scale or any indication of scale. The nursery is isolated from orchards, both old and new, and as I take every precaution in importing new varieties to get only clean stock, I feel perfectly warranted in guaranteeing every tree sold by me free from scale and other pests that are proving so disastrous to the fruit interests of the State. SEND FOR CATALOGUE.

E. C. CLOWES, Proprietor, Successor to W. B. WEST.
STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

WHITE SMYRNA FIG (Bulletin Smyrna), one, two and three years old.
WASHINGTON NAVEL ORANGE. Write for prices.

HEADQUARTERS
—FOR—
WHITE ADRIATIC FIGS.

THE LARGEST STOCK OF TREES IN THE STATE.

The Only Fig that Should be Planted for Drying.

ALSO A LARGE STOCK OF OTHER TREES:

Apples, Pears, Peaches, Plums, Prunes, Apricots, Cherries, Nectarines, Olives, Oranges, Lemons, Shade Trees and Ornamental Shrubs, Greenhouse Plants, Roses, Etc.

A Complete Assortment of Rooted Grapes and Cuttings.

ALL TREES WARRANTED FREE FROM SCALE OR APHIS.

☞Catalogue Free.

W. M. WILLIAMS, Fresno, Cal.

Præparturiens Headquarters!



Second Generation Præparturiens Walnut!

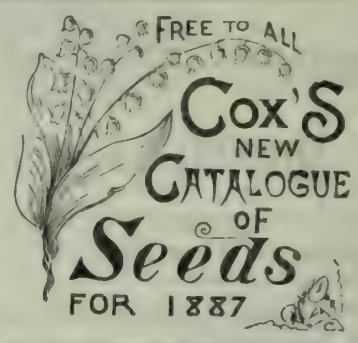
The only kind that can be guaranteed **TRUE**, or of having retained the surprising characteristics of **PRECOCITY, FERTILITY** and **HARDNESS** of the **"ORIGINAL PRÆPARTURIENS."**

Mountain-grown Trees, **Heavily Rooted**, all sizes, and from 1 to 4 years old, grown from nuts borne on the the "Original Præparturiens."

☞This variety being so much later in budding out than the California Common English Walnut, may be ordered till the middle of April. Send for Illustrated Catalogue with chapter on Nut-Bearing Trees.

BARREN HILL NURSERY,
Nevada City, Cal.

FELIX GILLET, Proprietor (introducer of the Præparturiens Walnut into California, 1871).



☞Our New Catalogue for 1887, mailed free on application, contains description and price of Vegetable, Flower, Grass, Clover, Tree and Field Seeds; Australian Tree and Shrub Seeds; native California Tree and Flower Seeds, Fruit Trees, and many new novelties introduced in Europe and the United States.

THOS. A. COX & CO.,
411, 413, 415 Sansome St., San Francisco.

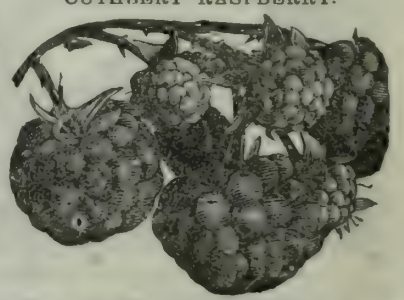
CYPRESS AND GUM TREES.

All fresh, hardy, stocky trees. Monterey Cypress, 8 to 12 inches high, transplanted in boxes of 70 trees each, at $2 per box or $25 per 1000; 12 to 15 inches, of 50 trees per box, at $4 per 100 or $35 per 1000. Seedlings, 3 to 4 inches, at $5 per 1000. Blue Gums, 8 to 12 inches, of 100 per box, at $1.50 per 100 or $14 per 1000; 12 to 18, of 70 per box, at $1.50, or $20 per 1000; 18 to 24 inches, 50 per box, at $1.75, or $30 per 1000. Large, straight sacked or bulked Gums or Pines shipped only after the roots have sprouted through sacking. Blue, 4 to 6 feet, at $15 per 100; 6 to 8 feet at $20 per 100; 8 to 10 at $25 per 100. Red or Round Leafed Gums, 4 to 6 feet, at $20 per 100; 6 to 8 feet at $25 per 100 Pines, 2 to 3 feet, at $20 per 100. Acacias, 2 to 3 feet, of 30 trees per box, or 3 to 4 feet of 20 trees per box, at $2 per box. Also fresh-gathered, strong-growing seeds of the Monterey or Italian Cypress, Blue, Red or Iron Bark Gum or Acacia in variety at lowest rates. Postage Stamps taken for orders not exceeding $2. No other than the best of stock will be sent from this nursery, as we desire to make a friend of every cash customer.

GEO. R. BAILEY, Park Nursery,
Berkeley, Cal.

Fine Small Fruits a Specialty

CUTHBERT RASPBERRY.



BEST MARKET BERRY KNOWN! Large Firm and Luscious, stands travel finely, bears immensely, and has two crops a year; 75 cents per dozen; $3 per 100. Also Strawberries, Blackberries, Gooseberries, Currants, etc., of finest imported varieties. Prices on application.

L. U. McCANN, Santa Cruz, Cal.

PEPPER'S NURSERIES.

ESTABLISHED IN 1858.

Apricot, Plum, Prune and Peach on Myrobolan Plum stocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

SEEDS SENT FREE.

Warranted. Fresh, reliable, Tested seeds cheap. Illustrated catalogue Sent free. Prices lowest. Packets 3 cts. Gardeners say our seeds are the best. Thousands of choice packets given away. Special wholesale price list to Market gardeners.

ALNEER BROS.,
Rockford, Ill.

J. N. KNOWLES, Manager. EDWIN L. GRIFFITH, Secretary.

ARCTIC OIL WORKS,

Manufacturers of

INSECTICIDE!

FOR ERADICATING AND DESTROYING ALL PESTS THAT INFEST FRUIT TREES AND PLANTS, SUCH AS

SCALE BUG, HARVEST FLIES, TREE HOPPERS, PLANT LICE, Etc.

It has been fully tested by the Agricultural Department of the State University, and pronounced a success, the endorsement of which we append. It is put up in convenient forms for use both in liquid and paste state.

For Sale in Barrels and 2 and 5-pound Cans in paste form, and in Barrels and 5-gallon Cans in liquid form.

Copy of Letter Received from the University of California, College of Agriculture, Berkeley, dated December 4, 1886.

J. N. KNOWLES, Esq., Manager Arctic Oil Works, San Francisco—DEAR SIR: We have lately tested the Insecticide preparation of Whale-Oil Soap sent by you to us, and have found it to be very effectual against the Scale infesting Orange and Bay Trees here; also against the Thrips. From our previous experience with a similar composition, I think it will be found fully effectual against any small Insect Pests not specially protected like some of the armored Scales, and against which any Wash short of strong lye cannot be used. Respectfully,

E. W. HILGARD, Professor of State University.

OFFICE, 28 California St., San Francisco, Cal.

B. V. CUTTINGS.

Bordeaux Varieties.

I OFFER FOR SALE, AT $10 PER M., 200,000 CUTTINGS of the following renowned varieties, tule-packed, F. O. B. at depot: Cabernet Sauvignon, Cabernet-Franc, Merlot, Verdot, Malbec, Tinturier, Portal-Ploussard, Mondense, Petite Sirrah and Grosse Blue. Also from $2.50 to $5.00 per M. all other well-known wine and table grape varieties, too numerous to mention. The above Grape Cuttings are from our vineyard, and we guarantee them true to name, healthy, in good condition, and offered at lowest market price. Ten (10%) per cent invariably in advance on small orders. Information furnished, if desired. Will not guarantee cuttings procured for accommodation from other vineyards, but will always select them from responsible parties and in healthy locations. The Burgundy and Bordeaux varieties are very scarce, and parties desiring to plant this winter would do well to secure their cuttings at once, and save money and disappointment.

J. B. J. PORTAL,
Box 627. San Jose, Santa Clara Co., Cal.

GAREY'S NURSERIES,

Successors to the O. W. Childs Nurseries,

LOS ANGELES, CAL.

FOR SALE, SEASON 1886-87,

The largest, best grown, best rooted, cleanest, healthiest stock of Fruit Trees in Southern California, all true to label, consisting, as specialties, of Olive, Orange, Lemon, Lime and Bartlett Pear. Price List free. Address

THOS. A. GAREY, Agent,
P. O. Box 452. Los Angeles, Cal.

SEED! SEED!

TWO CARGOES OF TAHITI ORANGES due about the middle of April. Send your orders for Seed in time, as we have a large quantity engaged already. SEND FOR PRICE LIST.

L. G. SRESOVICH & CO.,

413, 415 & 417 WASHINGTON STREET,
SAN FRANCISCO, CAL.

GUAVAS.

Large stock; fine plants; for the season of 1886-87. Address

T. J. SWAYNE, National City or San Diego.

GREGORY'S ALL SEASONS CABBAGE AND CATALOGUE

My vegetable and flower seed catalogue will be sent *free* to all who write for it. It is full of fine engravings, with over forty of the best of all the new vegetables. It contains among its vast variety a larger number of home grown seeds, I have reason to believe, than can be found in any other catalogue published in this country. Farmers who make money from valuable new vegetables are those who, being the first to raise them, get a monopoly of their markets. Such will plant largely of this king of all the early drumheads, the All-Seasons Cabbage; for, my friends, *it has come to stay!* JAMES J. H. GREGORY, Marblehead, Mass.

Over 6,000,000 PEOPLE USE

FERRY'S SEEDS



Their Seeds are *popular* because they are *good.*

D. M. FERRY & CO. are admitted to be the LARGEST SEEDSMEN *in the world.*

D. M. FERRY & CO'S Illustrated, Descriptive & Priced SEED ANNUAL For 1887 will be mailed FREE to all applicants, and to last season's customers without ordering it. *Invaluable* to all. *Every person using Garden, Field or Flower* SEEDS *should send for it.* Address

D. M. FERRY & CO.
Detroit, Mich.

JAPANESE TREE IMPORTING CO.

SEEDLESS OONSHIU ORANGE TREES.

(See RURAL PRESS of Feb. 12, page 125.) Persimmons, Dwarfed Plums, Maples, Tea Plants, Bi Na Cumquots and other Japanese Plants for sale.

Send for Circular. 120 Sutter St, S. F.

100,000 FRUIT TREES.

SPECIAL OFFER!

ROYAL BLENHEIM and **HEMSKIRKE APRICOTS**, on Peach and Apricot, 3 years, transplanted. Good roots and heads.

FRENCH PRUNES (Petite d'Agen), on Peach, Apricot and Almond, 1, 2 and 3 years all good stock.

BARTLETT PEARS, 1 and 2 years; good stock.

JAPAN (Kelsey) **PLUMS**, on Almond, 1 year.

EARLY CRAWFORD PEACHES, on Almond, 1 year.

HUNGARIAN PRUNE, WASHINGTON and **YELLOW EGG PLUMS**, on Apricot, 1 year.

YELLOW NEWTON PIPPIN APPLES, 1 year.

☞ The above are clean and thrifty, and will be sold at low rates if applied for soon.

TRUMBULL & BEEBE, Seedsmen,

419 and 421 Sansome Street, - - San Francisco, California.

SHINN'S NURSERIES

NILES, CAL.

We offer to the public our usual excellent and well-assorted stock of

FRUIT, NUT & SHADE TREES,

SHRUBS AND PLANTS.

ALL OUR TREES ARE GUARANTEED FREE FROM SCALE, and are grown without irrigation on new land distant from old orchards.

☞ We would call especial attention to our "Bulletin" Smyrna Fig, imported by us direct from the Levant and now proved, in numerous instances of fruiting, to be the

TRUE FIG OF COMMERCE.

Send for Catalogue.

SHINN & CO., Niles, Alameda Co., Cal.

EVERYTHING THAT IS NEW IN SEEDS



RARE IN PLANTS

is offered and described in our **CATALOGUE No. 446**, which this year we send out in an illuminated cover. The Catalogue is replete with new engravings of the choicest flowers and vegetables, many of which can only be obtained from us; and contains, besides, 2 beautiful colored plates, and very full instructions on all garden work. Altogether it is the best ever offered by us, and, we believe, is the most complete publication of its kind ever issued. Mailed on receipt of 10 cents (in stamps), which may be deducted from first order. Please be sure to order Catalogue by the number.

PETER HENDERSON & CO. 35 & 37 Cortlandt St., NEW YORK.

TREES FRUIT and ORNAMENTAL.

MAGNOLIAS,
PALMS, ROSES, CLEMATIS, Etc.

10 MEDALS and 39 PREMIUMS

AWARDED AT THE

WORLD'S EXPOSITION AT NEW ORLEANS.

DESCRIPTIVE CATALOGUES,

Containing many New and Rare Varieties, will be sent:

No. I.—Fruits, Grapevines and Olives..... 4 Cents
No. II.—Ornamental Trees, Evergreens and Plants..... 4 Cents

JOHN ROCK.
San Jose, California.

SEEDS! SEEDS! SEEDS!

For 1886 and 1887.

FRESH STOCK OF

GARDEN AND FIELD SEEDS.

All of this year's growth, for sale at the GEO. F. SYLVESTER SEED WAREHOUSE, Nos. 315 and 317 WASHINGTON STREET, SAN FRANCISCO. SAMUEL BRECK, Proprietor.

GILL'S NURSERIES, Oakland, Cal.

WE NOW OFFER FOR SALE a large and complete stock of

FRUIT, SHADE and ORNAMENTAL TREES, SHRUBS and GREENHOUSE PLANTS,

Including Azaleas, specimen Araucarias Imbricata, Camellias and Rhododendrons, Roses and Pinks. Our Specialties, for which this place has long been noted: Seedlings; Cypress and Laurustinus, all sizes, for hedging; 50,000 Blue and Red Gums transplanted in boxes. We invite inspection of our stock. Send for Descriptive Catalogue. Address, E. GILL, 28th St., bet. Adeline and Market, near San Pablo Avenue, OAKLAND, CAL. ☞ San Pablo Avenue Cable Cars pass close to the Nurseries.

ORANGE TREES.

We are the sole agents (in Northern California) of Messrs. Twogood, Edwards & Cutter, of Riverside, for the sale of their Orange Trees, budded on the popular Florida Sour Orange Stock, and are prepared to book orders for carload lots or less. Now is the time to secure a good Orange grove cheap. Send at once for circular and price list. All orders must be booked prior to February 20th, to insure getting trees. Don't miss this opportunity.

We are also prepared to furnish a full line of Nursery Stock; also Seeds of all kinds, both wholesale and retail. The very best Stock at bedrock prices. Send for Seed and Tree Catalogue and Special Prices for large lots. Address

W. R. STRONG & CO.,

NURSERYMEN AND SEEDSMEN, SACRAMENTO, CAL.

PRICES GREATLY REDUCED FOR SEASON OF 1887.

Adriance, Platt & Co.'s "BUCKEYE" MOWERS, the only Genuine "BUCKEYES."



Adriance "Buckeye" Mower at Work.

The preference which has been shown for the harvesting machinery of ADRIANCE, PLATT & CO. by so many thousands of farmers in all parts of the world has nowhere been more decided than on the PACIFIC COAST, where their "Buckeye" Mowers and Reapers have so many years been recognized as STANDARDS OF EXCELLENCE IN PRINCIPLE, MECHANISM AND WORKMANSHIP.

The above firm has been manufacturing the original "BUCKEYE" machines for more than 30 years, during which time we have been their agents in California, and there have been in the meantime about 24,000 of their machines sold here, all having given the best of satisfaction. We could cite no better evidence of their superiority and popularity than the above statement. Don't experiment by buying unknown and inferior machines.

THE TAYLOR SULKY RAKE.

THIS MONARCH OF BOTH

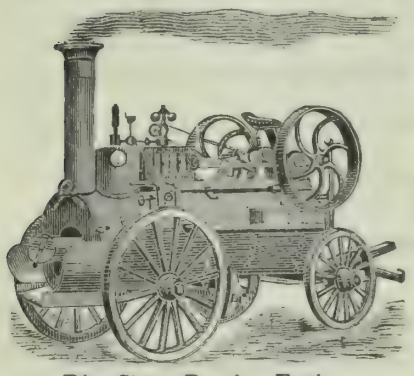


HAND AND SELF-DUMPING Rakes

Has been much improved, and is the best Rake in the market, working directly upon the axle by means of a simple clutch in the wheel, does away with that breaking and wearing out of small pawls and ratchets, and winding up of grass in cogs and other gear on outside of hub. Anybody who can drive a horse can operate it successfully.

BUY THE "TAYLOR."

Rice Straw-Burning Engine.



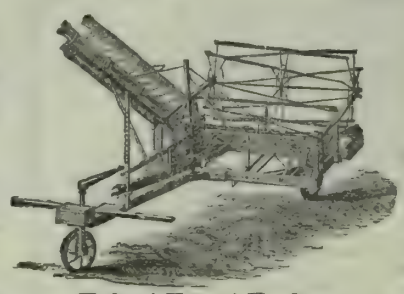
Rice Straw-Burning Engine.

THIS IS THE ONLY ENGINE WHICH HAS EVER BEEN THOROUGHLY SUCCESSFUL IN USING STRAW FOR FUEL.

The Rice Engine is the only reliable Straw-Burner manufactured. For perfect work and durability they have no equal. No engines made can compete with them. We have spared no expense to make them what they are—

The Only Reliable Straw-Burners in the World!

We do not cheapen them in their construction and thereby imperil human life, which has been so freely destroyed by boiler explosions in this State.



Hodges' Haines' Headers.

HODGES' HAINES' HEADERS

ARE the ONLY GENUINE HAINES' HEADERS

They are the best improved and most practicable Headers in the market. Many important improvements have been added, which must be examined that their great value may be appreciated.

All of our Hodges' Single-Gear Headers have Self-Adjustable Reels, Patent Beveled Finger Bars, Extra High Patent Iron Wheels, Center Pitmans, Patent Tongue Irons, Improved Belt Tighteners, Balance Springs on Levers, Loose Gear Spur Wheels, Wood Frame Steering Post, and Grooved Steering Wheels. The above-named improvements can be obtained only on Headers made by A. J. HODGES & CO., and sold only by us. We ask you to compare them with other kinds in the market before purchasing.

DO NOT FAIL TO SEE THEM BEFORE YOU BUY.

Send for our New Catalogue for 1887.

HAWLEY BROTHERS HARDWARE CO.

San Francisco, Cal.

BEST & DRIVER'S IMPROVED COMBINED HARVESTER for 1887

Manufactured at the

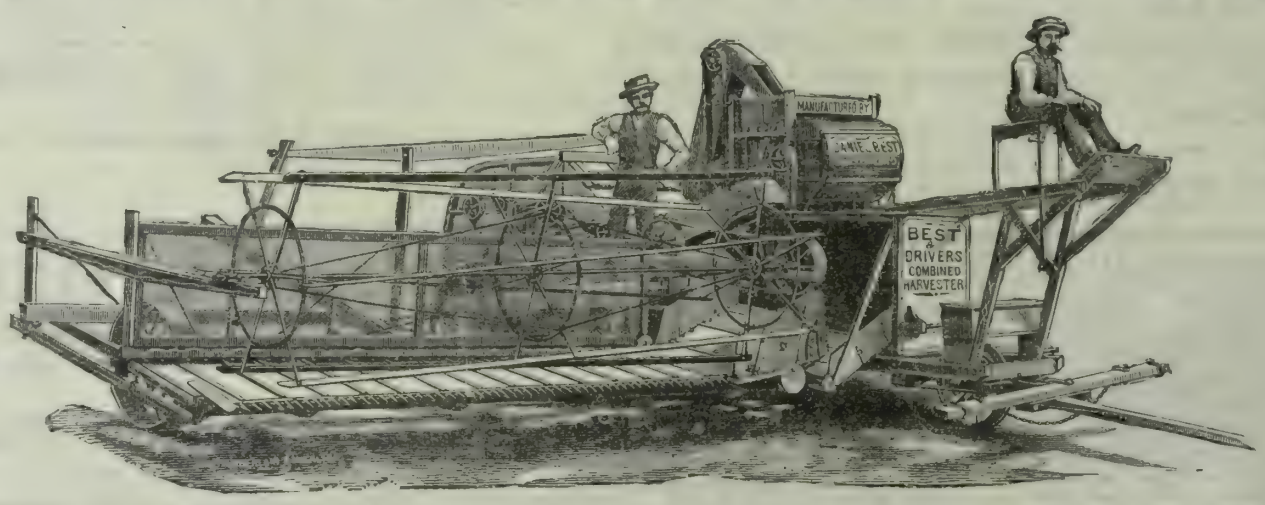
DANIEL BEST AGRICULTURAL WORKS, San Leandro, Cal.

STANDARD SIZE

—IS—

14 Feet.

Will make any size that is ordered.



Belt

—AND—

Geared.

The BEST & DRIVER IMPROVED Combined Harvester, without doubt, will be the Leading Machine this season, is the verdict of all those who have inspected it.

IT H S VALUABLE IMPROVEMENTS THAT ARE NOT FOUND IN ANY OTHER COMBINED HARVESTER MANUFACTURED. SPACE WILL NOT ALLOW US TO ENUMERATE HERE; AN INSPECTION OF THE MACHINE WILL CONVINCE YOU.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvestin expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** ttached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, so that they will not fall to pieces under a hot sun.

Write for Circulars. For further information, prices, etc., address

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly cl an the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

DANIEL BEST, San Leandro, Alameda Co., Cal.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 10.] SAN FRANCISCO, SATURDAY, MARCH 5, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

The Abolition of Tolls.

All persons doing business across the wharves of San Francisco are interested in the bill before the Legislature, abolishing the collection of tolls on wharves belonging to the State. The bill was drafted by the Joint Committee of the San Francisco Chamber of Commerce and Produce Exchange. Wharfage we understand to be a charge on goods for being landed or loaded from a wharf; dockage is a charge against vessels for landing at a wharf or for other accommodations in harbor; tolls is a charge on goods, in transitu between the city and the other towns and cities of the State, that pass over the wharf. It is the last charge this bill contemplates abolishing.

The Harbor Commissioners in their last report say:

The present board, with the law as it found it on coming into office, has been compelled to collect the revenue from merchandise by the system of tolls and toll collectors, or leave it uncollected. But it does not hesitate to characterize the system as a most objectionable one. That it should be condemned on account of the expense that is inseparable from it, does not admit of question. But the expense of this mode of collecting revenue is not the only objection to which it is obnoxious. If collectors should be disposed to act dishonestly, no effective checks can be employed to prevent their embezzling the public funds; nor, if they should be guilty of peculations, would it be easy to detect them. And even if we could secure satisfactory guarantees that all collectors would be scrupulously honest in the discharge of their official duties, still they would be liable to make grave mistakes, through want of judgment in estimating quantities, whether by weight or measure, which would cause the law for the collection of revenue to operate unequally and consequently unjustly.

The commissioners have undoubtedly here put their finger on the real cause why this burden has not been removed. The water front of this city is a favorite asylum for superannuated political hacks and fuglemen, and the chance for stealing is more than their virtue can resist. We speak according to books, as the following statement taken from the commisioners' report two years ago will show:

Collected by tolls	$343,108 72
Deduct amount paid by R. R. Co.	79,070 70
Amount collected by collectors	$264,038 02
The amount of salary paid collectors	$70,996 24

This shows the cost of collecting the tolls by collectors was 26.8 per cent of the amount collected.

About 30 men are employed in this service. Surely, to state the matter as mildly as possible, no system could be more wasteful than this. Besides this extraordinary wastefulness, the imposition of these tolls is most vexatious, because it is felt by every one who crosses the water front of this city. And then, what a pitiful spectacle, for a great State to place an army of agents on its wharves collecting five-cent pieces from all who are engaged in handling the commerce of this port. When a ship pays dockage and the merchant to whom a cargo is assigned pays wharfage, there the harbor taxation should cease. The temper of this Legislature does not encourage any hope of the abolition of this system of tolls, but the matter should be kept before the people till sufficient public sentiment is made to compel our legislators to perform their civic duties.

A Horticultural Association has been organized at Anderson to encourage the growth of fruits and vines and invite immigration.

Orange Monument.

Our engraving shows one of the decorations at the San Jose Fair, which combined use and beauty in a charming manner. It is an orange monument of surpassing beauty which stood in the southeast corner of the building during the fair. It consisted of a framework 10 feet high, entirely covered with branches having oranges upon them. This charming exhibit was made by Mr. Geo. E. Pinder, of Los Gatos. The monument contained over 1900 oranges, and was surmounted by a bearing lime tree from the nursery of N. E. Beckwith, at Los Gatos. This was, however, removed before our sketch was prepared. Mr. and Mrs. T. O. Smith, G. W. Tarleton, Mrs. M. G. Buzzo and Mrs. A. Loomis were the builders.



ORANGE MONUMENT—EXHIBIT OF G. E. PINDER AT SAN JOSE FAIR.

State Horticultural Society.—There was an interesting meeting on Friday, February 26th, with papers on the prune and the cork oak, which we will give in our next issue.

The Southern Citrus Fair.—It seems that the proposed citrus fair at Riverside (for which a date was first set Feb. 22d and then March 8th) has been finally abandoned. The ostensible reason is that the lack of interest on part of some growers did not warrant the committee in proceeding with the venture. It is now announced that Colton will take up the enterprise which Riverside abandoned and endeavor to carry it to a creditable issue. We trust it may succeed and that it will be carried forward with the aid and co-operation of all adjacent regions. Colton has become a point of great importance, and its growth has been very satisfactory. With the help of its thriving and progressive neighbors, it has the material to make a notable exhibition which will be of value to the rich region round about.

Citrus Fruit Culture.

Possibly some readers may get an idea, from the large space we have given to the citrus fairs held at Sacramento and San Jose, that we are advocating citrus fruit-growing as a fit industry for the vast area of country tributary to these centers. Nothing could be farther from our intention. First of all the fairs have shown that most excellent specimens of citrus fruits can be grown in certain localities within the districts named, but to conclude that therefore these fruits can be grown successfully everywhere, is as great a mistake as to claim that any other class of fruits can be successfully grown everywhere over a large extent of our country. California has a great variety of adaptations, but success depends upon getting the right thing in the right place, and this should always be borne in mind when talking of the growth of citrus fruits, as well as of all agricultural crops.

We understand the reason why so great prominence has been given to the showing of citrus fruits at our winter fairs in the upper part of the State, has not been with an idea of advocating their growth generally as a business enterprise, although there is reason to place it upon that basis in certain localities. Citrus fruits have come to be considered the world over as exponents of mild winter climates; they have been accepted, as it were, as the measure of winter mildness; as more expressive to the common mind than the records of the thermometer. The upper part of the State placed its claim to genial winters upon the accepted ground and has demonstrated by its show of semi-tropical productions that it is not as cold as some have been inclined to think. One of the most important local results has been the awakening of our people to the possibilities of their own districts. People know better now what excellent things their own neighbors are doing, and the consequence has been an increased loyalty to California at home, and a far better understanding of her resources abroad. The conclusion from this demonstration is not that Central California should be covered with citrus fruit trees. No one who knows the facts would claim that they would all succeed; nor would it be a good business enterprise to plant them, even if the trees would all do well. There are other growths which are profitable and to which certain parts of the country are better adapted. The lessons of the citrus fairs are not that these should be neglected. The fairs have not changed in the slightest the general proposition which is true in California, that growths should be selected according to the special adaptations of the localities in soil, exposure, water supply, etc. There are also matters of cost of transportation and other factors of success in any enterprise which must always be considered.

We suppose our friends generally understand that we have no interest or disposition to serve narrow sectional ends in the showing which we make of successes in any branch of agriculture. We are for the whole State—for the very best which any part can do, whatever it may be. If at one time the deeds of one section seem prominent, it is because events transpiring there are, at the moment, such as to claim especial attention from the journalist, and that at another time the center of interest will change to other regions where the local outcroppings of progress seem more marked.

ARBORICULTURE.

The English Walnut in Central and Northern California and Oregon.

EDITORS PRESS:—Many have been the inquiries received by me about the English walnut and its chances of success in Central and Northern California and Oregon; but as there seems to be no end to such inquiries, and walnut culture may be regarded as a question of paramount interest to a large portion of our people, you will allow me to discuss it once more in your columns.

Here are some samples of the questions put to me regarding the English walnut:

Will it do well 10 miles from the sea, and at 200 feet elevation (Santa Barbara)? Will it grow without irrigation where prunes and olives do? Will the walnut do well in rocky soil? At what age does it go into bearing? Is it preferable to plant one-year-old trees than older ones? Would you advise the planting of walnuts where the mercury goes down to 10 degrees above zero? Why does not the English walnut bear in our State (Oregon)? Will the walnut bear 75 miles inland as well as nearer to the sea? Does the walnut require rich ground to bear well? What is the soil best adapted to the walnut? Will it stand the heat of our valleys? Will it stand the cold of our mountains? What is the reason that 20 and 30-year-old walnuts do not bear? What is the profit in growing walnuts? What varieties would you recommend? Is it safe to remove large trees? Can the English walnut be grafted on the black walnut? What is the commercial value of the Præparturiens? Is the walnut free of insect pests? and a hundred other such questions.

I will try to condense my remarks in such a form as to answer those questions as clearly as possible.

The whole trouble about the English walnut in California, Oregon—in fact, all over the Pacific Coast north of Tulare—and the asking of so many questions on its hardiness, productiveness and the like, is due mainly to the wretched kind known on this coast under the name of "Los Angeles walnut" or "California common English walnut," and, unfortunately, the only kind propagated on the Pacific Coast for a great many years, and whose propagating should be altogether abandoned by nurserymen. No matter how well that kind might do in the southern end of the State—and it is an open question whether other kinds wouldn't do better—it is a fact that in Central and Northern California and Oregon it does badly; and why? Because it is a kind more adapted to a warm climate, exempt from late frosts in the spring and early frosts in the fall; and it is a fact that this Los Angeles variety is too early in budding out and too late in forming the terminal bud—that is, in maturing its wood. In other words, it is a too delicate kind for four-fifths of the whole area of this State, Oregon and the territory north and east of us, where only "hardy" kinds should be planted. But worse still—and I do not know to what to attribute that serious defect—north of Tulare the Los Angeles walnut is rendered completely barren by imperfect blooming, the staminate blossoms or catkins being out while the pistillate or female blossoms, or nuts, are yet in a dormant state, and the catkins being all gone and dropped when the nuts are out, the latter, not being fertilized, drop off in their turn, after having reached the size of a large pea.

As spring is getting close at hand, I would like every one having such large, barren walnut trees to watch closely their trees at blooming time, and see for themselves how correct I am in my explanation of the trouble with that kind of walnut and its barrenness. I have ascertained that this Los Angeles walnut blooms imperfectly in many counties of Central and Northern California and Oregon. Here in this county, Mr. E. M. Preston, president of the Citizens' bank, had a 30-year-old walnut cut down a year or two ago on account of its being barren; so did Mr. I. Ott, who cut down two 20 year-old trees that never bore any nuts. Another 30-year-old Los Angeles walnut on Mr. Ben Locklin's place has never borne but a few nuts. Dr. R. M. Hunt had three such large barren walnuts in his fine grounds, but after witnessing the wonderful transformation of Mr. Charonnat's trees at Canada Hill, near this town, he had his trees grafted into the California Late Præparturiens, and they stand now completely transformed from a barren to a most prolific kind. Messrs. Geo. E. Turner, K. Casper and others from this place are having barren English walnuts and black walnuts grafted also into Præparturiens. In Haywards, before his starting to New Orleans, Mr. Jessup, I was told, had a fine avenue of such barren trees cut down. Mr. W. B. West, of Stockton, speaking of the hardy French kinds, said: "I have never lost an inch of wood from any frost that occurred since they were planted, while the Los Angeles trees, near them, have been cut to the ground many times." Mr. C. M. Silva, of Newcastle, Placer county, complained to me several years ago of having such unproductive trees upon his place.

While at San Jose several years ago, I saw at Mr. D. C. Vestal's, near that place, two magnificent Chili walnut trees from which Mr. Vestal was having bushels of a very pretty soft-shell nut. Near by was one of those Los Angeles walnuts, and Mr. Vestal made the remark that that tree frequently had its wood cut back by frost both in the spring and fall; not so his two great "Chilians," which were never injured by frost and always matured their wood well. Now, had Mr. Vestal had only that Los Angeles walnut on his place, he might have come to the conclusion that the climate and soil of the Santa Clara valley were not adapted to the walnut; while it was, on the contrary, that *kind* of walnut that was not adapted to the climate of that beautiful portion of our State, the Santa Clara valley.

The same defect in that "Los Angeles" kind is reported more or less from all parts of the State, at least north of Tulare, also from Oregon; and people, not knowing to what to attribute the unproductiveness of this kind of walnut, which, until 8 or 10 years ago had been absolutely the only one of that family propagated throughout these two States, had come to the conclusion that the climate of Central and Northern California was not adapted to the English walnut, and that that of Oregon was too "wet" for the well-bearing of that tree. And now I rise and say it is not so! No part of California is better adapted to walnut culture than that immense stretch of territory from the San Joaquin valley and Santa Cruz's fair shores to the northern end of the State, way up to old Shasta, *provided* the *right* kinds are planted—that is, those "hardy French kinds," as Mr. West calls those fine and fertile varieties introduced from France into this State those late years.

Mr. Charonnat's Walnuts.

But to show the readers of the PRESS who reside in Central and Northern California and Oregon how well adapted to walnut culture is that immense belt of territory, I will give them the history of Mr. L. Charonnat's big trees, which stand on the side of a hill, of a rocky, red clay and granite formation, up in the snow belt of the Sierras, at 2800 feet altitude, which trees bore such a tremendous crop, proportionally to their size, the very year (1886) that the walnut crop of Southern California was a partial failure.

In the spring of 1860 Mr. Charonnat sent to Sacramento for an English walnut and pecan; the trees when planted were four years old. The pecan turned out to be a California black walnut, and, in 1872, Mr. Charonnat grafted a limb (one-half of the tree) into the English or Los Angeles walnut, taking the graft from his other tree, in the expectation that the catkins of the black walnut, later in blooming out, would fertilize the nuts of the Los Angeles walnut, whose catkins, Mr. Charonnat had already remarked, always came out and dropped fully two weeks before the nuts or female blossoms were out. This plan did not work, the Los Angeles kind being so early in blooming out, and the black walnut so late, that the catkins of the black walnut and the nuts of the Los Angeles walnut never were out at the same time, and the transformed half of the black walnut remained as barren as the mother tree, the black walnut half of the tree keeping on to bear good crops.

The other tree, the Los Angeles walnut, up to 1880, after having reached the ripe old age of 24 years, had borne during all that time but 17 nuts, 11 of them on one favorable year. Some years, says Mr. Charonnat, that tree was cut back successively three times in the spring. It was about that time that I proposed to Mr. Charonnat to graft his two trees into my California late Præparturiens, a very hardy and prolific kind. The Los Angeles walnut top was cut back down to 12 feet from the ground, also the other limb or half of the black walnut, letting stand that half of the tree grafted into the Los Angeles walnut, just for an experiment; and both trees were *annular-budded* in the fall of 1880, four buds succeeding on the Los Angeles walnut, and two on the black walnut. In 1884, the first time that the new tops commenced to bear, the Los Angeles walnut (then completely transformed into a Præparturiens) yielded 637 nuts; twice as many in 1885; and 6300 in 1886, the long limbs bending down under the heavy burden of the nuts. In the fall of that year, that tree measured 66 inches round, near the ground; 57 inches, six feet from the ground. It was 35 feet in hight and had a top 30 feet in width, showing already bunches of two, three, four, and even six nuts. The top as it now stands looks very small in proportion to the trunk, and will probably be fully developed in two or three years.

The Præparturiens part of the black walnut was relatively as much loaded; but the most singular was that for the first time the Los Angeles part of the tree bore, and bore pretty well, the nuts having been duly fertilized by the catkins of the Præparturiens. Thus was the problem, in the eyes of Mr. Charonnat, fully solved; and the fact well demonstrated that the barrenness of the Los Angeles walnut was due to its defect in blooming and its earliness in budding out. The nuts borne on the Los Angeles side of that black walnut were large with a rather hard shell, but a fine and sweet kernel. I honestly believe that mountain nuts of all sorts have sweeter and richer flavor, and are more full than valley nuts. That black walnut, with the top half Los Angeles and half Præparturiens, measures six feet and six inches in circumference near the ground. The most curious fact about it, though, is this: At the time the Los Angeles side of the tree is fully out in the leaves, with catkins also in full bloom, the Præparturiens side looks dead, hardly starting out yet. It shows, too, how much reliance can be put in the sayings and writings of theorists: "Never graft *early growing* kinds on those of later vegetation," they say. And now look at the Los Angeles half of that black walnut, the most early growing kind grafted on the very latest growing one, and growing so splendidly. A good many things read one way in books and turn out another way in practice. So is it the case with the various modes of grafting the walnut as we see them in the works of well-known authors.

The history of these two trees of Mr. Charonnat is the best answer that I can give to many of the questions put to me in regard to the practicability of grafting the English walnut on the black walnut, the best kinds of walnut to grow, the adaptability of the soil and climate of Northern California to nut-growing. It is also an answer as to the profits to be derived from walnut culture, that tree of Mr. Charonnat, completely transformed into a Præparturiens, having yielded 160 pounds of nuts last year, which at the present market price would bring $30, a pretty good income for a tree with such a small top yet; and it was a remarkable fact that those two trees bore so heavily the very year that the walnut crop of Southern California proved to be a partial failure.

Grafting over Walnuts.

I have, in former numbers of the PRESS, described the manner of transforming large trees into other kinds through grafting. In that way can all those large, barren trees or inferior kinds of walnuts, be grafted, into prolific, hardy and superior kinds. As the top of the trees, to make them grow shoots to be annular budded in the fall, has to be cut back in the spring, it is well at the same time to try cleft grafting, but it should be done in this way, as more apt to succeed: The cleft instead of running through the center of the stock or limb to be grafted, should be made to run sideways in the sap like the chord of a segment, and the grafts should be made of small twigs as little pithy as possible, cut wedge-like, but less on one face than on the other, so as to have the pith exposed only on one face.

Budding.

As to annular-budding, it is an easy enough operation, but it should be done on shoots of the year's growth and at least of the size of the middle finger; on smaller shoots it is very liable to fail. Such budding should also be made right at the base of those shoots and where the wood is perfectly round. Shield-budding is rather hard to succeed with, but when tried be careful always to have the shield of bark taken from the scion fully two inches in length and very broad. Such shield-budding is more like plate-budding, so large is the shield of bark that it reaches more than half-way round the stock.

Here, by the way, I will describe a little improvement of my own in budding the walnut, either through the annular or shield method. Walnut budding to take well, I have found out, must be made in such a way as to have that part of the ring or shield of bark right under the eye, proper to spread out tight over the exposed wood of the stock. For this purpose the bandage has to be run close to the eye, right under and above it, letting it stick out, of course. But the base of the leaf stem is sometimes so large, and at any rate so much in the way, as to prevent the tightening up of the bandage sufficiently to make that portion of the bark right under the eye spread out tight over the wood of the stock, a condition *sine qua non* of success; for whenever a little hollow remains right under the eye proper the operation will fail. The ring or shield of bark may solder well and keep green, but there will be a black spot in the center, or the very eye be dried up and black; that's what is called "blind" budding.

This is what I do to permit a good tightening up of the bandage: With a sharp budding-knife (such knives should always be kept very sharp) I cut off the base of the leaf stem down to where it would naturally drop off in the fall; thus obtaining a smooth surface over which to run the bandage as tight under the eye as above. Only two, as a rule, sometimes three, and very seldom four, buds can be used from a scion of any length, be it six inches or six feet. These good buds are right at the base of the scion; all the buds above are too angular to be used. This renders buds very hard to be had sometimes. The best way to obtain good buds and in desirable quantities when having large trees to graft, through annular-budding in the fall, is to plant three to four years old trees of the kind it is desired to bud; cut them back an inch or two above the ground, letting the trees throw four to five shoots, which, by the fall, will have attained a proper size. All those shoots but one, the straightest, which has to be left to stand as the future tree, are used for budding purposes.

Requisites of a Good Variety.

As to the best varieties of walnut either to plant or graft, I would simply recommend those filling as near as possible the following requisites:

First, being "hardy," or late in budding out and maturing their wood well.

Second, being fertile—that is, bearing heavy crops.

Third, being "perfect bloomers"—in other words, with catkins and nuts out at the same time.

Fourth, bearing good-sized nuts, with a thin shell. The shell does not need to be too thin, for that would be a defect, but thin enough to be easily crushed with the fingers. They should be well filled and with a sweet meat covered with a thin pale-yellow skin; a thick and dark-brown skin being generally bitter.

Thin-shelled walnuts, of whatever size, but easily crushed with the fingers, are generally those that bring the best prices either for market or for making oil; they are also preferred by all classes of people, especially confectioners, as they give in weight more meat than those kinds with thicker and heavier shells.

Here are some figures on mountain-grown walnuts:

Large-fruited Præparturiens, 30 to 35 per pound; second generation Præparturiens, mixed—that is, from various trees—40 per pound; Los Angeles, 42 per pound; California black walnut, 42 per pound; Serotina, 44 per pound; California late Præparturiens, 45 to 50 per pound; third generation Præparturiens, 50 to 55 per pound. Nuts should be well dried to ascertain accurately their regular weight.

From the seed there is a great variety of nuts obtained—all kinds of shapes and sizes. When having seedlings in bearing, and desiring to graft large trees, always select from those seedlings bearing the largest and thinned-shelled nuts.

"The Sea Breeze as a Walnut Fertilizer."

All kinds of theories, before I had myself explained what caused the unproductiveness of the Los Angeles walnut, north of Tulare, had been advanced, and the fact that that walnut was doing so well in those small sheltered valleys of Southern California, bordering the sea, gave rise to the strange theory that walnuts could not do well—that is, bear well—too far inland; that they should be nearer the sea and have the ocean breeze to gently blow toward their way. The idea that a land shielded from coast or ocean breeze by a range of mountains, or too far from the sea, could not bear well, is, I will say, if not absurd, at least incorrect. In Persia—the very home of the English walnut—the latter is known to do splendidly and bear large crops, hundreds of miles either from the Persian gulf or Caspian sea. Such is also the case in Afghanistan, 400 and 500 miles from the sea. In France, in the Alps and Jura mountains, 400 miles from the Mediterranean sea (a longer distance from the ocean), walnuts are found in large numbers and bearing immense crops; the same in Spain, in the old Kingdom of Castilla, hundreds of miles both from the Mediterranean sea and ocean. And right here, in California, we see those large trees of Mr. Charonnat bearing such heavy crops, 170 miles from the sea, and at 2800 feet up in the mountains. This theory does not explain at all the barrenness of the Los Angeles walnut, which, in Central California, is found "barren" close to the sea, as well as far away inland.

"At What Age Does the Walnut Bear?"

This is a question often put to me. In general, people planting fruit or nut trees are impatient to have them come into bearing. I have always remarked that trees well taken care of bear sooner than trees not planted right and left almost entirely to themselves; such trees, at the same time, bear larger crops and nicer fruit. The walnut is not precisely an exception to that rule. The English walnut and all its varieties, including the Præparturiens, go to *regular* bearing at seven, eight or nine years of age, oftener at nine than at eight or seven. The nuts borne on trees two to five years old, like we see with the Præparturiens, have all to be fertilized by the catkins of bearing trees in the neighborhood; the wind carrying the pollen far away and scattering it broadcast all over the land to a pretty good distance; in that way are the nuts of such small and young trees fertilized and able to mature. This early bearing in young walnuts, wonderful as it is, does not amount to much by itself, since it is not *regular* bearing; however, it denotes a great fertility in the kind, and in fact such trees do bear heavy crops at the very start. To go to *regular* bearing, a walnut must bear catkins, or staminate or male blossoms. People having young walnut trees, about eight or nine years of age, can very well tell whether their trees will have catkins the ensuing spring, as the embyro catkin can very well be detected on the side of small limbs on the main stalk under the form of sharp-pointed little cones, quarter of an inch in length; shorter on the black walnut. The moment a walnut produces catkins it is going into bearing. So is it the case with filberts and chestnuts.

Best Soil for the Walnut.

We have often seen it stated by some people that the walnut, to do well, requires a very deep soil and of a sandy loam. No doubt the walnut will grow faster in rich and deep soil; but that it is *necessary* to have it planted in such soil to *do well* is entirely incorrect. In the rocky and granite soil of our mountains, in the red clay of our foothills, the walnut will perhaps grow more slowly, but nevertheless do and bear relatively as well. Indeed, all kinds of soil are well adapted to the walnut; but when planted in poor and rocky soil, large and deep holes should be dug, at least four feet wide and three feet deep, the scrapings from the surface thrown right in the bottom of the holes, and manure used in planting the trees. Once well rooted, no trouble about the trees doing well and bearing nuts rich in oil in such rocky soil.

Mr. L. I. Fish, of Martinez, has two Præparturiens walnut trees on his place, which, says my informant, is not well adapted to walnuts, as there is not more than three to four feet of soil, underlaid with an impervious hard-pan, which even grapevines cannot penetrate. Mr. Fish gave those two trees a watering with a hose from his windmill tank three times dur-

ing the summer and mulched the ground around them with straw. Poor and shallow as that soil is, one of those nine year-old Præparturiens bore last year 32 pounds of nuts.

Mr. Ed Muller, right on Commercial street in Nevada City, planted a Præparturiens among some boulders in front of his residence. The tree, now nine years old, went into regular bearing last year, and gave Mr. Muller a nice little crop of 254 of the prettiest little paper-shell nuts I have ever seen. The prolific little tree was the admiration of all passers-by, but could not catch the argus eye of our reporters in search of something new to put in their papers.

Mr. I. B. Ducray, on an old abandoned mining claim near this town, has several nine-year-old Præparturiens and Serotinas also gone into regular bearing, one of them being perfectly loaded with catkins, which denotes a very big crop of nuts for the coming season. Mr. Ducray's land is nothing but soft decomposed granite, or bed-rock, with a little mixture of yellow clay and rocks, but holding the moisture well.

I could give many other such instances of the adaptability of our soil, poor as it is, to the walnut, a soil where Los Angeles walnuts and black walnuts, 25 to 30 years of age, have grown already to such large dimensions.

"What Degree of Cold Can a Walnut Bear?"

This is a question having reference altogether to the hardiness of walnut trees through the winter months in countries where the mercury goes below zero. I am not able to answer this question satisfactorily. I know this, though, that in the Jura and Alps mountains in France, where it is as cold as in Pennsylvania, large walnut trees can be seen there and bearing well; but how the walnut would do where the thermometer goes down to 15° below zero, I could not positively tell. Planted in such a climate, the young walnut, it seems to me, should have some kind of protection till it is of bearing size, or at least till it is made to branch out at seven or eight feet; for it is a well-known fact that young walnuts are more sensitive to very cold weather than older ones. A walnut after having reached bearing size can stand very cold weather, especially those hardy kinds that mature their wood well before winter; but whether it could stand 15 and 20° below zero I am not able to tell.

It is an idle question to ask whether the walnut would do well without irrigation where the prune, olive and other fruit trees do.

Trees for Planting.

Is it better to plant one-year old trees than older ones? No; it is not. The walnut being a tree not going into bearing before eight years of age, the older the tree is when planted, the sooner will it go into bearing. A large walnut will stand transplanting as well as an apple tree, if it is well supplied with lateral roots and fibers. If planting large walnut trees or trees four to five years of age, be sure that the trees have lateral roots and never mind the tap root. A walnut with only a smooth tap root, and no lateral roots, is liable to perish; more so where the soil is dry and climate warm. If a walnut is planted in an orchard among large fruit trees, it cannot be expected that it will grow as fine and large as if planted by itself. Give a walnut room, air and sun, if you want it to grow rapidly and bear well. A splendid place to plant a walnut is right by the stable.

A person living far away from a nursery may be compelled to plant smaller trees, which may be sent by mail or express, but otherwise and whenever large trees can be obtained from any nurseries close by, I say, plant large trees.

What is the Profit in Growing Walnuts?

Soft-shell walnuts are the most profitable to grow, so great is the demand and so large the market. A Chicago firm, writing to me a year ago, said that what they wanted the worst from California was nuts, for which, they added, there is an unlimited market. "Perhaps you can do us some good on walnuts, as they are one of our main articles in the line of California products."

Messrs. Pancoast & Griffiths, foreign and domestic fruit dealers in Philadelphia, write to me under date of October 12, 1886: "We notice an account of your walnut interests in last issue of the PACIFIC RURAL PRESS, and we write to ask you to *direct* us to the principal growers and shippers of the same. We think we can interest them to ship here such seasons as this when local nuts are a failure. We get only a few California walnuts here from New York, and they go now very nice in the presence of the Naples and Grenoble imports. There, California walnuts are 13 to 13½ wholesale."

Mr. I. B. Mathews, in a communication on the walnut to the Santa Ana *Blade*, says: "The walnut seems to be more suitable to sections near the coast than the orange or vine. It suffers little from fogs, mildew, insects or blights, that are often injurious to the latter. Its fruit ever commands a ready market and always at remunerative prices. It is nothing unusual for a single tree to bear from $30 to $50 worth of nuts at a time."

Insect Pests.

I have never noticed any insects on the walnut, neither scales nor worms, nothing whatever. Strange to believe, though, codlin moths have tried the husk of the walnut. On my inquiring about worms having attacked the nuts of his trees, Mr. Fish, of Martinez, wrote to me: "You have been reported correctly; we found some walnuts punctured by a worm. It was the codlin moth, I am sure. There were not more than a half dozen nuts probably attacked. One shell was perforated probably when it was quite green and soft; the others only went to the shell. I have no doubt about it being the codlin moth."

In Europe there is an insect that penetrates into the nut, but through the seam at the head of the nut, where it bores itself through very easy, as that is the softest part of the nut, and which the point of a penknife will easily penetrate.

The commercial value of the Præparturiens is the same as that of all other soft-shell kinds from California, whether Los Angeles or any other sorts.

I will conclude this article on the walnut by answering a question put by a subscriber of the PRESS, under the head of

Stunted Walnut Trees.

Says Mr. V. Newmark, of Benicia: "I have a few English walnut trees, ten years old, which are very much stunted by having been planted too near a row of cypress and gum trees. They have never borne any fruit. Will it pay to dig them up carefully and plant them where they will have more room, or would it be cheaper to get a fresh lot from the nursery? Does a tree ever resume its growth after being stunted so long a time?"

It will certainly pay to dig up such trees carefully and plant them where they will have more room; ten-year-old trees have such a start on two, three and four year old stock from nur series, that efforts should always be made to save such large trees. I would therefore advise Mr. Newmark first to remove his trees where they will have *plenty of room;* then to dig large and deep holes, making the ground quite rich through a liberal supply of old rotten manure; and in removing the trees, try to remove them with dirt sticking to the roots, cutting the tap root back, but being careful to save as much of the *lateral* roots as he possibly can. The trees should be given some three or four good waterings through the summer, and the trunk shaded from the sun, so scorching in that part of the State, with two boards nailed so as to form the letter V. If the trees belong to the barren kind referred to throughout this article, it may be well to cut the top back and bud in the fall with a better kind the shoots that the trees are bound to grow, of the proper size, through the summer, if planted and taken care of as suggested here. By the way, when cutting a walnut back, always apply grafting wax or mastic over the wound, on account of the pithy nature of walnut wood.

Walnut trees are sometimes stunted in nurseries, when the nuts are planted the small end down; nuts should always be planted with the suture or seam up and down—that is, perpendicular to the horizon; not only walnuts, but also chestnuts, almonds and filberts.

FELIX GILLET.

Nevada City, Feb. 10, 1887.

THE DAIRY.

Feeding Beets.

EDITORS PRESS:—I have just read in your last issue the article on "Feeding Beets," and for fear that some of your many readers might lose a "valuable cow" by *not* cutting them, I pen these lines. I have fed beets to cows for many years, and never cut them if large, but *small* ones, say from one to two pounds, I always cut, as a cow will take a whole one in her mouth and try to eat it; by so doing she is in great danger of getting choked. I have had several that nearly lost their lives in this way, but I happened to be present and saved them by pulling the beet out of their throats. My mode of cutting small beets is to take them by the root and strike them on the blade of an old spade, made sharp, and fastened on to the side of a box, into which they fall. In this way I cut them very fast, add a very little salt and bran, and they are about as good feed as I know of for milch cows, and my horse is very fond of them.

The article, "Cost of Morning-Glory Remedies," also in your last issue, is decidedly *rich*. We need *facts* more than theories.

IRA W. ADAMS.

Bay State Garden, Calistoga.

Holstein-Friesian Record.

EDITORS PRESS:—My imported prize-winning cow, Lena Wit Menlo, No. 987, H. F. H. B., and No. 1469, winner of the "Free for All" cow class and sweepstakes at Alkmaar, Holland, in March, 1885 (a fair that would rank similar in grade to a world's fair in the United States), a few days ago beat her Holland record of 78 pounds or 9.8 gallons. On the 18th of February she gave birth to a bull calf which weighed 120½ pounds. On the 23d of February she was milked dry at noontime, and was then milked three times between then and noon of the 24th, and gave in the three milkings 10½ gallons of milk—89 pounds. Owing to the stormy weather, she was not turned out and had no green feed whatever, so that this test was made upon dry feed alone, and, I believe, is the best record ever made on dry feed.

As soon as the grass springs up I will give her a 30-days' test. In the meantime, however, would be most happy to have parties interested in this class of cattle, or doubting the record, call at my ranch and see for themselves. I will give affidavits and weights, as found by my foreman and milker, in your next issue.

FRANK H. BURKE.

Menlo Park, Feb. 25, 1887.

THE FIELD.

Summer-Fallow in the South.

A constant reader of and occasional contributor to the RURAL, living in Los Angeles county, sends us a copy of an article he has written for the Los Angeles *Herald*, urging the value of summer-fallow. As has been frequently stated in our columns, the practicing of summer-fallowing has proved of great value in the central valleys of the State, and we shall be glad to know more of it at the South. The article is as follows:

There appeared in the *Herald* of the 15th inst. a well-written article which every farmer in Los Angeles county should "read, mark, learn and inwardly digest." The writer's views upon summer-fallowing, "volunteering" and the early and late rainfalls of each season are the soundest I have yet seen in print. Many years' experience in the Eastern and Central States has proven that by summer-fallowing, land will yield more in the long run than when seeded every year, and the crop is surer. In this State the necessity for summer-fallowing becomes more apparent every year. We will take this season for example. It is estimated by men in a position to know that less than one-half of the land usually sown to grain in this county has been sown during the present season. Experience has shown that grain sown here after the first of March rarely reaches maturity. It is just heading out when early-sown grain is ripening, and the hot weather of the early summer months is sure to wilt and destroy it. The ground is now so wet after the late rainfall of nearly 12 inches that it will be impossible to plow in most localities for a week to come. All farmers know that if seed is sown when the soil is too wet, the ground "bakes" and the crop is destroyed. For these reasons it follows that but little more seeding will be done this winter, and as much of the early-sown grain suffered during the late long dry spell, there will be less than half a crop harvested in this county during the present year. It is not altogether owing to the fact that farmers were afraid of a dry season that so much land was left unseeded. It is only where there is considerable sand in the soil that land can be plowed when dry, or after a light rainfall. A great deal of the rich mesa land in our best grain-growing localities cannot be plowed until it is thoroughly soaked by a heavy rain. Many of our farmers did not sow simply because they could not plow. But how different all would have been had summer-fallowing been adopted. The land plowed in the spring, after our heavy rains are over, lies mellow as an ash heap, and can be sowed at any time during the following winter, let it be wet or dry. The farmer, having but half the work to do that he had under the old system, can bide his time and sow his land when everything is propitious. He will put in his crop more carefully, and the result will be that with but little more than half the labor and expense, he will harvest a larger and better crop from half of his farm than he did under the old slipshod, hen-scratching and dry plowing system from the whole of it. This is the very season in which to inaugurate the summer-fallowing system in Los Angeles county. Half of the land is now unplowed and unseeded. It is now too late to sow with any certainty of getting a crop. But the ground in two weeks from now will be in a splendid condition to summer-fallow. The weeds will all be up and can be turned under and killed. It will not pay to "volunteer" anything this year. The volunteer grain that sprouted with the rain in November last got such a "setback" from the dry weather following that it will not pay to harvest. Weeds flourish where grain will die; and the weeds have got such a start of the volunteer and dry-sown grain that they will choke it out. So plow it under. It will make good manure for the soil, but nothing else. It used to make good "hay," but the livery-men have got so particular nowadays that they object to "volunteer hay" when it is more than half last year's stubble and this year's wheat. When the volunteer crop was allowed to ripen and was cut and thrashed, it was sold to the miller, who converted it into "rolled barley;" but these same livery-men soon got tired of feeding a mixture of barley, clover burs, mustard stalks and weeds, and demanded clean grain. By summer-fallowing and careful farming we can raise good crops every year, and with care in the selection of seed we can raise the cleanest and best wheat and barley in the world. Our wheat is in demand the world over; so is our barley, if it is clean and bright. But, heretofore, our barley has been so dark, and so mixed with wild oats and weeds, that it is not fit to export. We can change all this with but little trouble, and *now* is the time to inaugurate the much-needed change. The man who summer-fallows his land will, in a season like the present, be sure of his crop, and can look forward with complacency to the high prices for grain sure to rule; while the man who did not summer-fallow, and has in consequence been unable to plow or sow (like many of us this year), having nothing to sell at these high prices, will wish that he, too, had tried a little summer-fallow.

Morning-Glory Again.

EDITORS PRESS:—Like Mr. Sneath, I believe in economy, but it is well not to make mountains out of mole-hills. Let us see if Mr. Sneath's figures cannot be reduced somewhat as to cost of salting morning-glory. Salt fit for the purpose I had for $1 per ton spread on the patches. This would cost somewhat more in other localities (cartage and freight). As to the extra inch that Mr. S. would put on, I will only say that a two-horse load is usually sufficient for a dozen patches, the single plants returning only requiring a small shovelful. The straw needed to burn off with (to destroy any seed that may have ripened) is only worth $1 per load in localities where freight is not higher than $1 per ton. Usually there is enough waste straw and other refuse on a farm for the purpose. We will not imagine that every farm has acres of the weed. Though we claim to have some model farms in Alameda county, and more especially in the western part, I do not think many grain farmers would care to pay even the low price of $2 per cord for manure (I never heard of any sales), but there are no doubt other plans to destroy the weed. A grove of eucalyptus, set close, would no doubt kill it, and would secure some return at the same time.

On farms rotated by pasturing, large straw-stacks could be put on the patches (in many cases at least) directly from the separator and with very little extra expense. Keeping the weed always out of sight by cultivation will doubtless also prove effectual, but it should be borne in mind that the roots are liable to be dragged over other parts of the field and thus secure new foothold.

OBSERVER.

Alameda Co.

ENTOMOLOGICAL.

Spraying for Scale and Fungus.

EDITORS PRESS:—During the past seven years, Winter Nelis pears in Sonoma valley have been a failure, owing to the pear blight. The trees every season would be white with blossoms, which, after a time, would turn black, leaving but few fruit buds to set. Bartlett pears within the fog belt are suffering from black pear fungus; this black scab on the fruit retards its growth and greatly reduces its market value.

W. G. Klee, Inspector of Fruit Pests, in his valuable reports recommends a wash that is very simple, comparatively easily prepared, at little expense, which is a sure cure of different mildews, and a destroyer of all fungus life, as well as the black pear fungus. The best results are obtained to apply it warm at about 130° Fahr. by means of a spray pump. Apply it about the first of June, when the fruit is well set. I am going to test it, but I am beset with difficulties at the start. In spraying with Gould's pump warm mixtures of 130°, how must one manage to keep it at that temperature? If it is heated in kettles at the house it will be apt to cool rapidly when emptied into a tank and carried to the orchard. I fancy a galvanized iron tank arranged with fire-box underneath placed on low wheels, short-coupled, light draught, would be desirable and save valuable time, but, having little mechanical skill, desire to learn the best method. Will you show what can be done, and investigate the subject in the interest of MANY FRUIT-GROWERS?

Sonoma.

[In the University orchard an old iron boiler, brick-shaped and about two feet broad, one foot high and three feet long, is used. It is placed upon bricks, thus being raised a few inches from the ground, and a fire is built underneath. The wash is thus heated a few degrees higher than it is desired to have when the fluid reaches the trees. From this boiler the hot wash is drawn off into a cask mounted upon a sled just large enough to hold it and the standard, upon which the force-pump is fastened. One horse pulls this sled along from tree to tree. The man who drives the horse also pumps the wash while standing at a tree, and the spray is applied through two spray hoses and nozzles, one man managing each. It is found in practice that the wash remains sufficiently warm until the barrel is emptied, when it is returned to the boiler and refilled. There are many ways of rigging up an outfit to do the work. If we had a fire under the wash all the time, we should want to watch the thermometer very closely. It is easy to get the wash too hot and do harm.—EDS. PRESS.]

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

We have passed the twentieth milestone of our journey as an organization; success has come wherever the field has been well prepared, the crops carefully tended and the sheaves safely garnered. The great need of our Order now seems to be to let the world know we "still live," that we have come to stay, and the Order of Patrons of Husbandry has not only done more up to this time for protecting and advancing the true interests of the farmers of our land than all other orders or societies combined, but that it has still greater possibilities for the future, and is the one well-tried and proven plan by which —if we will—we can place agriculture where it of right belongs, in the front rank, and command for its followers that respect, fairness and equality that belongs to them by birthright and the blessing of God Himself.

It is *action* we need now more than ever before. Working Granges are the successful ones. Most of us know the principles of our Order now full well. We have been learning them many years, but

"Who learns and learns, but *acts* not what he knows,
Is one who plows and plows, but never sows."

At this writing the President has not named the members of the Interstate Commerce Commission. It is to be hoped that he will recognize our Order and the farmers of our country in appointing one representative of our class on the Commission. Besides Bro. J. J. Woodman, the names of several other good Patrons are "at the front" and being urged by their many friends. Among them are Bro. Leonard Rhone, Master of the Pennsylvania State Grange; Bro. Wm. A. Armstrong, Master New York State Grange; and Bro. Victor E. Poillet, Past Master Pennsylvania State Grange. It would thrill the hearts and nerve the hands of all true Patrons to hear that either of these able leaders in our cause had received the appointment. They have all done much to bring about this legislation controlling interstate commerce.

No wonder the oleo folks are bringing all the pressure possible on Congress to head off our Oleomargarine law. They are being beaten more and more at all points. Here are two items of many we might give to prove this:

In Pennsylvania the Supreme Court has affirmed the constitutionality of the State law prohibiting the manufacture, sale or keeping for sale of oleomargarine. The Court holds that the Act was not in conflict with any provision of the State or Federal Constitution and was entirely within the limits of legislative authority in these words, "The fact that the prohibited substance may be harmless as a food makes no difference with the case, for the sale of a mixture of pure milk and pure water has been prohibited;" and the constitutionality of that prohibition has never been doubted.

A big business has been done at Chicago in oleo oil for making artificial butter. But the oleo oil market there now is absolutely flat. Butterine makers are buying nothing, and quotations are only nominal. It has been predicted that not more than two licenses for dealing in oleo oil will be taken out by Chicago parties in May. The oleomargarine act has evidently proved the death-knell to the manufacturers of artificial butter. There is, however, a large export demand for this oleo oil. Let those "doubting Thomases who are sometimes heard to say, 'The Grange is accomplishing nothing, never benefited me a dollar, etc., etc.,'" figure up the millions of dollars this oleomargarine law, so ably worked for and supported by the Grange, has already put into the hands of the farmers of our country.

"Our Order is gradually gaining ground throughout the country; we are no longer looked upon as mudsills of society. The leading papers of the country are speaking of our movement in the highest terms, when they see that we are organized not to tear down but to build up, and elevate and educate the farmers of our country. Even politicians pay us respectful hearing, for they very well know if the farmers in this country were thoroughly organized and voted together that they would elect every officer from the President down. We have every reason to be proud of the progress we have made and the high standing we occupy, as well as the esteem in which we are held by nearly all classes."—*S. C. Carr, Master Wisconsin State Grange.*

The Lecturer of the National Grange earnestly hopes that every Grange in the United States will send to Harper Brothers, New York city, for a copy of "Railroads and the Republic," by James F. Hudson, price $2. It should be read in the Grange, chapter by chapter, by the Lecturer. The passage of the interstate commerce bill does not end our battles with corporations; we must *study* this transportation question, and this I consider the best book yet published.

Another valuable book that should be read, studied and thought about by every Patron and patriot is "Our Country, Its Possible Future and Its Present Crisis," by Rev. Josiah Strong, D. D. Published by "The Baker & Taylor Co.," No. 9 Bond street, New York city. Price, 30 cents, by mail, in paper covers.

"We live in a new and exceptional age. America is another name for Opportunity. Our whole history appears like a last effort of the Divine Providence in behalf of the human race."—*Emerson.*

And we believe the Grange is a grand help for those who would improve this "Opportunity" for freedom and humanity.

Progress.

Seven more new Granges:

Stafford, No. 55, Tolland county, Connecticut.

Northampton, Massachusetts, 40 charter members and 10 applications.

Upper Lisle, No. 508, Broome county, N. Y.

Lawrence Grange, No. 117, Belmont, N. H.

Victor Grange, No. 677, Clinton county, Mich.

Beaver Run Grange, No. 813, Luzerne county, Pennsylvania.

Spring Valley Grange, No. 814, Bedford county, Pennsylvania.

Two new Pomona Granges:

Penbroke, Maine.

Norfolk county, Virginia.

Georgia is coming to the front in Grange work. State Master Kimbrough and State Secretary Taylor have organized and are pushing a real revival. The *Georgia Farmer* is helping; its last issue said: "The State Grange of Georgia is today more determined to battle on in the warfare for the farmers' rights and interests than ever! So long as one of either shall last, so long have we plighted faith to stay! Conscripted by necessity, yet volunteers by aim and principle, upon neither of which fear we the noonday sunlight of criticisms."

Algona Grange, Iowa, has lately taken 18 new members.

Nashua Grange, No. 13, New Hampshire, has dedicated a new Grange hall.

Evans Grange, No. 35, Illinois, is building a new Grange hall.

"Leave the old paths where your fathers, unheeded,
Wrought out existence 'mid poverty's pain;
Lo! in your hands are the keys that they needed,
Let them not rust with inaction again."

Farmers Pooling Their Wheat.

The farmers of the Walla Walla valley, believing that they have been discriminated against in freight rates on wheat, have taken action, which is described by one of our northern exchanges substantially as follows:

The Walla Walla Board of Trade took the initiative and surveyed and profiled a route of 51 miles from their city through the Eureka flats to a connection with the Columbia river and the Northern Pacific railroad, near Ainsworth. This move attracted the attention of the Northern Pacific and its friends, and soon two propositions were made to the Board of Trade by Eastern capitalists. One was that they would build a railroad from Walla Walla to the Northern Pacific for $75,000. The other plan proposed by the heaviest farmers seems to be the one that will give them relief, and powers of attorney are being rapidly signed by the farmers, whereby they bind themselves to go to the railroad that will, on or before October 1st next, furnish transportation to them for their grain, at a cost not to exceed four dollars per ton to tide-water on all the grain that they will raise on their farms, less that necessary for seeding and home use during 1887 and 1888, the railroad accepting to bind itself never to increase that rate. Meanwhile surveys have been made from Wallula up the Walla Walla river, via Milton, to Walla Walla, Waitsburg and the Eureka flat country, by parties supposed to be in the interest of the Northern Pacific railroad, and there is little doubt that before the present harvest is garnered, the farmers of that wonderfully productive section will be relieved from their unpleasant predicament.

It was telegraphed last Saturday that the wheat contract had been signed by hundreds of farmers in the vicinity of Walla Walla alone, and a million and a half bushels had been already guaranteed.

IN THE GRANITE STATE.—It is a laborious work that Lecturer Whitehead is carrying out in New Hampshire in his series of 45 lectures delivered in 33 towns during the allotted 25 days in January. The earnest, convincing arguments and entertaining oratory are having a grand effect on his hearers, whether at the public or private meetings. The snowstorms and blows have seriously reduced his audiences in some localities, but we feel confident that a genuine and cordial welcome has been extended him wherever he has gone. For effective work Bro. Whitehead cannot be excelled in his defined assignment, that of speaking to the people. His manner and style of delivery create confidence in him at once, while his logic and reasoning clearly prove that he keeps well posted and thoroughly conversant with all the leading questions of the day pertaining to the farmer and his work, and the development of the Grange in its onward and upward march as an educational agency of the farmer and his family, and that can never be too loudly extolled. The weekly communication sent in from his office is receiving merited attention by the agricultural press, and thus aids in keeping our Order and its work well before the reading, thinking people.—*W. H. Stinson, in Farmers' Friend.*

REVIVING THE GRANGE.—"D." writes the *Am. Grange Bulletin:* "One great help we have discovered is this: We placed all dropped members upon the roll-book free of charge—they that availed themselves of the offer being charged dues for their reinstatement. Quite a number are coming back. Then we appointed every member a missionary to try to bring in two new members each."

GRANGE ITEMS.—We observe in the *Patron* that Yuba City Grange conferred the third and fourth degrees on a class of five February 19th, and enjoyed a social lunch and literary exercises afterward....Washington Grange has adopted resolutions of respect, in view of the death of A. A. Van Sandt, one of its most zealous and esteemed members, and lately its Worthy Master.

PLEASANT EVENING AT DANVILLE.—The entertainment given by the young people of Danville Grange, Feb. 18th, must have been a signal success. The Martinez *Gazette* says that the hall was crowded and "Nevada, or the Lost Mine," was admirably performed, the cast being as follows: "Nevada, the Wanderer," Fred. Glass; "Vermont," an old miner, J. Conway; "Tom Carew," a miner, Rollo Glass; "Dandy Dick," a miner, J. Moore; "Silas Steele," J. C. Jones; "Jerdan," a detective, M. Stone; "Jube," a black miner, F. Moore; "Win Kye," a Chinaman, H. Baldwin; "Mother Merton," Miss F. Stone; "Agnes Fairler," Miss I. Hall; "Moselle," a waif, Miss L. Jones. The scenery and stage decorations were appropriate and attractive. The musical portion of the entertainment was of a high character, consisting of a vocal duet by Miss Wilcox and Miss J. Labaree, instrumental duet by Misses Lizzie Elliott and Lottie Wood, instrumental solo by Miss J. Labaree, and selections by Messrs. Schwartz and son. Mr. Charles E. Howard acquitted himself well as master of ceremonies. A social dance followed. The receipts of the evening were $80.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

POULTRY ASSOCIATION.—Oakland *Enquirer*, Feb. 24: The Fancy Poultry-Breeders' Association met last evening and elected the following officers: F. H. Miller, Pres.; W. Woodward, V. P.; Ed. Flannigan, Sec.; D. D. Hayes, Treas. The object of the association is to encourage raising improved breeds of fowls. A committee was appointed to prepare by-laws.

HAY SENT ABROAD.—Livermore, Feb. 28: Shipments of 100 tons of Livermore hay to Panama by the Pacific Mail steamer and several carloads to the Sandwich islands have been made from this place.

Butte.

VINE, ORANGE AND OLIVE.—Oroville *Register*, Feb. 24: Gen. Bidwell is planting out 500 olive trees, and expects next year to largely increase the number. He is also setting out 100 orange trees. It is significant of the value of foothill lands that the General has selected his ranch in Big Chico canyon. T. B. Hutchins, of the Central house, is rooting 12,000 grape cuttings and setting out 3500 rooted vines. The latter include White Muscat, Flame Tokay, Black Prince and Black Hamburg.

Contra Costa.

ROOST-RAIDER RIDDLED.—Martinez *Gazette:* For weeks some "varmint" has been making nightly raids on the Alhambra poultry yards, owned by Jasper Jones. Mr. Jones set traps for the animal, and last Saturday discovered that one of them was missing. He also saw wildcat tracks on the ground. Charles Hickman, who is working on the premises, started out on the trail with a shotgun and soon found the animal in the canyon above Mr. Barney's, with the trap attached to one forefoot. His catship succumbed to a dose of shot and was dragged back to the house triumphantly by his captor. He weighed 24 pounds.

Humboldt.

FROM TRINITY RIVER.—Cor. Humboldt *Standard*, Feb. 26: The sun shines brightly, and the snow is fast disappearing from valley and hillsides. The farmers that are behindhand are taking advantage of the present fine weather to get their late grain in. The grain that is now up is looking fine. The outlook is for a very large crop the coming summer.

FROM BOULDER CREEK.—A young man who returned from Boulder creek on Saturday reported that feed was getting short on the ranges in that section, and that the cattle and sheep had eaten everything within reach. Lord's train of pack mules had been sent there for the winter, but owing to the shortness of feed they will be removed to Arcata for better protection.

Lake.

SNOW AND STOCK.—Lakeport *Democrat*, Feb. 25: Notwithstanding the unusual and heavy snowfall for this section, we do not learn that stock has suffered to any extent. H. A. Humphrey was down from Snow mountain on Tuesday, and reports plenty of snow there, but says the loss of sheep has not been greater than he experiences every winter.

Los Angeles.

BUSY AND CONFIDENT.—Santa Ana *Standard*, Feb. 26: Plowing, planting and sowing is going on rapidly now all over the valley where it is not too wet. The farmers have an assurance of a remarkably fine crop this year, for the heavy snow on the mountains east of town is a guaranty of more rain before long, also an indication of plenty of water in the spring and summer for irrigation.

Mendocino.

ROUND VALLEY ITEMS.—Cor. *Dispatch and Democrat*, Feb. 20: Felix Purcell, a hop producer of this place, talks of increasing his acreage of hops, in anticipation of a boom in that industry....The sheep-raising fraternity are very busy just now, gathering the stragglers home from their neighbors' herds in order that they may be better prepared for the lambing season....Purcey and Fred Handy, sons of the Hon. Philo Handy, who have leased half the Johnson & Handy sheep and range, are deserving of a great deal of credit for their skill and management. Their corrals and other accommodations necessary to the handling of a band of sheep are second to none....Some of our citizens recommend importing a breed of dogs which could stand a chase of 48 hours without rest, in order to chase the poor coyote to his lair and there deliberately exterminate the sheep-thief.

Merced.

CROP PROSPECTS.—Merced *Argus*, Feb. 26: The precipitation has been light, yet with average spring showers, the coming harvest cannot fail of being up to the average. Should the spring prove dry, the crop will be light, though a failure is not probable. Taking all into consideration, this portion of the valley is in good condition; feed is plentiful and cheap; the young grain is sufficiently advanced to justify calculations for an average yield, the condition of the soil for plowing gives farmers an opportunity to summer-fallow an unusually large body of land for next fall's sowing, a large proportion of which is new land. Stockmen also claim that feed is sufficient for stock to thrive, and no complaint has been so far made of loss of stock by the winter storms.

Napa.

WINE TRADE.—St. Helena *Times*, Feb. 23: About 500,000 gallons of wine have been sold so far in the upper portion of our valley for low prices; another 500,000 gallons will probably be disposed of for similar prices, as the owners will not be able to hold on. Of the balance of our '86 vintage, estimated at 4,800,000, about 75,000 gallons were made up into brandy; over 1,500,000 are in the hands of parties with direct trade—such men as Carpey & Co., Napa Valley Wine Co., G. Migliavacer, Niebaum, Wineberger, Beringer and others. The balance of over 2,000,000 gallons the owners will not sell for less than 20 to 25 cents.

Nevada.

APPLES AND WINES.—*Record-Union*, Feb. 23: A box of Spitzenberg apples and different samples of wines from Wm. Ragsdale, of Magnolia, in Nevada county, near Clipper Gap, show the excellencies of soil and climate of that section for such products. The apples are as fine in quality, size, color, firmness and flavor, as have ever been exhibited in this market; while the wines, which are only "home-made," and produced without any fixed rule, or attempt at blending, show a native purity and quality which afford the highest evidence of almost unequaled adaptability of soil and climate for wine productions. There are abundance of cheap lands in that vicinity, lying in Nevada and Placer counties.

AGRICULTURAL ASSOCIATION.—Grass Valley *Union:* The directors of the 17th District Agricultural Association met at Nevada City, Feb. 19th; present, Directors Perkins, Dresbach, Hayford, Maslin and Granger. V.-Pres. Hayford presided in the absence of A. Walrath, who had resigned as a director and president of the association. Cal. R. Clarke presented his credentials as director under appointment from the Governor. The election of president of the association being in order, Cal. R. Clarke was elected to fill the unexpired term. A resolution was unanimously adopted tendering the thanks of the association to the Hon. A. Walrath for the interest he has always displayed in the welfare of the association and the fidelity with which he has discharged his onerous duties.

THANKFUL FOR SNOW.—North San Juan *Times*, Feb. 25: Nothing could be more beneficial to the fruit-raisers in this section of Nevada county than the snow that now covers the earth. If it lasts until the first of April it will be a God-send. The snow will keep the sap from flowing to the body and branches of the trees, and prevent early budding and thereby escape the spring frosts. Bartlett pears will be plentiful next fall.

Placer.

AFTER THE STORMS.—*Herald*, Feb. 26: P. Ahart, a large farmer and sheep-raiser of Western Placer, was in Auburn Wednesday. The grain, he says, looks well, but the late cold, stormy weather has been fatal to young lambs. He and O. P. Richardson, his neighbor, have both lost heavily of young lambs.

San Benito.

OLIVES.—*Free Lance:* J. I. Hodges has in his garden two large olivé trees, each over 20 feet in hight. They were planted years ago, by Col. Hollister, and have borne each season for many years. This year the crop was abundant, and was purchased by Judge Logan, of Santa Cruz, who will pickle them. The trees are of the Mission variety, and grow on the ordinary soil of the Hollister valley.

CHEESE.—Now that grass is springing so abundantly, the dairymen are making increased quantities of cheese. G. F. Mitchell is making 11 large cheese daily, weighing 25 lbs. each. The San Felipe factory is turning out six large and seven or eight small cheese daily, which at present prices pays well, the last sales having been 16 cents.

San Bernardino.

THE GAGE CANAL.—*Valley Echo*, Feb. 24: The water was turned into the Gage canal permanently on Monday, Mr. A. J. Toogood being appointed temporary superintendent. Mr. L. C. Waite was the first to use the water for irrigating purposes. Water can now be had at all times for lands entitled thereto.

Santa Barbara.

LOMPOC ITEMS.—Cor. Santa Barbara *Press:* A large area of barley has been sown and some wheat; but wheat is not a safe crop to raise here. Much more grain will yet be sown. Good barley has been raised here, sown the 1st of April, especially when the rains come late. A large amount of mustard will be sown, as last

year's crop was quite remunerative. Beans will not receive so much attention as they have some years past, but will make a considerable item in the shipping list. Potatoes have paid quite well the past year. Dairying has not been so encouraging this season so far as in the past; but now that we have had abundant rainfall, dairymen will be able to make up for lost time. Shipping has been somewhat uncertain for the last month, owing to the stormy weather. Some produce and hogs are being shipped by every boat that calls.

Solano.

PLANTING OLIVES.—Dixon *Tribune:* The fruit-growers of Cordelia are taking a new departure in the matter of digging vines and substituting olive trees. F. S. Jones has just received 5000 cuttings and 250 trees of two-year-old growth, which he intends to plant on his farm.

ALMONDS ON LEASED LAND.—John and Enoch Anderson have recently leased of Jno. C. Drummond a tract comprising 80 acres of choice fruit land, which they design planting in almond trees. The terms of this lease are for 10 years, at an annual rental of five dollars per acre, and at its expiration the orchard reverts to Mr. Drummond, who will then, upon a moderate computation, find himself possessed of an income of $8000 per annum from this 80 acres.

Sonoma.

BIG BEETS.—*Democrat:* J. Roberts sent some samples of mangel-wurzel beets to S. F. Saturday morning, one of which weighed 43 pounds and measured five feet in length. The smaller ones averaged 30 pounds in weight and were fair samples of the productiveness of the soil surrounding Santa Rosa.

THE OUTLOOK.—Petaluma *Courier*, Feb. 23: More grain was sown than usual; the season for seeding was auspicious and crops were planted in due season. We hear the most favorable reports from all parts of the county. We have had all the rain we needed. Stock has so far wintered well, and with a little extra feed, with which most farmers are supplied, will come out all right in the spring. Sonoma county is all right, and our prospects for the coming harvest could not well be brighter. The entire county looks as green as in the spring, and almond trees are in full bloom.

BUTTER FOR JAPAN.—A. L. Whitney & Co. have commenced shipping butter direct from Petaluma to Japan. They recently made their first shipment to Tokio, and the butter gave such good satisfaction that a second shipment was made, and this week the third went off. The trade promises to be a large one.

WALNUT TREES.—*Argus:* A great many walnut trees are being planted in and around Petaluma.

Siskiyou.

WINTER IN BUTTE CREEK VALLEY.—Cor. *Dispatch and Democrat*, Feb. 18: Snow is 18 inches deep on the level. Seven degrees *below* zero is the coldest we have had. This is said to be the hardest winter old settlers have experienced for years. Those who have stock are feeding; but there will not be many lost, as the people are well supplied with hay.

Tehama.

A HERD OF HEREFORDS.—Red Bluff *Sentinel*, Feb. 26: There arrived here yesterday, consigned to B. A. Bell, of the Gallatin ranch, 22 thoroughbred Hereford cattle, ranging in age from eight months to two years. They were bred by T. L. Miller, of Beecher, Ill., a man famous in the Hereford cattle business. They are real beauties, and are in splendid condition considering their long ride. Mr. Miller is now in Sacramento, and is thinking seriously of starting a thoroughbred Hereford farm in Northern California.

Tulare.

GRAIN PROSPECTS.—*Delta*, Feb. 24: Since the late heavy rains everybody at Lakeside is busy seeding, and as most of the farmers had their old land seeded before the rain, they are breaking up new land; so the acreage of grain will be much larger in this section than it ever has been before....A Three Rivers correspondent says: We are about through sowing grain. That which is up looks well. The ground is too wet to plow this week, so we are grafting and setting out trees. Almond trees were in bloom about two weeks ago.

Ventura.

HUENEME NOTES.—Cor. *Free Press:* Of course the rain, about eight inches, was very opportune. It has put all our farmers in a happy frame of mind, and not alone the farmers but the entire community. The grain fields are looking very well, and give promise of abundant crops. But the weather is cool and the grain grows very slowly.

NEVADA.

A NOBLE NORMAN.—*Nevada State Journal:* M. H. Hardy & Co., of the Oasis ranch, Toana, have sold the noted Norman Percheron stallion colt Elector to Messrs. Rhodes & Bragg, of Long Valley, Lassen county, Cal. This fine animal will be four years old the coming spring, is 18 hands high, girt 7 feet, coal black, and will weigh, when grown, 2200 pounds. His pedigree for seven generations, on both sides, shows large stock, and that, together with his size, form, color, style and action, proves him the best draft stallion of his age that ever crossed the Rocky mountains. He took the first prize at the World's Fair, 1884-85. Messrs. Rhodes & Bragg have been traveling in search of a suitable animal to place at the head of their herd, for the purpose of breeding graded stallions to supply the demand from Eastern California and Western Nevada, and hearing of this famous colt Elector, a member of the firm came on and was so well pleased with him that the purchase was immediately concluded, and the young horse will be shipped to California.

OREGON.

FROM THE RANGES.—Lakeview, Feb. 24: Snow has been falling here at intervals for a month. Reports from the Winter range state that fully 25 per cent of the cattle and many sheep have perished for want of food. Horses are in better condition, as they are better "rustlers" for outside feed. Stockmen who are feeding report no losses. Hay and wood are scarce in town. The weather is not severe at present, but there is a good depth of snow.

NOT HARD ON LIVE-STOCK.—Portland, Feb. 28: The snow is all gone. The Columbia to the Dalles is open for navigation. Eastern Oregon specials say that the snow is going off rapidly, and there will be but little loss of cattle and sheep.



BANANA PLANT SHOWN BY JOHN ROCK AT THE SAN JOSE FAIR.

Banana Plant in Fruit.

On entering the pavilion during the recent citrus fair at San Jose, one obtained a glimpse like that shown in the engraving on this page, the prominent object in the foreground being the thrifty banana plant from John Rock's nurseries near the city of San Jose. This plant stood 10 feet high, had a stalk 8 inches in diameter, and leaves 6 feet long by 18 inches broad. The bunch of fruit, 18 inches long, was still green, and the blossoms had not disappeared. The plant was in fine show condition and was much admired.

The camera, though charged with the special duty of catching the banana, captured also a vista of the inner parts of the pavilion, including a group of people who may be regarded as Eastern capitalists delighted with the grand display made of California productions. One is apt to meet many such people at our industrial fairs in all parts of the State.

Viticultural Convention.

The convention in this city next week under the auspices of the California Grape-Growers' and Winemakers' Association, promises to be one of the most important meetings of the kind ever held in the State. The sessions will be held at the Grand hotel, on Market street, in the large room commonly known as "Music Hall." The following program gives dates and hours for the different themes which will be considered:

First day, Monday, March 7th—11 o'clock, examination of wines and other exhibits; 3 o'clock, address by the president; 8 o'clock, addresses by M. M. Estee on "Grape-Growing and Wine-Making in California," and "Handling Young Wines in Cellars," by H. W. Crabb. A free discussion on both questions is invoked.

Second day, Tuesday, March 8th—9 o'clock, sampling of exhibits; 3 o'clock, "Experiences in Fermentation in 1886 and Prospects of the Wine Industry," by John T. Doyle; "Co-operation in Viticulture," by Prof. George Hussman, and "What Constitutes Pure Claret; its Requisite Qualities as a Beverage, by Arpad Harazsthy; 8 o'clock, "Eastern Markets," by E. C. Priber, and "Fine Wines," by Charles Bundschu.

Third day, Wednesday, March 9th—9 A. M., sampling continued; 3 P. M., "Table Grapes and Raisins;" general discussion; "Coloring and Adulteration of Wines," by H. A. Pellett; 8 P. M., "Treatment of Wines After Fermentation," by Prof. E. W. Hilgard; discussion of the same subject will follow.

Fourth day, Thursday, March 10th—In the morning, sampling of exhibits continued; at 3 o'clock, "Climatic Conditions in Developing Wines" and "Condensed Must," by C. A. Wetmore. In the evening, election of officers of the association. The remaining samples will be further examined on Friday morning.

PLEURO-PNEUMONIA.—The Hatch Pleuro-pneumonia bill has passed the Senate, and, having amendments, had to return to the House. If the bill becomes a law, we shall secure an authentic copy as soon as possible for the information of our stock-growing readers.

THE alarm about smallpox in Los Angeles appears to have subsided. Mayor Workman stated, on the 1st, that no new cases had occurred for over a week.

CHIEF JUSTICE MORRISON, of the Supreme Court of California, died on Wednesday last.

The Rain.

Precipitation for the Month and Season.

The following table prepared by the United States Signal Office shows the rainfall for February and for the season to March 1st, with the average for the season to that date:

STATIONS.	Total for February.	Average for season to March 1st.	Total for season to March 1st.
Olympia, W. T.	4.30	44.83	35.10
Spokane Falls	1.60	....	10.20
Walla Walla	1.80	11.00	11.24
Portland	2.80	37.06	30.37
Roseburg	6.20	25.64	30.69
Fort Bidwell	4.80	....	15.22
Winnemucca	1.50	5.54	5.97
Delta	10.72	35.05	24.32
Redding	8.35	25.12	17.40
Red Bluff	5.30	20.31	11.81
Tehama	4.02	11.37	7.13
Corning	6.81	10.50	9.57
Chico	6.58	15.57	11.11
Nord	7.72	....	11.78
Orland	3 74	8,85	6.34
Willows	1.85	7 99	3.21
Marysville	6 09	12.18	9.75
Colfax	7.95	30.20	17.57
Auburn	11.93	23.01	20.85
Rocklin	6.82	13.92	12.01
Dunnigan	6 93	11.46	10.32
Woodland	5.78	11.68	7.87
Davisville	6.14	11.77	9.42
Calistoga	11.19	22.98	18.95
Napa	10.70	16.50	16.40
Sacramento	6.30	14.28	10.50
Brighton	4.94	10.25	7.91
Suisun	6.07	14.98	9.40
South Vallejo	7.52	9.91	11.74
Martinez	6.86	11.04	10.54
Antioch	3.77	7.67	5.57
Oakland	8.05	14.24	14 25
Stockton	3.36	9.31	5.38
San Francisco	9.24	18.23	15.77
San Mateo	8.89	13 42	13.58
Menlo Park	4.32	9.51	7.80
San Jose	6.71	8.68	9.35
Santa Cruz	9.62	17.70	14.72
Aptos	8.82	....	13.27
Gilroy	5.14	14.15	8.24
Borden	2.27	5 93	4.09
Fresno	3.11	5.72	4 86
Selma	2.75	....	4.24
Hollister	3.13	8.17	5.54
Salinas	4.62	9 37	7.64
Monterey	4.92	8.98	7.35
Pajaro	5.95	13.47	10.51
Soledad	3 94	6.20	5.47
Goshen	2.66	5.11	4.35
Hanford	2.30	7.49	4 05
Tulare	1.83	4 47	3.44
Delano	2.33	3.77	3.86
Spadra	4.77	8.80	6.42
Los Angeles	9.20	12.12	11.45
San Diego	4.50	8.07	5.60
Yuma	....	3.32	3.57
Keeler	.90	....	....
King City	5.08	....	6.72
San Ardo	5.58	....	6.68
San Miguel	5.94	....	6 93
Paso Robles	6.14	....	7.71
Templeton	4.99	....	9.05
Niles	10.05	13.21	14.11
Pleasanton	5.78	11.27	8.56
Livermore	6.09	9.93	9.90
Ione	7.36	12.21	11.63
Turlock	2.30	6.13	3.80
Livingston	2 43	....	3.95
Merced	2.83	7.13	4.26
Athlone	3.81	....	5.84
Kingsburg	2.48	5.77	4 05
Newhall	7.95	9.81	9.03

Sinclairville Stock Farm Notes.

Messrs. B. B. Lord & Son, of Sinclairville, N. Y., write us:

Our stock is wintering finely, and the herd are in splendid condition. Cows have commenced dropping their calves, and the spring trade opens with most flattering prospects.

Our correspondence is daily increasing, and the demand for first-class Holstein cattle was never better.

Last week, J. M. Stevenson, of the firm of Stevenson Bros., Bulger, Penn., visited the farm, and selected some extra fine animals to head their valuable herd of Holsteins. Like many others, he best expressed his appreciation of the great Barrington by placing one of his sons first upon the list; Zymel's Barrington, 1841, H. F. H. B., one year old, whose dam has a milk record of 87½ pounds per day, grand-dam 84½ pounds milk per day, and 18 pounds of butter in seven days. The dam of her sire has a milk record of 81½ pounds per day, while Barrington's dam, the wonderful and beautiful Hamming, has a milk record of 99 pounds in single day. This calf is indeed a treasure, and will be a credit to Mr. Stevenson's judgment of the cattle. He also purchased three cows and one yearling heifer.

Schuiling, 3350, H. F. H. B., a handsome animal, with milk record of 80½ pounds in single day, will head his herd of females.

M. Cook, of the well-known Canadian firm of M. Cook & Sons, the pioneer Holstein breeders of Canada, is now our guest. This firm has purchased all their Holsteins from our importations, and has now decided to place at the head of their herd a son of Barrington, and a daughter of Hamming.

He takes Jenne B 3d's Barrington, 4207, H. F. H. B., who, like all the famous Jenne B family, is in himself a grand acquisition; and also Hamming 3d, 5361, H. F. H. B., out of Hamming, already described, and sired by Neptune Jr., 1916, H. H. B. The value of these selections cannot be overestimated. He also purchased Sir Archibald, 3045, imported by us, and one of the best known bulls in Canada; having taken more sweepstake prizes and medals, both gold and silver, than any other Holstein bull in the Dominion.



The Independent Farmer.

An Eastern View.

How pleasant it seems to live on a farm,
Where nature's so gaudily dressed,
And sit 'neath the shade of the old locust tree
As the sun is just sinking to rest:
But not half so pleasant to hoe in the field,
Where the witch-grass is six inches high,
With the hot scorching sun pouring down on your back,
Seems each moment as though you would die.

'Tis pleasant to sit in the cool porch door,
While you smoke, half reclined at your ease,
Looking out o'er your beautiful fields of grass,
That sway to and fro in the breeze;
But not quite so pleasant to start with your scythe,
Ere the morning sun smiles o'er the land,
And work till your clothes are completely wet thro',
And blisters shall cover your hand.

In keeping a dairy there's surely delight,
And it speaks of contentment and plenty,
To see a large stable well filled with choice cows,
Say, numbering from fifteen to twenty;
And yet it seems hard, when you've worked from the dawn
Till the sun disappears from your sight,
To think of the cows you have yet got to milk
Before you retire for the night.

In raising young pigs there is surely a charm,
When they sell at the present high price,
And of all the young stock which a farmer can raise,
There's nothing that looks half so nice.
How cheerful one feels as he leaves them at night,
The encouraging number of eleven!
But his joys slightly wane when he goes out next day
And of live ones can count only seven!

'Tis pleasant to sit by a warm winter fire,
When the night draws its curtains around,
With wife and children to make home complete,
And peace and contentment abound;
But ecstasy fades when you shoulder your ax,
And trudge off a mile through the snow,
While the cutting west wind drives the snow in your face,
So you scarcely can see where you go.

But no one disputes that the farmer is blessed
With true independence and labor—
Whose food don't depend on the whim of mankind,
Like that of his mercantile neighbor;
For God, in His mercy, looks down from above,
And paternally gives him his bread,
Provided—he works eighteen hours every day,
And devotes only six to his bed.

A Plea for the Story-Teller.

[Written for the RURAL PRESS by I. H.]

Not long since one of the contributors to the Home Circle said some pretty sharp things about the "continued stories" which from time to time appear in its columns. That the adverse opinion which she expressed is not shared by the great reading public is proved by a glance at any of the popular magazines or literary papers of the day.

Serial stories are one of their principal features—it would seem one of their chief attractions; and the majority of readers, whether old or young, take pleasure in keeping up for weeks and months an interest in the characters and incidents thus brought before them in regular installments.

Clearly it is a matter for individual preference. If a busy man or woman finds it an annoying tax on attention and memory to recall what Mr. Jones or Mr. Smith was saying or doing in the last week's number of the family paper, by all means let Mr. Jones or Mr. Smith be dropped, and the story of their performances ignored.

It is not for the purpose of forcing upon any one the opposite opinion that I write, but merely to put in a plea for the story-teller who does not always act from *malice prepense*.

There is probably no one who imagines that the writer of a story for the RURAL PRESS sits down with the deliberate intention of covering so many sheets of paper, and forthwith proceeds to create characters and devise situations whose description shall require the necessary number of words.

Something very different is generally the method employed. It may be in some leisure half hour, or while the hands are busy with merely mechanical tasks leaving the mind free, that an idea presents itself which gradually unfolds and takes tangible form and shape.

The characters which are to appear in the yet unwritten story develop themselves, as it were, and the author feels as keen a delight in making their acquaintance as if they were real creatures of flesh and blood.

Not until they have been daily companions for a week or a month—it may be for a much longer time—is the pen taken up and the attempt made to introduce them to others. Then the incidents, dimly defined before, are distinctly portrayed, and the story, long or short, is completed.

Of course it is possible to rewrite it, to condense and curtail; but there is a limit to the process beyond which one cannot go without injury to the interest of the story. Nor is the shortening always desirable. Take, for instance, the charming account of the "Evolution of Mrs. Thomas." Who would willingly spare any of the details by which M. H. F. has brought us into intimate acquaintance with each member of the family, and made them our familiar friends? Ours would have been the loss had she cut down the pretty, simple story to the limits imposed by one appearance in the columns of the paper.

It may seem a strange thing to say, but it is true, nevertheless, that the author of a story cannot at will alter its construction and control the actions of its characters. Some one lays down a popular novel with the exclamation, "Why did he bring it to such an unsatisfactory end? Why did not Mary marry Tom?" Why indeed? Probably because no other conclusion seemed possible—because Tom and Mary were real individuals to the author, and carried out their own plans and had their own way, leaving him nothing to do but to tell the tale.

Does this theory offer an excuse for works of an immoral tendency, for the miserable sensational novels whose mission is only evil? By no means. The mind which can take pleasure in the contemplation of worthless characters and debasing deeds must be very far astray from the paths of rectitude and virtue; and if the indulgence of such imaginations is reprehensible, how much worse to express them in written words and bring their evil influence to bear on other minds and other lives.

The responsibility resting upon every one who writes for the public begins before the fingers grasp the pen, in the habits of thought, the very imaginations of the heart. If a strict guard is kept there is no danger of any spirit of evil going forth to mislead or to destroy. But this is far away from the original topic, which was only to bespeak an intelligent sympathy for the story-teller who may transcend the usual limits; and to beg the editor not to consign to the waste-basket any manuscript whose only fault lies in its being a "continued story."

Walnut Creek.

Keep Your Best for Home.

There is no place where good manners and punctilious etiquette is of more value than in the home. It is the moral agent of good breeding; it is the law that governs the manifestations of kindness and good feeling, and also the law that restrains unkind and ignoble traits of human nature from expression.

Keep your best temper for home. In society, on the streets, in business, everywhere, it is easier to control that attribute, if we guard the hasty word, the peevish tone, the irritating action, in the home circle, and study to wound none of its inmates.

Keep your best spirits for home. Nowhere do gloomy and depressed spirits tell so disastrously as at home. The parents may have just cause for anxiety and care, but it is wrong and unjust to shadow the young life of children with anxieties they cannot appreciate, and cares they cannot understand. The tendency to brood over trouble or misfortune increases with its indulgence. So, also, the disposition to be cheerful and happy at all times increases with cultivation. This is by far the most admirable trait. Those who are sunshiny and cheerful in charac ter always have the most friends, and where are friends so true and loyal and so desirable to perpetuate as those of home and family? The old comparison of the bent twig is as true in this case as in any other, and children who grow up in an atmosphere of foreboding of the future, anxieties about the present and cynical reflections on the motives and actions of people about them, are training a tendency to be miserable and sad, and in their turn cast shadows, instead of sunshine, on the path of all about them.—*Selected.*

TEACHING HIS WIFE A LESSON.—The *Record-Union* tells how a well-known citizen of Sacramento was going up J street the other evening, when he espied his wife a short distance ahead of him, evidently "out shopping," and apparently thinking only of what it was best to buy and where to buy it. A day or two before they had been speaking of the boldness of thieves in snatching ladies' purses, and she expressed the belief that there was little danger if the owner of the purse was careful, and she was Old Care personified. So when her husband saw her swinging her purse gracefully as she moved along, he determined that he would teach her a lesson. Quickening his steps, he soon overtook her, snatched the purse and ran away a few yards—but only a few, for he was followed by a screech loud enough to be heard half a mile. As he had not bargained for too much notoriety, he retraced his steps, remarking, as he came up, "Don't be foolish, Annie!" and was about to add something more, when the light shone fairly in the lady's face and he found that it was not his wife, but a stranger! She listened to his apologies with a tolerable good grace, but there crept into his mind a suspicion that somehow there had been a mistake as to the recipient of the "lesson." He vows, however, that his wife shall never hear of it, from him at least.

The Celebrated Peak's Cave in Derbyshire, England.

[Translated from the German Works of JOHANNA SCHOPENHAUER by PROF. GRANVILLE F. FOSTER.]

We now entered a narrow, frightful valley. No tree—not so much as a trace of vegetation; only bare, steep rocks, among which we were obliged to pick carefully our way—rocks which threatened every moment to bar effectually any further progress. We were traveling through the very bleakest, saddest, most frightful region in England. At last we reached Castleton, the most wretched little town we had as yet laid our eyes upon in all England. Soon as possible after our arrival, we hastened toward the Peak's cave, which lies only a short distance from the town. Its entrance is indeed grand and imposing. Before us rose a row of enormous rock masses, almost perpendicular, of wonderfully jagged forms, and with tree-crowned summits. In one of the vast masses had nature hollowed out a gigantic arched gateway, 42 feet high and 120 feet broad, through which one seems to look into impenetrable darkness. Adorning the front of the vaulted gateway, like columns supporting the roof of a portico, were enormous, fantastically shaped stalactites, between which wild briars rankly grew, and around which wild ivy twined and crept, hanging therefrom in gay and delicate festoons, which fluttered gracefully back and forth in the breeze. From the roof depended vast masses of rock, which seemed to threaten ruin to the head of him who would unwittingly seek to penetrate the mysterious recesses of the under world.

We stepped into the cave. The midnight blackness soon softened into a mild twilight, as the eye accommodated itself to the little light. And now we readily perceive in the first great room of the cave a large number of women and children, assiduously spinning—as wretched a set of shapes as the imagination can well conceive. Like gnomes, crouched they in this cold, clammy darkness, here prolonging in a most miserable manner their wretched lives. At night they sleep in little board huts, which they erect for themselves within the cave and of which we saw a considerable number standing around. As soon as we were seen approaching we were surrounded with a host of importunate beggars, vehemently demanding money. We were fortunate in having taken the advice of our host at Castleton, and thus providing ourselves with a good supply of copper coins, with which to purchase our freedom from their persistent importunity. The warmth of the cave in winter, which renders buildings ordinarily well built unnecessary, the small sums of money collected from strangers, and above all, the freedom from taxes, which are only demanded from those living in the sunlight of the upper world, have induced these poor people to choose a dwelling-place so damp, dark and disagreeable.

After disposing of our store of change we purchased lights. Each one of our party carried one and the guide, who led in the advance, two, and thus we proceeded deeper into the dark background of the cave. As we were passing along our attention was called to several stalagmitic and stalactitic masses, for each of which the guide had a name. Now a low, narrow door is opened, through which passing we are ushered into a grand vault, from the roof of which hung down gigantic masses of rock, which ever and anon seemed just starting to fall upon our poor, devoted heads. The glimmer and shimmer of our flickering torches lent a double horror to these masses and increased the illusion that they had started to fall, for they seemed actually to move as we passed on. Soon the vaulted chamber became lower and lower, until, bent almost double with uncertain steps over the slippery, uneven ground, we were obliged to wend our way through a mere chasm in the rocks, which here ascended almost precipitately upward, or there descended in like manner downward. The air was clammy, or as we might truthfully say, tough, since we had actually to press ourselves through it by main force. At length we reached a spot where again we were able to lift up our heads. Here we found ourselves in a small chamber by the bank of a subterranean stream, which, like the mythical river Styx, rolls cold and still its murky waves through the regions of everlasting night. A straw-filled skiff lay moored at the shore in which two persons, stretched out at full length, could lie near one another. The guide stepped into the water, which reached almost to the hips, and in this position pushed before him the skiff, while we lying upon the straw hardly dared to breathe. We sailed under rocks which lay distant scarcely a hair-breadth from our heads, which threatened every moment to annihilate us. On either side was there not so much as a single inch of bank or shore upon which to set so much as one's foot. Never was the idea of being buried alive more vividly realized in imagination than by us here in this coffin-like skiff, with the dark and gloomy rocks above us. The guide was obliged to wade quite bent over. Let him but inadvertently strike his head against a jutting rock with force enough to render him insensible, and we, oh, horrid thought, would be in a manner terrible to conceive of lost, perhaps beyond recovery. Busied with these gloomy reflections, we continued our underground voyage a considerable time until we were able to land. Tightly grasping the torch, we mounted out of our coffin. Dizzy from our extraordinary voyage, we were compelled to rest awhile to recover ourselves ere we could look around, and hardly had we done so when dizziness again threatened to seize us. Here were we in a vast dome 120 feet high, 270 feet long and 210 feet wide. Here and there, as in a great church, sparkled like stars a crowd of scattered lights. This is the temple of everlasting stillness, into whose pitchy depths a single beam of the sun-lighted upper world, or a sound of its joy, has never entered. In this boundless space we felt even more uneasy than in the narrow chasms and constricted chambers, because the great distance from all life was here the more painfully apparent from the vast space which visibly separated us therefrom. With toilsome steps and slow, we clambered over or crawled between masses of torn and rough rocks until again we reach water. Here, standing still, our astonished ears were greeted with tones of music which seemed to float to us out of the distance as though some one was playing a musical instrument in some far distant room. Here, our guide plunging again into the water, took, one by one, each visitor on his shoulder, and waded a considerable distance to the rocks, on the opposite side of the stream. We saw a little round hole, into which the water was incessantly pouring from all sides. Here we found the cause of the musical tones, which seemed awhile before to reach us from a great distance—the continual, hasty dropping of the water into the hole in the rock caused air waves to be formed, of a sufficient number per second to create a musical tone. The floor was strewn with the most fantastic stalagmitic forms. Just as fast as we were able to do it, we hastened forward, and in a lofty, vaulted portion of the cave, a peculiar surprise awaited us. A choir of men greeted us with a slow, monotonous song. With lights in their hands, which they continually swung back and forth, there they stood 40 feet above us, in a kind of niche in the wall of the vaulted chamber. Their song was somewhat harsh; a little out of tune, wild, plaintive, but nevertheless not at all unpleasant. After this wonderful reception, our progress was resumed. With anxious step, and bending over, we glided by or climbed over more rock-masses until we reached a small-sized chamber, more frightful and awful than any preceding—a very ante-room to the dominions of his Satanic majesty. Here, at our feet, gaped a black abyss, into which we, trembling, tried to peer. The guide showed us a steep, clammy footpath, which led to the bottom over slippery limestone rocks. "This is the Devil's Cellar," remarked the guide, as he led the way with his light down the steep incline into the abyss, whose lowest parts must have reached a depth as great as the hight of Niagara falls. The few visitors carefully surveyed the dizzy and dangerous descent, and none essayed to follow, but were content to look into the yawning gulf beneath, while the guide, with a few lights, cautiously descended. By aid of the flickering lights we beheld below us bold, bow-like recesses, mighty towering pillars, all formed by nature, while in the greatest depths we caught glimpses of the water as it passed, purling and gurgling along in its subterranean channel. Finally the guide ascended and we commenced our return journey. At length we reached the second room from the entrance, and here a distant glimmer of daylight reaches our eye, long accustomed to the darkness, filling us with indescribable joy. Two hours had we remained in the dwelling-place of night and of eternal stillness. Now, as we stepped forth into the joyful sunlight, and are greeted again by the mild, cheerful summer air, blowing a breeze warm and lively, it appeared to us as though we had just awakened out of a disagreeable dream.

Sunol Glen, Cal.

Wordsworth's Masterpiece.

[Written for the RURAL PRESS by F. H. A.]

In a letter to the RURAL some weeks ago I referred briefly to the high quality of Wordsworth's poetry, and said I preferred it to that of a more sentimental character. I can, however, recall the time when Moore was my favorite and I thought Wordsworth dull. "Lalla Rookh" I liked particularly well, especially the poem in it entitled "Paradise and the Peri." This I learned by heart, and most of the "Melodies" as well. But that was when I looked more at the letter of a thing than the spirit of it. As we grow intellectually we grasp by degrees the inner meaning of all that comes under our observation. And the more we expand in mental breadth and insight, the more significance we perceive in everything. A writer who had this faculty of looking beneath the surface in a high degree thus expresses himself on this matter:

"I hearing get who had but ears,
And sight who had but eyes before;
I moments live who lived but years,
And wisdom learn who knew but learning's lore."

How many can testify to the truth of this! Some have come to know it through a great and overwhelming grief; others, by a sudden flash of light thrown by some kindly hand or thoughtful book; others, from the very first seem alive and sentient to the hidden purport of things.

Wordsworth and Emerson are the two men

who have been said to have reached the high-water mark of thought of the age. It appears to me there are others of whom the same may be said. Among these, Carlyle and Thoreau are prominent. Both these writers were the friends of Emerson. He recognized and understood, perhaps more than any other, the genius of Carlyle; and of Thoreau he said, when that writer passed away from earthly sight, that America knew not how great a son she had lost.

Perhaps because of his more cheerful tone of mind, Emerson's spiritual eye saw keener and farther than that of Carlyle. He has defined the true poet with a truthful, vigorous pen in his poem, "Merlin." I shall quote a little from it, because it is my own idea of the poet's vocation, which does not consist in stringing rhymes together, but in depicting, as nearly as he can, truth. This is the charm of Lowell's poetry, Mr. Berwick's essay on which, and his selections from, I read with much interest; and this is the charm of Wordsworth's. I think both these poets answer to Emerson's description of the poet to his liking:

"A trivial harp will never please
Or fill my craving ear;
Its chords should ring as blows the breeze,
Free, peremptory, clear.
No jingling serenader's art,
No tinkle of piano strings,
Can make the wild blood start
In its mystic springs.
The kingly bard
Must smite the chords rudely and hard,
As with hammer or with mace,
That they may render back
Artful thunder which conveys
Secrets of the solar track,
Sparks of the supersolar blaze."

I still like Moore, but his songs, bright and joyous, sweet and pathetic as they are, only interest and charm; they do not satisfy. We do not catch many glimpses in them of those

"shining bars
Of light that fall from heaven's glow."

Our eyes are often dazzled by the luster of such rays in Wordsworth. His sublime ode (as Coleridge has well called it) on immortality more than any other of his poems shows what he has done toward seeing and voicing truth, though this feature characterizes most of his work. This production of his Muse alone would be enough to crown his name with imperishable poetic glory; his other poems are but stepping-stones to it. It is the focus of the most brilliant of his piercing rays of thought. No other subject has such vital interest for mankind, and the poet that conceived the idea of giving his feelings about it to the world merits the world's highest praise and admiration.

Matthew Arnold places Wordsworth as a poet after Shakespeare, Milton and Goethe, thus putting him ahead of Byron, Burns, Moore, Coleridge and many others. And the reason for this is because he deals so powerfully with life—"because he deals with that in which life really consists."

As in nearly every fine poem, some portions of the "Intimations on Immortality" excel others in subtility. How beautifully he expresses the feeling that man has, that there is something in him that is not of earth:

"Our birth is but a sleep and a forgetting;
The soul that rises with us, our life's star,
Hath had elsewhere its setting
And cometh from afar;
Not in entire forgetfulness,
And not in utter nakedness,
But *trailing clouds of glory* do we come,
From God who is our home."

I italicize the words in the line before the last, because to me they seem peculiarly exquisite. I shall not attempt to paraphrase them, nor the following. I would make but clumsy work of it:

"Earth fills her lap with treasures of her own;
Yearnings she hath in her own natural kind,
And even with something of a mother's mind,
And no unworthy aim.
The homely nurse doth all she can
To make her foster child, her inmate man,
Forget the glories he hath known,
And that imperial palace whence he came."

* * * * *

"O joy! that in our embers,
Is something that doth live;
That Nature yet remembers
What was so fugitive."

The lines I like the best in the poem are the following. Before I read them in Wordsworth I came upon them in some book and copied them, because I thought them so surpassingly beautiful. The poet's name was not given, and I did not know who the author was until I read his grand ode:

"Hence, in a season of calm weather,
Though inland far we be,
Our souls have sight of that immortal sea
Which brought us hither."

The last two lines of the poem, in the light that science is continually shedding on the meaning and connection of natural objects, are a splendid finale for so great a masterpiece:

"To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears."

Some one asked a little while back in the columns of the RURAL, "What shall we read?" There is so much to read that one feels bewildered what to recommend for perusal. We must try and read the best, at all hazards, and the poems of William Wordsworth are among the classics, and will certainly be efficacious in, as he himself hopes, helping "to make men better, wiser and happier."

YOUNG FOLKS' COLUMN.

Jeff's Fortune.

(Concluded from last week.)

[Written for the RURAL PRESS by J. W.]

October had now set in and no gold had "turned up" yet. Jeff was getting discouraged. Several miners were going further north, and he concluded to go with them. He would see more of the country and perhaps be more successful.

One afternoon, while sailing up a narrow river in a primitive looking steamboat on their way to Washington Territory, Jeff persuaded the captain to allow him to land with his gun, his intention being to shoot awhile and then, by a short cut through the woods, to reach the point where the boat made her regular landing and get on board again. Permission was granted and he went ashore.

He struck right into the forest and became so interested in shooting that he did not notice the time till it began to grow dark and there was no river in view. He looked around him in dismay. What if he should be left there? He knew there was no village nor settlement for miles, nothing save the scattered tents of hostile Indians. There was no time to be lost. His first impulse was to run in what he believed to be the direction of the river, and this he decided to do; so, shouldering his gun, he ran as fast as he could. Occasionally he caught a glimpse of the river, between the trees. This guided him as to direction, but the distance was greater than it appeared to Jeff.

Almost breathless with running and the fear of being left, he sat down in despair; but, realizing that he must act promptly or be left in the woods, he rose, rushed on and was soon gladdened by a full view of the river. He instantly fired a shot to attract the attention of the captain, and continued to do so, at intervals, as he ran. He could now see the boat nearing the bank. They had heard the signal and waited for him at the landing, and as he stepped on board he drew a long breath and said: "Safe at last!"

"If at first you don't succeed, try, try again." This advice, old as it is, if followed will insure success; and if Jeff had not possessed the determination expressed in this saying, he never would have found his fortune.

Spring found our young friend again in Nevada, fully equipped for prospecting. One sultry day in July he again turned to the mountains. Halting awhile on a rise of ground to rest his horse, his gaze was riveted on the stretch of land beneath him, as the peculiar whiteness of the ground attracted his attention. What can it be? What was it? The whole surface was covered with white foam, like a vast field of soapsuds. His curiosity was fully aroused. He had never seen anything like this before, so he proceeded to investigate. He made his way to the spot as soon as possible, and picking up a piece of this crude, whitish material, he tasted it. From experience he knew the substance contained alkali. He spent some hours in marking out, with stakes, this large area, to show that it had been "taken up, as there were many prospectors in the mountains in search of gold, silver, or anything that might prove valuable. He must secure, or "lay claim to," this tract before going further, or some one else could appropriate it to his own use.

Jeff then went to the nearest mining camp and found a man who could analyze the substance and test its value. Handing him a piece of this soft white mineral, he inquired what it was.

"Where did you get it?" asked the man.

"Never mind where I got it. Can you tell me what it is?" said Jeff.

"Well, it is the richest crude borax that I have ever handled," was the reply.

Jeff felt satisfied he had found a prize, and walked away happy in the knowledge that he had discovered, and was in full possession of, an inexhaustible "borax marsh," for such it proved to be. It was the bed of a lagoon, seven miles long and three miles wide, and the borax deposit was the result of volcanic action, which had taken place in the geologic ages.

Jeff immediately wrote home to tell the good news of his grand success, and told his brother Lawrence if he would come to Nevada he was willing to share his good fortune with him, as there was enough and to spare, if they would only devote their time and means to the business of "working the mine."

Lawrence gladly accepted the offer, and soon joined his brother. They had many difficulties to overcome. The roads were rough and long. From the nearest railroad it was 200 miles to the marsh. The hauling being done by mule-teams, it often required weeks for the journey; yet in a comparatively short time they began to realize some return for their labor and expense, and before many years they were considered among the most prosperous men of the times.

* * * * *

In Western New York, on a clear, cold evening in December of 18—, a carriage rolled rapidly along over the frozen ground and stopped before an old farmhouse. The door was opened, sending out a stream of light into the darkness, thus giving a better view of the stranger as he alighted. In the doorway stood a young girl about 16. She closely scanned the visitor as he approached, and then, with a cry of delight, she said: "O mother! it is Jeff!"

We will leave the mother to welcome her son alone. As we enter the family sitting-room, it seems but little altered since we last saw it. The cheerful fire still burns upon the hearth. The change is in the occupants. Jefferson Easton, as he now appears, tall, brown and bearded, could scarcely be recognized as the sad-faced youth who sat upon his trunk in the corner during our last visit.

His mother's hair is streaked with silver, and her once happy countenance seems marked with sorrow which is visible even through her joy at the return of her son.

"Tot," no longer a child, feels her importance as a young lady as she listens with deep interest to her brother's recital of his travels.

The vacant chair at the fireside explains the cloud that marred their happiness. The father's face was missing. Only one month before Jeff's return, his father had been suddenly stricken with paralysis, and, after one week of unconscious suffering, had passed away. After this explanation by his mother, a short silence ensued, during which the thoughts of each were with the absent one.

Jeff left the room, but soon returned, and handing his mother a carpet-bag, said: "Mother, I have obeyed your last injunction to me as I left home. I have brought you back your carpet-bag. Does it look natural? Open it!"

Nervously she did so. Taking out a package, she read, "For mother," and on opening it found a gold watch and chain. Another was marked "For Tot," and she displayed a handsome set of jewelry. A larger roll contained a silk dress for each. With a grateful heart and beaming face, she kissed her son through her tears.

Jeff could not remain long at home, as business required his attention in Nevada; but he went joyfully forth to his new home, taking with him his mother and sister, to show them that his boyhood's dream had been realized. And there we will leave them, enjoying Jeff's fortune.

DOMESTIC ECONOMY.

ORANGE CAKE.—One-half cup of butter; stir to a cream; then gradually add two cups of powdered sugar. Beat separately the yolks and whites of five eggs, reserving the whites of two for the frosting. Stir the yolks with the butter and sugar, and then add the grated rind of an orange and all the juice except one tablespoonful, and one-half a cup of cold water. Mix two teaspoonfuls of baking powder with 2½ cups of flour and sift twice. Stir the flour in gradually and beat well; then add the whites of the eggs, beaten to a stiff froth. Bake in layers. Use the whites of the two eggs and the spoonful of orange juice reserved from the cake to make a frosting to put between and on top of the cake. It will require about two small cups of powdered sugar.

CHICKEN CROQUETTES.—One can of boned chicken, one cup of mashed potatoes, one-half cup of drawn butter. Chop the chicken very fine and season with salt and pepper. Beat two eggs very light, and when the drawn butter is boiling hot, pour it upon the eggs; then stir in the chicken and set the mixture away to cool. Make into shapes, not too thick; brush them over with egg; roll in fine cracker crumbs, and fry in a wire basket in hot fat. Cracker dust can be purchased in pound packages, and is a great convenience, beside being more evenly powdered than that which is rolled at home.

CUP PUDDING.—Make a batter as if for waffles. To one pint of milk allow two eggs and enough flour to thicken. One teaspoonful of baking powder should be stirred into the flour. Fill a sufficient number of teacups with this and with fruit if you wish, currants and raisins in layers. Then set the cups in a steamer and let the water boil underneath for a full hour; serve while hot with a sugar and butter sauce or cream. Jam or chopped apples can be used in place of currants and raisins.

WHITE GRAVY FOR FISH.—Put into a pint of boiling water, or the water the fish has been boiled in, a small bunch of savory herbs, a little piece of lemon rind, four cloves, four peppercorns and a little salt, letting them come to a simmer, and then strain; stir into the liquid a tablespoonful of flour, with two ounces of the best butter, mixed smoothly together. Let it boil five minutes. Chop a hard-boiled egg and put in tureen with the gravy.

FIG PUDDING.—Six ounces of fresh grated breadcrumbs, six ounces of suet chopped fine, five ounces of sugar, one-half a pound of figs chopped fine, one cup of sweet milk, one-half glass of brandy, one-half a nutmeg, one-half a teaspoonful of soda, one teaspoonful of cream tartar and three eggs. Steam three hours and serve with wine sauce.

FRUIT SNAPS.—One and a half cupfuls of sugar, one of butter, one-half cupful of molasses, three eggs, one teaspoonful of soda, one cupful of raisins, one of currants, one tablespoonful of ginger, one of cloves, one of cinnamon, one of allspice, sufficient flour to roll out as soft as can be cut. These will keep several months.

GOOD HEALTH.

How to Keep off Rheumatism.

A writer in the Boston *Herald* avers that nearly every person inclined to rheumatism, but as yet free from chronic changes in the joints and muscles, can, by proper conduct, entirely overcome the defect and never experience a recurrence of the disease.

A subject to rheumatism should secure a healthy habitation, located on rising ground, perfectly drained, in pure air, and accessible to sunlight. Perfect ventilation is at all times essential, and the means of heating should be sufficient to permit it.

To promote a healthy action of the skin is of infinite importance, and for this purpose Turkish baths are advised. When judiciously used they are not only powerfully preventive, but are curative of rheumatism. How often to take them each person must decide for himself, influenced by their effect upon him. In exceptional cases they may be indulged in daily for a time, but as a rule once or twice a week is sufficient.

Every morning on rising the subject should take a cold sponge bath, after which he should be rubbed down with coarse towels until his skin is in a glow. This will not only keep it in good tone, and the pores properly opened, but it will invigorate the entire system, nervous as well as circulatory, and will also render him less liable to take cold.

Certain dietetic restrictions are imperative. Fries and stews are forbidden; the same may be said of salads and all articles of food rich in fats. Pastry is also interdicted; in fact, nothing should be eaten which is in any degree burdensome to the digestive organs. Subjects to rheumatism are, as a rule, inclined to be bilious and suffer from indigestion; to guard against these disorders, the food should be of the simplest character, concentrated, and yet nutritious. If one does not feel the denial of tea and coffee too great a hardship, he should dispense with them, and drink, instead, for breakfast, milk or cocoa—that is, if they are well borne. At that meal toast or coarse bread, such as brown bread, is to be preferred, and butter may be used, but not too generously. Oatmeal may very properly be the first dish partaken of. Eggs act differently on different people; for those who bear them well they are indicated, either poached, dropped or lightly boiled. Easily digested fish may be included in the first meal. Bacon is the least exceptionable of all salted meats, and its occasional use can do no harm; what fresh meat is eaten daily should be taken at the midday meal. Long fasting is injurious for all predisposed to rheumatism. It is therefore advised that dinner be taken between 12 and 1 o'clock. If hunger is felt during the afternoon, a cracker and a glass of plain soda, Star or other mildly alkaline waters will satisfy its cravings. It is important to remember that the daily quantity of meat needed by a person in health, who lives on a mixed diet, is three-quarters of a pound; those inclined to rheumatism should never indulge more liberally. At dinner it will be well to forego soup, as it is apt to "sour on the stomach." Within the limits stated meats may be taken, and preference is to be given to those which are easy of digestion. If one loves fish, he might well make it the principal dinner dish. In selecting vegetables, again digestion is to be considered, and only those which are well borne on the stomach are to be indulged. Lemonade for dinner is a pleasing drink; all malt or alcoholic liquors are forbidden. Instead of pastry, boiled rice, bread, tapioca or other puddings equally as light, may be partaken of, and a small quantity of fruit is acceptable. Nuts and cheese cannot be allowed. If a person who enters upon this dietetic regimen feels faint and the need of food late in the afternoon, he will find a biscuit and a glass of Apollinaris or Star water sufficient. As is the usual custom in this country, supper between 6 and 7 o'clock is the proper time. It should be light—berries and milk in summer and a few raw oysters in the colder months. Those who are wedded to tea may take one cupful, if weak, but cocoa would be better. Toast, rusks or light biscuits and a little fruit can be indulged in to satisfy any reasonable appetite. Cakes and sauces should not enter the diet. Eat slowly and masticate all food well. If hungry at bedtime, a glass of milk will be all that is needed.

It is possible only to barely outline the dietetic treatment which a subject to rheumatism should pursue. The rule should be to carefully avoid all substances which are at all likely to cause indigestion, as that is a potent contributing cause of rheumatic affections, and also to exclude from diet both food and drinks which are likely to cause an excess in the blood of that acid constituent which is notably increased in rheumatism. No less important than the dietetic restrictions is sufficient daily exercise in the open air. Unless it is taken, one susceptible to the disease cannot long escape it. A walk of nine miles each day, or muscular effort equivalent to it, is imperatively demanded. Let the subject live as any sensible man knows he ought to live, and there is but little danger of his suffering from an attack of rheumatism.

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See Advertising Columns.

The Week.

The rains continue in the valleys; on the mountains and in the extreme north the snows are still falling. It is turning out to be rather a heavy winter, even if it was so late in beginning. During the last week there have been some matchless days, and followed as they are now by warm showers, vegetation will make rapid progress. Our reports from snowless districts are generally favorable in regard to the growth of grass and grain, and there is little complaint so far of too forward fruit trees. In the live-stock counties of the north there has been some hardship and loss because of the hard storms and heavy snow, and those farmers have been happiest who had most hay in stack or barn. Our losses and discomforts have been slight indeed, compared with the disasters upon the great interior plains of the continent. Generally speaking, the disposition of the people is cheerful and hopeful; the throngs of Eastern people are charmed with the more recent weather, and investment in California city and country property is brisk.

Congress and the California Legislature are both in their death throes. This week will finish Congress unless the President calls an extra session, and the California legislators will fly homeward unless they desire to enjoy Sacramento society at their own expense. Congress has taken some very important action this winter, and the California Legislature, though much it has been scolded, has done some good things. It needs the rest of the week, however, to complete its record for good or ill.

Agricultural Experiment Stations.

The outlook for the progress of experimental work in agriculture in California is most gratifying. In his report to the Board of Regents of the State University on Tuesday of this week, President Holden, alluding to the new permanent fund as just provided by the Legislature, said in substance:

It appears to me that the direction in which the University should expand is the very one in which its efforts will be most appreciated by the people at large. The University should be an intelligent leader of the people of the whole State in enabling them to take possession of their inheritance. It should conduct various economic surveys in agriculture, in viticulture, in biology, in mining, in topography, etc., and constitute itself a central bureau where any citizen can obtain a professional and expert opinion free of all charge, upon any subject of public interest, and not strictly of a private nature. The Department of Agriculture has fully performed its duties in this respect in the past, and will continue to do so in the future, but I can see many ways in which the other technical colleges and departments may make themselves not only useful but indispensable in the development of the State with the new means now made available for this purpose. The newly provided income will make this service not only possible, but an imperative duty. It is for the Board of Regents to devise ways and plans for this new expansion.

In his memoranda of the needs of the several departments of the University, submitted by President Holden, it appears that he advises that "the Lick Observatory receive some $20,000, the Agricultural department some $24,000, and generally that increases should be made in the more practical departments, leaving the departments of the College of Letters to be supported by the general fund." This position of President Holden will be noted with great pleasure by the friends of industrial education, as surety that the new funds are to be faithfully devoted in good measure to the kind of the work the people most desire, and it was on the expectation of such expenditure of the money that the project for the permanent endowment of the institution won such general support. It would have been altogether impossible to have secured the endowment had not the University thoroughly commended itself to our industrial classes by its work during the last decade.

The directions in which the increased University funds will be used will be several. The force for instruction and experimentation in various agricultural branches at Berkeley will be increased and better facilities for the work will be provided. It seems now possible to localize the experimental work at various points in the State, as Prof. Hilgard has always desired to do. The new funds to help out at the central station in Berkeley, supplemented by the money to be derived from the United States (through the Hatch Experiment Station bill which seems to have finally passed both houses of Congress), will enable the Regents to establish a number of local experiment stations in various parts of the State, so as to conduct experiments under the diverse local conditions prevailing. It will not be possible, of course, to establish many at first, but possibly the number can be added to each year. We notice that President Holden in his report to the Regents says:

Prof. Hilgard agrees that at least three stations will be necessary. The grounds for each need not be greater than 10 acres, and suitable ground will be given, no doubt, by private property-owners. There should be stations, it is thought, near Tulare, near Los Angeles, near Vina, Tehama county, and at Mount Hamilton. Each station will cost about $4000 the first year. There should be viticultural stations at Cupertino, Mission San Jose, Fresno, Vina, and somewhere in the foothills.

Of course other important districts will also be considered. One reason the places named were selected, perhaps, is that enterprising citizens in those parts have already offered to cooperate with the University in establishing such stations. If this is done and local property-owners and public-spirited citizens will come forward with donations of land and subscription of funds for part of the support, the number of stations can be largely increased, as it is every way desirable that it should be. Some months ago we mentioned the Tulare district as one of the most enterprising and progressive in the State, and also as a region where very novel, important and interesting conditions had been observed to govern agricultural practice. It is very desirable that Tulare should pursue this idea of co-operating with the University for a local establishment in their district. We understand that citizens who have been spoken to about it are quite favorably disposed, and it is believed that a sufficient interest can be aroused to secure the early establishment there of such a station. We also presume the proper encouragement would be made in the other places mentioned in Prof. Hilgard's recommendation, and in other places which have not yet been mentioned in this connection. We commend the subject to the attention of our readers and to local agricultural societies. Of course, selections of locations will have to be made on the ground of the widest practical value of the data which can be secured by experiment, but between places of equal standing in this regard, a choice may often rest upon the financial and moral support which enterprising citizens may bring to the undertaking. As we remarked at the outset, everything seems now very favorable for most active and valuable work in agricultural experimentation and investigation in this State.

Our Illustrations.

The photographotypes in this issue of the RURAL PRESS we think will prove pleasing to our readers, far and near, as they represent the exhibits in the San Jose Citrus Fair with exactness and with greater truthfulness than such views could be obtained in any other way. This is especially favorable to those abroad, who can rely upon the fact that the pictures are not the fancy of any artist, but the reflected light of "Old Sol." Therefore the views cannot be considered as exaggerations made to order for booming purposes. We regret not being able to give illustrations of some other exhibits deserving of great credit. The exhibit of oranges from Knight's Ferry, Stanislaus county, and by the Catholic Fathers, from Saratoga, Santa Clara county, were among the best exhibits which our engravers have not portrayed. More views, however, may be given in our future issues. The stormy weather has somewhat interfered with the prompt appearance of these engravings. Our engraving facilities will be constantly improved, so that greater benefits will soon inure, we trust, to a wider range of our readers in the course of time. Views taken in the interior of a building are among the most difficult of all for photograving, but we think those familiar with the late fair will recognize agreeably the views our enterprise has fortunately been able to present to them, and through our extra large circulation to the public.

Forestry.

The bill to enlarge the powers of the State Board of Forestry, and to provide funds for its work, passed the Assembly on Tuesday and is now awaiting the Governor's signature. On another page of this issue may be found a forcible article by Abbot Kinney, chairman of the State Board, urging the importance of the forestry work to California. We are glad the Legislature has acted so promptly and thus given us the chance to announce the final passage of the bill in the same paper that presents such cogent reasons for its enactment. It shows the advantage of writing for such an influential journal as the RURAL PRESS. As the bill has passed, Mr. Kinney's article may serve another purpose, to wit, to strengthen popular sentiment in favor of the enforcement of the law when it becomes operative. There will be need of considerable popular preaching before all the people are fully informed upon this matter.

As we understand it, the bill for making Washington's Birthday "Arbor Day" for California is still before the Legislature. We trust it will be passed, even though the remaining life of the Legislature be short. The idea should commend itself to every one.

The Legislature.

Wednesday was the 59th day of the session. The Telegraph Hill Damage bill that proposes to pay $97,000 for damages done by the seawall contractors came up in the House Tuesday as a special order, and was defeated as it should be. It is clear on the face of it that if any damages have been done the contractors alone are responsible, as they took the contract agreeing to furnish the material. Tuesday Governor Bartlett sent a message to the Senate announcing that he had made the following appointments of trustees for the Home for the Care and Training of Feeble-Minded Children: Mrs. Kate B. Lathrop, of San Francisco, Abram Block, of Santa Clara, and Mrs. Julia M. Judah, of San Mateo.

The Tax Levy bill for the thirty-ninth and fortieth fiscal years, which was introduced in the Senate Tuesday, provides for the State Board of Equalization to fix an ad valorem rate of taxation upon each $100 in value of taxable property of the State, after allowing 12 per cent for delinquencies in and cost of collection of taxes for the thirty-ninth fiscal year, for the general fund $2,500,000; schools, $1,800,000; interest and sinking fund, $250,000; for the fortieth fiscal year, for the general fund $2,312,000; schools, $1,800,000; interest and sinking fund, $250,000—a total of $8,962,000.

The Act to establish an industrial home of mechanical trades for the adult blind of California, creating a Board of Directors for the management thereof, and appropriating $65,000, was Tuesday in the House ordered to a third reading. The Brooks Pilot bill has been hung on the tenter-hooks of the Senate Committee on Commerce and Navigation to die. The wobbling on this bill in both Houses has been peculiar. Can it be that a powerful loadstone has been concealed about the capital?

A bill amending Section 2995 of the Civil Code has also been approved. It provides that mortgages may be made upon—

First—Locomotives, engines and other stock of a railroad.
Second—Steamboat machinery, the machinery used by machinists, foundrymen and mechanics.
Third—Steam engines and boilers.
Fourth—Mining machinery.
Fifth—Printing presses and material.
Sixth—Professional libraries.
Seventh—Instruments of surveyors, physicians or dentists.
Eighth—Upholstery and furniture used in hotels, lodging or boarding houses, when mortgaged to secure the purchase-money of the articles mortgaged.
Ninth—Growing crops.
Tenth—Vessels of more than five tons burden.
Eleventh—Instruments, negatives, furniture and fixtures of a photograph gallery.
Twelfth—The machinery [casks], pipes [tubes] and utensils used in the manufacture or storage of wine, fruit, brandy, fruit, [syrups] or sugar [also wine, fruit, brandy, fruit syrups or sugar], with the cooperage in which the same is contained.
Thirteenth—Pianos and organs.

The bill appropriating $10,000 for the erection of a cottage at the Veterans' Home has been approved by the Governor, and also for the support of aged persons in indigent circumstances at that institution, appropriating $150 per year each.

The bill appropriating $250,000 for the erection of additional buildings for the patients of the California Hospital for the Chronic Insane, one-half to be used during the 39th fiscal year and one-half during the 40th fiscal year, and the bill to protect the manufacturing industries of the State, are also before the Governor. The latter provides that all goods manufactured in whole or in part in this State shall be stamped with the name of the manufacturer and the place where they are manufactured; and the Abbott-Wright Irrigation bill, providing for the formation of irrigation districts and prescribing the manner in which they shall be governed, are all before the Governor awaiting his approval.

Thirty-Two Page Extra.

Our 32-page extra of the San Jose Citrus Fair will be completed and mailed in a few days to a large number of representative farmers in the East, in the Santa Clara valley, in other parts of this State and the Pacific Coast. This extra will be made up in part of the matter that has already appeared in the RURAL concerning the Citrus Fair; also, additional matter not already inserted in our regular issues, which will appear in our columns hereafter.

San Jose.

One of the liveliest sketches in the vivacious writings of Bayard Taylor is a description of the valley of Santa Clara, which this great traveler declared to be one of three loveliest valleys of the world. Thridded by the Coyote and Guadalupe rivers, whose course was marked by the white trunks of the sycamores, gleaming like silver through the glossy foliage; the park-like groves of live-oaks that would have delighted the soul of an ancient Druid; the Santa Cruz mountains on the west, nearly 4000 feet in hight, covered with pine and redwood forests, upon which the golden setting sun dashed its most gorgeous ray-brush; the Coast Range hills on the east, where the full glory of the rising sun was displayed in rose color softly touched with violet, and overhead the blue, matchless luster of the sky, all combined to make a picture so new and dazzling that this great magician of words exclaimed: "Here the great artist seems to have taken a new palette, and painted his creation with lines unknown elsewhere." Near the heart of this lovely valley, like a charming picture in a charming frame, is situated the Garden City of California. It is about 80 feet above the level of the sea, and, including its eastern and western suburbs, has a population of 22,000 souls.

San Jose possesses many historical attractions. The town was laid out about the beginning of the century, and the ruins of some of the old adobe houses built before the American conquest may still be seen. The Mission of Santa Clara was founded by the Catholic Padres in 1677. The first California Legislature assembled here on the 25th of December, 1849. The city was incorporated in 1857, and in 1865 there was no municipal debt and it has been out of debt ever since. It is generally conceded that San Jose is the handsomest city in the State. The streets are broad, well laid out, and generally lined with shade trees. The buildings are elegant and the ample gardens and yards filled with every variety of beautiful ornamental trees and shrubs, fruit trees, and flowers. The drainage is excellent. The fire alarm and telephone system are of the best. The courthouse is of Roman-Corinthian style of architecture, and with the jail cost a quarter of a million dollars. San Jose is lighted with a six 4000 candle power electric light, placed upon an iron tower, 200 feet high, erected over two intersecting streets in the heart of the city. In addition there are several single lights on masts in various other parts of the city. San Jose has long been noted for its superior educational facilities. The public school buildings are numerous, convenient, and admirably arranged; the course of study and corps of teachers the equal of the best anywhere. The College of Notre Dame, Santa Clara College, and the University of the Pacific, are all amply equipped for conducting students along the higher ranges of education. The church buildings, as a rule, are handsome, well appointed and replete with every convenience promotive of the comfort and devotion of church-goers. There are five Masonic bodies, one Red Men's Lodge, six Odd Fellow Lodges, two A. O. U. W., one Chosen Friends, one Red Cross Lodge, two Knights of Pythias, one Legion of Honor, two Native Sons of the Golden West, two Patriotic Order Sons of America, one U. A. O. D., one A. O. H., one Knights of Honor, one Knights of Labor, two Good Templars, one Order of Herrman Sohne, two medical societies, two Posts Grand Army of the Republic, two Woman's Relief Corps, and one Ladies' Loyal League—the latter being the first instituted in California. There are four banks, half a dozen fine hotels, a free library of some 5000 volumes. San Jose is just now enjoying quite a boom of prosperity, property has appreciated, buildings are going up in every direction, and one of the latest enterprises is the erection of a palatial hotel, and it is reported that the elegant residence property of Captain Maddox, on North First street, has been bonded for $50,000 as the site.

San Jose is the center of attractions. The whole country is almost one vast orchard. Artesian wells are numerous and of great value. One of the most charming features is the magnificent drive to Santa Clara, known as the Alameda, a leafy lane of willows and sycamores for three miles. As the trees stand close together and are of a large size, they form a dense and continuous arch of shade. Between the rows of the trees runs a horse railroad, and a turnpike that most every afternoon is crowded with gay turnouts and people in the finest equipage. The whole way is bordered with neat and elegant homes embowered in vines, fragrant shrubs and flowers. Another favorite drive is on the Santa Clara avenue, a smooth pike to Alum Rock Springs, in a mountain canyon seven miles away. The spring and little plat on which the hotel stands belong to the city and is part of a reservation for a park of about 400 acres, wild and picturesque in the extreme. This is the favorite picnic ground, and it would do one's soul good, as it has ours, to see the average San Josean eat cold ham, chicken, hard-boiled eggs, etc., and loll away the afternoon, spinning yarns and cracking jokes, while the young people, under the thin pretext of gathering ferns or sipping sulphur water, strolled away into the woods. Twelve miles west of San Jose, and near the village of Saratoga, is the Pacific Congress Spring, so called on account of the resemblance of the waters to the famous spring of Saratoga, N. Y. It is a picturesque spot and a popular resort all seasons of the year. Twelve miles southwest from San Jose is another picturesque canyon, the location of the famous quicksilver mine of New Almaden, second only in importance to its namesake in old Spain. The road is level and the drive delightful. The most important, perhaps, of all the attractions of San Jose is the Lick Observatory on the summit of Mount Hamilton, 26 miles distant on the eastern range of mountains. The road is of easy grade, finely constructed, and the scenery for beauty and variety is unsurpassed. It is a beautiful drive no stranger can afford to neglect. But space would fail to do full justice to all the notable features of this city, and we can truly say that in healthfulness, salubrity, the intelligence of its population, its wealth of trees, flowers and shrubbery, fine drives and varied scenery, the numerous pleasure and medical resorts, schools and church privileges, San Jose stands in the front rank of California's list of popular cities.



E. BORGUIGNON'S FLORAL MONUMENT AT THE SAN JOSE FAIR.

THE COLONY AT TOPOLOBAMPO.—We are sorry to have so disheartening news to chronicle as is telegraphed this week, from Benson and Nogales, regarding the Sinaloa colonists. Straggers, returning northward in small parties, claim to have been greatly deceived and assert that the locality where the immigrants were located is simply a barren waste. The water was very impure and had to be brought 90 miles on the backs of burros. Most of the settlers were families with small means, having barely money enough to reach the promised paradise. They were, therefore, in close quarters on their arrival, and found no means of subsistence. One of the deserters said: "It is all right for us who have no family; but what can be the feelings of a man who has a wife and four or five children and no money to return or means of sustaining them in the colony? And there are plenty such there." Worse yet, smallpox has broken out among them—about 60 cases being reported, and six deaths. Quite a number of the fugitives are at Guaymas, not having funds to get out of Mexico. The last lot of immigrants are reported to be making arrangements to return to the North and East.

A MERCED FARMER has poisoned over 20,000 jack rabbits in the last four years.

Floral Decorations.

We doubt whether fairs in other States and countries are so rich in floral decorations as those of California. There are, of course, floral exhibitions in other parts of the world where the professional florists vie with each other and produce marvels of beauty, but we refer to the fairs as a rule—fairs of general character. Such exhibitions are often deficient in their floral departments, but in certain parts of California one can always count upon a grand collection of cut flowers and potted plants, whenever the pavilions are open for entries. San Jose is thus to be depended upon. The district is splendidly adapted to the triumphs of the floriculturists, and this natural endowment is made good use of by the flower-growers. Our correspondent's letters have shown that the recent Citrus Fair was specially fine in its floral features, and we are sorry that we cannot show all the worthy displays. The engraving on this page shows one of the leading pieces of flower-work, as prepared by E. Bourguignon, florist of San Jose. The picture can, of course, give but a faint suggestion of the beauty of the arrangement or of the materials used in it. The design is a floral monument standing over five feet. With perhaps a pardonable local pride a resident of San Jose interpreted the floral language as follows:

The front of the cubical base is studded with the choicest of flowers, and is intended as an emblem of Central California. The other three sides, trimmed with common flowers and coleus leaves, and presenting a less attractive appearance, represent the other portions of the State. Above the base is a globe completely environed with rare gems of the floral kingdom, typifying Santa Clara county. At the top of the monument, spreading at an angle of 75 degrees, a fan, arrayed in the most exquisite specimens from the hot-house, symbolizes the city of San Jose. Upon each division of the monument the initials of the part of the State represented are deftly wrought in flowers.

Of course one has the right to use flowers to please individual tastes and to give them such significance as suits. If the significance does not please all tastes and all interests, one has only to admire the flowers which bloom for all, and interpret the arrangement according to his own predilections.

The floral monument shown in the engraving was only a single feature of Mr. Bourguignon's floral display, which was varied and comprehensive and won him good opinion for his floricultural skill and enterprise.

BIG WATER AND LAND COMPANIES.—The San Jacinto *Register* says that articles of incorporation have been filed in the county clerk's office at San Diego by the Lake Hemet Water Company and the Lake Hemet Land Company. The capital of the former company is $2,000,000, divided into 100,000 shares of $20 each. All the stock has been subscribed. The principal place of business is Los Angeles, but the money will be expended and the works located in the San Jacinto valley. All the stockholders, with one exception, reside in Los Angeles. It is proposed to impound the water of the San Jacinto river in the mountains in a large reservoir and store a two-years' supply. Water will also be furnished to dwellers on the mesa lands. Some 25,000 acres of land will be irrigated by this means. The same gentlemen are the incorporators of the Lake Hemet Land Company, which has a capital of $1,000,000.

A COMMERCIAL INTELLIGENCE COMPANY.—Articles of incorporation were filed last week by the American Foreign Markets Association. The objects are to gather information regarding commercial and mercantile matters from all parts of the world, and to distribute the same for the use of its members. The directors are W. L. Merry, Columbus Waterhouse, Andrew Crawford, J. M. Knowles, Joseph Elfelt, A. D. Sharon, John Partridge, C. F. Richard, O. C. Stouder, of S. F., A. C. A. Parkes, of Portland, Or., and W. E. Sharon, of Virginia City, Nev. The capital stock is $600,000, divided into 1200 shares of $500 each.

FORESTRY.

Our Duty in Forest Preservation.

EDITORS PRESS:—There are certain laws of nature applicable to the individual that are universally recognized. If a man jump or fall from a housetop or from a hight, he will come to the ground with a force proportionate to the distance he falls. It is only a question of hight as to the certainty of death.

If a man remains under water more than a few minutes, he will be suffocated and die. The laws of nature pervade all life, but none of them are as clearly recognized and observed as those bearing on the immediate welfare of the individual. One of the laws of nature only commencing to be recognized in America is that the capacity of the earth to support mankind is dependent on the maintenance of a certain proportion of it in forest.

This proportion varies with local conditions, topography, etc. The penalty of violating this law is as certain as that of violating any other law of nature. The climate changes; the variations of temperature become more sudden and extreme, the winds more violent, the water supply becomes at one moment excessive and destructive, at the next totally lacking.

The earlier civilization of man did not recognize this law, and, as a consequence, the scenes of its former activity are now deserts. Syria, Persia, Palestine and many parts of the south of Europe are now desolate, with only here and there an oasis.

These countries, once so busy and populous, now sustain only a scant and miserable population.

The ruins of Babylon, Baalbec, Palmyra and Carthage are now invaded by the sands of the desert. As man progressed and recognized more and more cause and effect, he perceived this law of nature.

The European governments have one after another adopted a system of forest preservation, until now all of them recognize forestry as one of the most important departments of Government.

These forest departments have turned out to be sources of revenue instead of sources of expense. The net returns of the entire forest preserves in Alsace and Saxony are nearly four dollars a year per acre.

Thus, while the integrity of the forests is maintained, the full enjoyment and use of its products is guaranteed to the people.

The last report of the Board of Forestry shows that we do not have to go to foreign countries to see the disastrous results of forest destruction. We have only to go into the Tejunga and Soledad canyons to see the extraordinary power acquired by the water rushing from their burnt and denuded mountain-sides.

Brush, trees and even grass have a great retarding upon falling rain. Each branch, twig, stem and root, together with the fallen leaves and humus of the forest, offers innumerable impediments to the flow of water.

Thus the water has an opportunity to sink into the ground and replenish the streams.

It is certain that rains falling on a wooded watershed can neither evaporate nor flow off so rapidly as upon one that is bare. Thus, if one billion cubic feet of water fall upon a wooded watershed and 24 hours be required for the surplus water to flow off, it would take about two hours for the same waters to flow off a bare watershed. Consequently 12 times as much water would pass a given point at any time during its delivery upon the drainage outlet of a bare watershed as could pass from a wooded one.

Applying this to the springs in the Tejunga, Soledad, and Los Angeles valleys, it will be at once seen that destructive results must follow a complete denudation of these watersheds.

In the San Gabriel valley even the legitimate clearing of the foothills has given rise to numerous torrents which can be seen by any one driving through it.

In the St. Phalaz valley, in France, this fact has received a complete demonstration.

There two watersheds exist of almost exactly the same area. One of them is wooded, and the other not. When the rain falls in this district there flows from the bare watershed a large and muddy torrent which always does more or less damage. From the wooded watershed a stream flows that increases very little, does no damage, and persists long after the muddy torrent has entirely disappeared.

There is probably no country and no climate where the effects of forest denudation will be so promptly manifested as in California.

We have a long dry season followed by a rainy one, and no part of the State is far distant from steep, high ranges of mountains. The debris in the Sacramento valley from the mining interest covers about 50,000 acres of valley land. But in the single valley of the Durance in Southern France over 150,000 acres of the richest lands in Provence have been covered by sand and bowlders from the once-wooded but now barren mountains of its watershed. Mining debris is nothing to what must come if our mountains continue to be denuded of their verdure.

The people of California, and especially of Southern California, cannot afford to see the burning, waste and destruction of the forests and brush on our mountains.

We cannot afford to see our springs diminished or our valley lands turned into the beds of torrents. Measures for protection are of vital importance.

The measures suggested by the State Board of Forestry are: The creation of a forestry police to put out and prevent fires, and to protect the forests generally; the withdrawal from sale by the General Government and the State of all timber and brush lands unsuited to agriculture, and the placing of such lands under the guardianship and control of proper officers. The duty of these officers will be similar to those of European foresters.

They would sell the ripe timber and firewood for the benefit of the Government, maintain the reproductive power of the forests, and thus preserve the mountain watersheds permanently in verdure, while utilizing to the best advantage the products of the forests.

The present system of the Government in dealing with timber land is entirely unsuited to the lumber industry. It invites fraud, perjury and waste.

The State Board unearthed 600 cases of fraudulent land entries in the interest of one foreign corporation in the county of Mendocino, and these practices, together with open robbery, are notoriously common on the Government timber lands.

The State school lands are also treated even worse. Until the State Board took hold of the matter there seemed to be no protection for them at all. The whole present system is bad, We sincerely hope that the bill introduced in Congress by Col. Markham, at the suggestion of the Board of Forestry, will pass. This bill will create the system just outlined.

The beauty and grandeur of the forests of California is something to be proud of. They attract to us many visitors and colonists. But they have a utility far beyond any esthetic considerations—and the welfare of the people of the State demands their preservation.

All persons interested in maintaining the taxpaying and productive power of the southern counties should read the recently published report of the State Board of Forestry.

The bills now before the Legislature provide for the support of the Board of Forestry, and will allow it to continue its good work. The scientific forest survey and forest map of the State can be completed, the distribution of seeds and plants can go on and tree planting be encouraged. An Arbor Day will be provided for. These bills should pass.

San Gabriel, Cal. ABBOT KINNEY.

STOCK SHOW AT LIVERMORE.—A stock and stallion exhibition for Alameda, Contra Costa and San Joaquin counties is to be held at Livermore Saturday, March 12th. As this is the first annual show at which cattle, as well as stallions, are provided for, a large increase in the number of entries is expected.

Hon. C. W. Breyfogle.

Dr. Charles Wesley Breyfogle, the present mayor of San Jose, was born in Columbus, Ohio, June 7, 1841. He graduated from the public High school in 1859, and from the Ohio Wesleyan University in 1862, receiving, three years later, the degree of A. M.

He entered the army as First Lieutenant of Co. E, 9th Ohio Volunteer Cavalry, and having been promoted to the captaincy of his company, was honorably discharged on a surgeon's certificate, after a service of 14 months.

Twenty-three months' arduous study of the law in the office of Judge Rankin, of Columbus, O., caused Capt. Breyfogle to become blind. Rest and treatment, however, effected a cure.

His own need of medical assistance led him to become deeply interested in the study of medicine, which, indeed, had always been his preference, although his father preferred law—and he decided to enter the medical profession.

Having graduated from Hahneman Medical College, at Philadelphia, in 1866, he commenced his career as a physician at Louisville, Ky., and continued there till 1872, when failing health caused his removal to San Jose, where he has practiced since.

Dr. Breyfogle's social nature is seen in his connection with many of the leading Orders, of which he is an honored member.

In the G. A. R. he has risen to the dignity of Past Senior Vice-Commander, and in the Knights of Honor he is a Past Dictator. He stands high in the Masonic fraternity, being Past Eminent Commander of San Jose Commandery, No. 10, Knights Templar. In the I. O. O. F. he has filled several important positions. He is a Past Grand in the Subordinate Lodge and a Past Chief Patriarch in the Encampment. Over a year ago, when the military branch of the Order was reorganized, under the name of Patriarchs Militant, Dr. Breyfogle was made Brigadier-General for the Department of the Pacific. He is president of the Odd Fellows' Hall Association of San Jose; president of the San Jose Building and Loan Association, which, beside assisting many of its stockholders in the purchase of homes, has declared large dividends. He has recently been elected president of a new organization known as the Garden City Savings Union, which is an institution of much the same character as the last-mentioned.

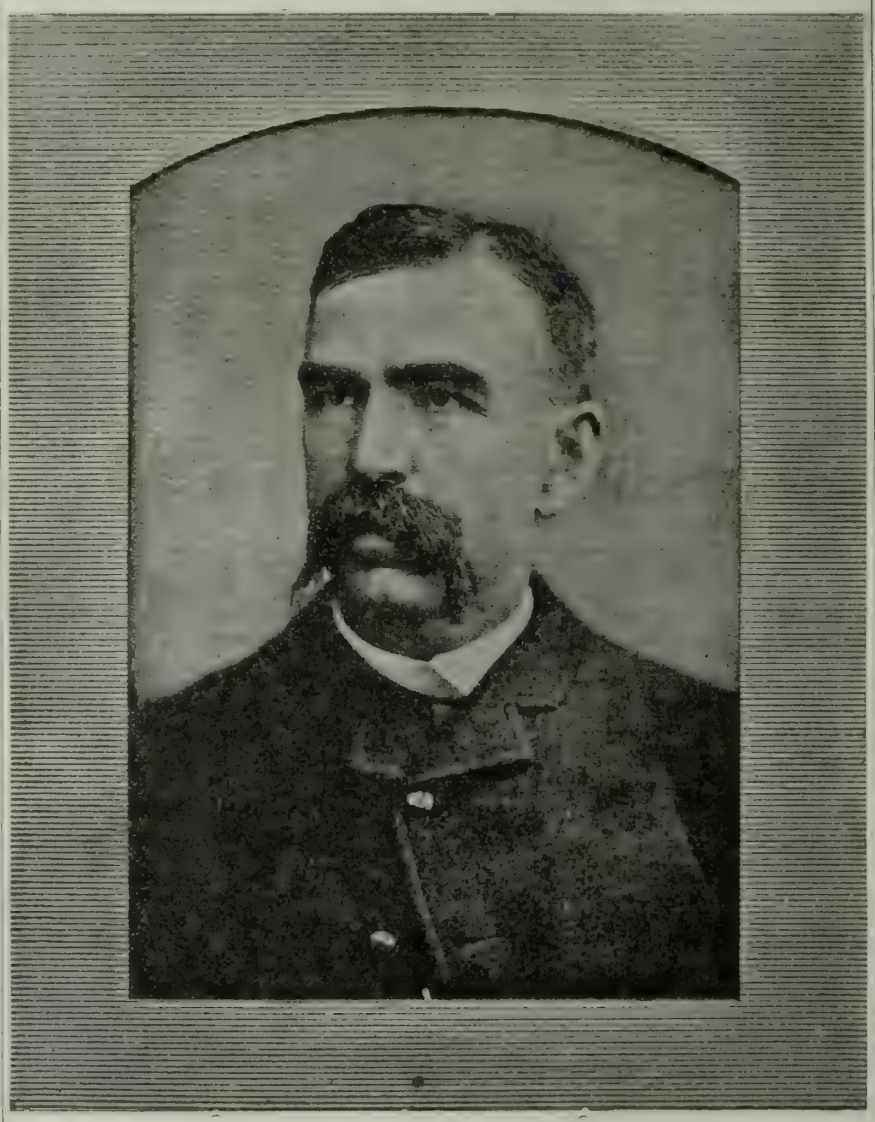
For many years he has been an elder in the Presbyterian church, and in 1876 was a representative to the Brooklyn General Assembly. From 1880 to 1882, he was a member of the San Jose Board of Education, and left his impress upon the department in the introduction of vigorous measures for the improvement of the schools, which were raised to a higher proficiency than they had ever before enjoyed.

Though Dr. Breyfogle is a man whose opinion on political questions meets with profound respect among politicians, he is not a politician. His nomination for the mayoralty, by the Republicans, was one of those rare instances wherein the office seeks the man. Being of a retiring disposition, he might have remained in private life had not some one, unsolicited by him, suggested his candidacy, and had not a general conviction prevailed as to his fitness for the office.

His election in 1886 has been followed by an administration prudently and economically conducted, and marked by considerable public improvement. Some leading members of the opposite party would not, if they could, reverse the popular verdict. Having advanced ideas on matters of public policy, being a firm believer in the doctrines of the moral law, a man of strict integrity, and faithful to public trusts, Mr. Breyfogle is a most worthy and efficient mayor. He is an enthusiast in any good cause, and an incessant worker. He possesses shrewd financial ability, every enterprise that has felt the magical touch of his guiding hand having proved eminently successful. His private affairs have been managed equally well, and he has acquired a competence.

His wife, who is a lady of some fortune, comes of a family noted for business talent. He has a daughter attending the University of the Pacific, and a little son. The elegant family residence is beautifully located on the corner of Third and St. James Sts., in view of St. James Park.

As a physician he is accurate in a diagnosis. Though of positive opinions and determined disposition, yet he is benign, affable, capable of strong attachments, and wears invariably a characteristic smile. Moreover, he has a commanding influence and is immensely popular. Such a man has the Garden City chosen for its mayor.



HON. C. W. BREYFOGLE, MAYOR OF SAN JOSE.

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Are very uncertain property; for every paying mine a hundred exist that do not pay. But if you write to Hallet & Co., Portland, Maine, you will receive, free, full particulars about their new business, and learn how some have made over $50 in a single day at it. You can live at home and earn from $5 to $25 and upward per day wherever you are located. Both sexes; all ages Capital not required; you are started free. Send your address, and all will be proved to you.

To Correspondents.

To the numerous correspondents of this paper who are asking for private information concerning the price of land, the climate, etc., in this county, we have to say that it is impossible for us to answer all such letters through the mail. In this paper itself an intelligent reader may gather most of the information that is needed, and Bailey & Phillips, the solid and reliable dealers in real estate, who have an office under the Auzerais House, in San Jose, will cheerfully furnish the rest. They will answer all letters, and we can assure our readers that the statements they make may be depended upon.

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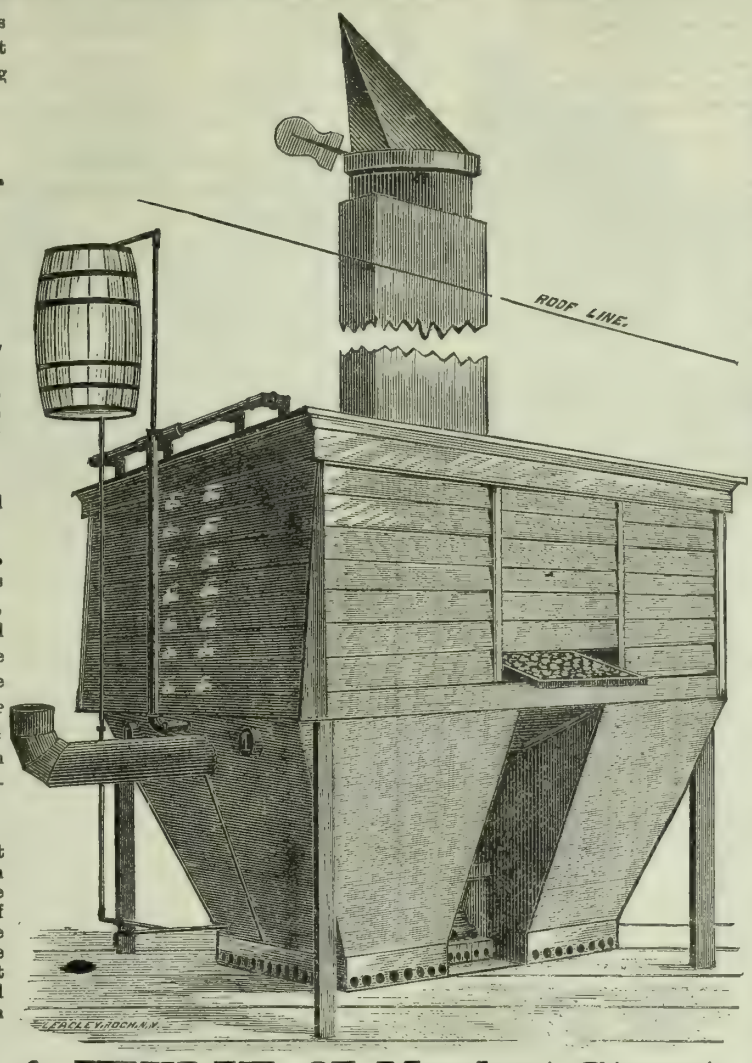
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☞We have two sizes of the Acme Steam Heat Evaporator. The one shown here is the No. 2, which is only about half the size of the No. 4, and can be operated with heated water in the chambers instead of steam, if desired. In using heated water we also use the heated air from the furnace in combination with the heat from the water. We believe we have the most perfect process of evaporating fruit yet introduced, and would be pleased to send Catalogues to any person interested in fruit evaporating. Address,



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By which the foreging results are attained, consists of a succession of flat steam chambers, placed one above the other, in close proximity, leaving room between them for the introduction of trays of fruit.

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Thus we retain the flavor, so essential to good fruit, but impossible by any other process.

In these machines two tiers of steam chambers are placed side by side with a space between them.

The steam chambers are inclined toward the outside, which causes all water from condensation to flow to the outer edge, whence it finds its way out, through the lower connections. This arrangement enables us to have the spaces of uniform width, and leaves the second connection free at all times, for the passage of steam.

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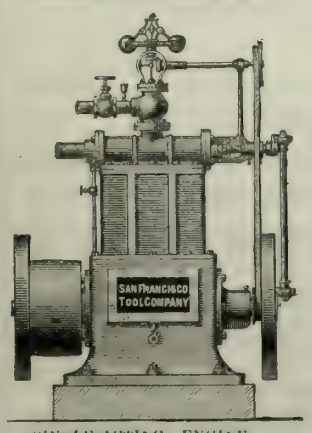
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TESTIMONIAL.

OFFICE OF THE EUREKA ELECTRIC LIGHT CO.,
EUREKA, CAL., Feb. 15, 1887.

San Francisco Tool Co., San Francisco, Cal.—GENTLEMEN: In answer to yours of Feb. 8, 1887, would say: The four engines purchased from your Company in January, 1886, have been running continuously ever since, from 12 to 16 hours each day, not excepting Sundays, and have never given any trouble; and, furthermore, they have never cost us anything for repairs. I consider them fully as economical as our slide-valve engines, which we are using. One of them is a balanced valve, Haskins' make, and the other is the New York Safety Power Company's make. The relation to the cost of keeping your Single-Acting Engine in repair to the cost of keeping the Slide-Valve Engines which were purchased the same month we purchased your engines, and working under the same conditions, is, that while there has been no expense in either material, or labor on the engines furnished by your Company, the expense of keeping the Slide-Valve Engines in good running order, has cost, on an average, $5 to $12 per month for each engine.

A portion of the time the Single-Acting Engines have been run by the fireman, and I can recommend your engines to parties that are not close to a machine shop, and do not want to keep an engineer and fireman, as with your engine all the attention they require is to fill the oil cups once every 16 hours, and turn the steam on and shut it off. The balance of the time the engine takes care of itself. Yours truly,

A. A. OSBORN, Superintendent.

This paper is printed with Ink Manufactured by Charles Eneu Johnson & Co., 500 South 10th St., Philadelphia. Branch Offices—47 Rose St., New York, and 40 La Salle St., Chicago. Agent for the Pacific Coast—Joseph H. Dorety, 529 Commercial St., S. F.

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Woolsey's Improved Steam Cheese Vat.

Constructed with a View to Equalizing the Temperature in every part thereof.

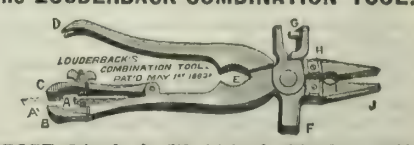
Received first premium at the State Fair in 1873, and in 1881. Its chief merit consists in being separate from the heater, thereby avoiding all artificial heat in the cheese-room.

This Generator and the Improved Steam Cheese Vat, which it is designed to operate, has **superseded all others** in the vicinity of Gilroy, and has received the highest praise from cheesemakers wherever it has been tried.

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JOHN S. WOOLSEY,
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THE VINEYARD.

The Principles and Practice of Pasteurizing.

University Experiment Station Bulletin, No. 66.

The numerous inquiries now being received in regard to the practice of, and appliances needed for, Pasteurizing of wines render it expedient to put in print, for general information, the main points in the premises.

The essential point to Pasteurizing is to heat wine to the temperature of 150°, or thereabouts, out of contact with air. This heating should be done as quickly as possible, and after the proper temperature has been reached it is best, other things being equal, to cool the wine as quickly as possible.

Several objects are accomplished by this heating. The one most generally aimed at is to kill the germs of all kinds of fermentation that may exist in the wine, in order that it may be safe from farther changes under their influence. Another is to advance the wine toward maturity. Also, to forestall any farther deposition of sediment, by the coagulation of the albuminous matters it still contains, and which endanger its soundness.

The general plan in the construction of Pasteurizers is usually the same as that of the various kinds of still condensers; only, in this case thewater around the worm is hot, and the cold wine in passing through the worm is heated to the proper point by allowing it to move with greater or less rapidity, in a solid column, so that a thermometer inserted at the exit end will show steadily the desired temperature. Beyond the thermometer, the wine passes into a cooler, from which it is delivered into the (well-cleaned) storage or shipping packages. In many cases, it is delivered into these directly from the Pasteurizer, and allowed to cool in the tightly bunged casks.

Wines of sufficient age, that have ceased to deposit sediment and are bottle-ripe, may be pasteurized in the bottles themselves, in a water-bath having the proper temperature. This is the preferred practice in the case of high-class wines.

The temperature must be carefully guarded, since if it either rises too high, or continues too long even at its proper point, the wine may acquire a "cooked" taste, and may lose its natural bouquet. Immediately after the operation the wine is somewhat flat, but in the course of a few weeks not only fully recovers its zest, but is found very much advanced toward maturity.

The Rationale of Pasteurization.—The effects of this process upon the wine may be thus summarized:

1. All fermentative germs of whatever nature are killed by the heat; the more promptly, the higher the heat and the alcoholic contents of the wine. Wines poor in alcohol, and especially those containing a remnant of sugar, require a higher temperature than those fully fermented out, and rich in alcohol.

2. Acids present in the wine are under the influence of the heating, partly neutralized by entering into combinations (ethers), which form part of the flavors of older wines. Hence, acetified wines become of milder taste at once, and even milksour ones gradually lose their "scratchiness," if not too far gone.

3. Wines while maturing in the cask are always found more or less impregnated with atmospheric air (oxygen), the gradual absorption of which forms a most essential part of the maturing process. After pasteurizing, the wine is found free from oxygen, proving that it has been absorbed during the process, thus often accomplishing in a short space of time an advance toward maturity that at the ordinary temperatures would have required months.

4. When the heat is raised sufficiently high (to about 160°, which can be done without injury to most classes of wine), the unstable "albuminoid," substances of new wines that continue to cause the formation of deposits of lees, for one or even two years after the completion of the vinous fermentation, are at once rendered insoluble and thereafter cease to give trouble; the wine, after having been cleared by settling or filtration, forms no more deposits, and can, if necessary, be bottled.

It should be understood that while pasteurization puts an end to all farther fermentation, it does not interfere in the least with the ordinary process of maturing in the cask. But, save in cases of emergency, it must not be practiced before the completion of the after-fermentation.

Should a wine, however, be found to be "going wrong" while the after-fermentation is progressing, it may be pasteurized to stop farther damage, and will then be ready to be started on a healthy after-fermentation the following season, or sooner if the materials (*e. g.*, condensed must) are at hand.

Pasteurization thus stands in lieu of any and all *antiseptics* heretofore used in the wine itself; it should replace sulphuring no less than salicylic acid. Of course, sulphuring will always be eminently useful in the cleansing or disinfection of caskage, and remains indispensable in clearing the cellar of foul germs.

Precautions Necessary to Insure Success.—While a well-pasteurized wine is secure against farther action of the ferment germs previously contained in it, it is, like any other wine, subject to re-infection from foul packages, bungs, pumps, hose, etc., as well as from impure water and air. Impure water used in rinsing packages is a fruitful source of trouble, and the bottling of wine in close, musty, unventilated and unsulphured cellars is responsible for many bottles of damaged wine, especially if the corks used have not been scalded in hot water. From want of these reasonable precautions, it has often been reported that pasteurizing is not the universal cure for wine diseases that, with proper care, it has always proved to be. Just as a dose of quinine cannot permanently prevent the denizens of malarious valleys from contracting chills and fever, so Pasteur's admirable process does not secure wine against injury from carelessness and filth.

The Practice of Pasteurizing.—Among a score of varied appliances brought forward by different inventors, a few only have gained wide acceptance. For California practice the "intermittent" patterns will hardly be considered; of those intended for continuous operation, which alone are adapted for large-scale practice, there are essentially two types. In one (including the "oenotherms" of Terrel des Chenes and of Carpené) the cold wine passes through one or



TYLER BEACH, ESQ., OF SAN JOSE.

several metallic (block tin, or copper tinned) pipes immersed in water heated by proper furnaces, or by steam; in the other, the pipes are replaced by a ring shaped space between an inner and outer cylinder. The former system has on the whole been more generally accepted.

As has been stated above, the overheating of any portion of the wine must be carefully avoided. Hence the temperature of the water-bath must not greatly exceed that desired for the wine, since otherwise the outside portions would, in traversing the pipe, be heated up too high and therefore be "cooked" (the same objection lies against heating the wine in a closed tank by means of a steam coil, as has sometimes been done). Hence again, large pipes are unsuitable, as the temperature would be taken too slowly, and as a single small pipe would reduce too much the working capacity of the apparratus, the inlet pipe is made to branch into a number of these, disposed in the form of either a ribbon, or a loose bundle, of coils. In Terrel's apparatus (which may be considered the most perfect) the cooler is similarly arranged.

For ordinary purposes, however, this complex and somewhat costly construction is very commonly replaced by a single pipe forming a long coil of somewhat greater diameter than those in Terrel's apparatus; and this form, being easily constructed by any plumber, is sufficiently well adapted to the needs of small producers.

At the winery of Mr. Juan Gallegos, near Mission San Jose, a Pasteurizer of satisfactory working and output consists of a 90-gallon "farm boiler," within which is placed a coil consisting of 130 feet of ½-inch block-tin pipe, held in form and position by four straps (U-cross section) of strong galvanized sheet iron, to which the coils are soldered, so that the whole can be freely handled and taken out of the boiler when not in use. A similar coil in a wooden tank forms the cooler, and the capacity of the apparatus is about 450 gallons per day (ten hours).

The Pasteurizer in use at the viticultural laboratory of the University has a coil of ¼-inch block tin pipe, 30 feet long, immersed in a 15 gallon boiler; a 20-foot coil of the same pipe forms the cooler. The capacity of this single pipe is 8 to 10 gallons per hour when the tank water is kept at about 160°; with ten similar tubes and a bath temperature of 170° (which is admissible for many wines) in a 100 gallon boiler, the hourly capacity would be over 100 gallons, or say 1000 gallons in ten hours.

A large apparatus according to Terrel, with a capacity of 250 gallons per hour, costs at the factory $240.

In order that any of these appliances may work with perfect regularity, it is best that the wine should descend by gravity from a supply cask, adjusted once for all to such a hight above the heater as to form a proper pressure column; into this supply cask the wine to be treated is pumped as needed. Pumping the wine directly into the heater is objectionable because of the spasmodic action, by which some portions of the wine may escape adequate heating, while others are overheated. For the regulation of the flow to the exact temperature desired, a faucet (tinned inside) is interposed between the cask and the heater; it is convenient to have another placed between the heater and the cooler, or the receiving cask. The inlet pipe must descend to the bottom of the heater, so that the wine moves *upward* in the spiral; otherwise accumulation of gas bubbles causes irregularities. When a cooler is used, fuel may be saved by using in it, instead of water, the wine that is to be heated and may thus be given a part of its increase of temperature.

It will thus be seen that pasteurizing is an exceedingly simple operation, which can be performed by any intelligent laborer who can read a thermometer and adjust a faucet.

Utility of Pasteurization.—When it is considered to how great an extent the general use of the pasteurizing process can do away with the most serious difficulties under which California winemakers labor, its importance can hardly be overestimated. Our hot vintage season and the imperfect methods of fermentation still so commonly practiced, render our wines peculiarly liable to the introduction of noxious germs, which develop so soon as the after-fermentation is completed, if not sooner. Pasteurizing will put a final stop to these dangers, provided proper care and cleanliness is used in handling them afterward.

It is the common practice to ship our wines when very young, and they go to long distances and pass through great alternations of temperature. Once pasteurized, they will stand this treatment without material danger or deterioration. If given rest for some weeks after the process, they may be fined, if necessary, and will arrive nearly as clear as they left the shipper.

One of the most serious sources of complaint against California wines in the East is that they "will not keep," the cause being very generally the fact that, being too young to be bottled like imported wines of greater age, they undergo unsound fermentation in the bottles, as they still contain germ food, and possibly germs of all kinds. All this is done away with by pasteurizing, without the need of salicylic acid and without injury to the wine.

I believe that when these matters are fully understood by our winemakers and shippers, the Pasteurizing of wines before shipment will become the rule instead of the exception. A prudent shipper dealing with valuable wines, of the perfect soundness of which he has the slightest doubt, will not jeopardize his pecuniary interest and his reputation by omitting so simple and inexpensive a means of insuring their perfect safety. Wines made with all proper precautions may still go, unscathed, as they come from the storage casks, but even the additional "age" imparted by Pasteur's process will, when wines are properly graded and valued, generally pay for the labor involved.

But all inducement toward the improvement of our product vanishes so long as the wine-dealer continues to preach and act upon the maxim that "wine is wine" in his dealings with the producer. The communistic principle is fatal to all individual improvement and progress, whether applied to society or to wine production; it stands next to adulteration and stretching in barring the progress of the wine industry in California. E. W. HILGARD.

Berkeley, Feb. 25, 1887.

Tyler Beach.

Tyler Beach, a resident of San Jose since 1854, was born in Warren county, N. Y., Sept. 29, 1832. When he was five years old his parents removed to Saratoga county in the same State; thence in May, 1845, to Walworth county, and in 1847 to Columbus county, Wisconsin, whence he started for California in November, 1853, by the Nicaragua route.

Having arrived in San Francisco in February, 1854, he reached San Jose April 18th.

For two years he followed the business of boring artesian wells. He next engaged in farming and dairying. On the 3d of April, 1861, Mr. Beach married Miss Martha Ann Smith, a native of Iowa. Mrs. Beach is an amiable lady, whose life has been devoted to the proper rearing of her family, and to making those around her comfortable.

The family consists of two daughters and five sons; namely, Sylvia E., wife of Mr. Frank Andrews, of San Francisco; George H., of Benson, Arizona, train-dispatcher and acting superintendent of the Arizona & New Mexico railroad; William H. S., a late graduate of the University of the Pacific; Charles S., graduate of Empire-street grammar school; James T., Henry S., and Sarah Della, who are attending the San Jose public schools.

The first to start an ice trade in San Jose, Mr. Beach continued it from 1861 for 22 years. During a period of 15 years he conducted a wood and coal yard, which old residents remember as located on St. John street, in the rear of his hotel property.

The St. James hotel, of which he is the proprietor, fronts on First street and overlooks San Jose's glory and pride, the St. James Park, whose evergreen foliage and lawns, winding paths, and pleasant shade delight the weary traveler.

Mr. Beach conducts his hotel with a view to pleasing his guests, whom he provides with every comfort. From his ranch, three miles distant, his table is supplied with dairy and farm products, which, being unadulterated and wholesome food, stimulate the appetite. Among those at his table may be found many of his old friends, who have boarded at his hotel for years. Genial by nature, he gains the lasting friendship of all with whom he comes in contact.

Mr. Beach has achieved considerable success in raising thoroughbred stock. His Ayrshire and graded Durham cows, and Berkshire and Essex pigs, include some of the best specimens to be found in the United States.

Besides the property mentioned, Mr. Beach owns several pieces of valuable real estate, as well as a quicksilver mine which is not being worked on account of the low price of quicksilver.

Having a keen perception and clear foresight, his opinion on financial questions and measures of public policy is highly esteemed by his townsmen, who consider him a good representative of an Jose's business talent.

BEST & DRIVER'S IMPROVED COMBINED HARVESTER for 1887

Manufactured at the

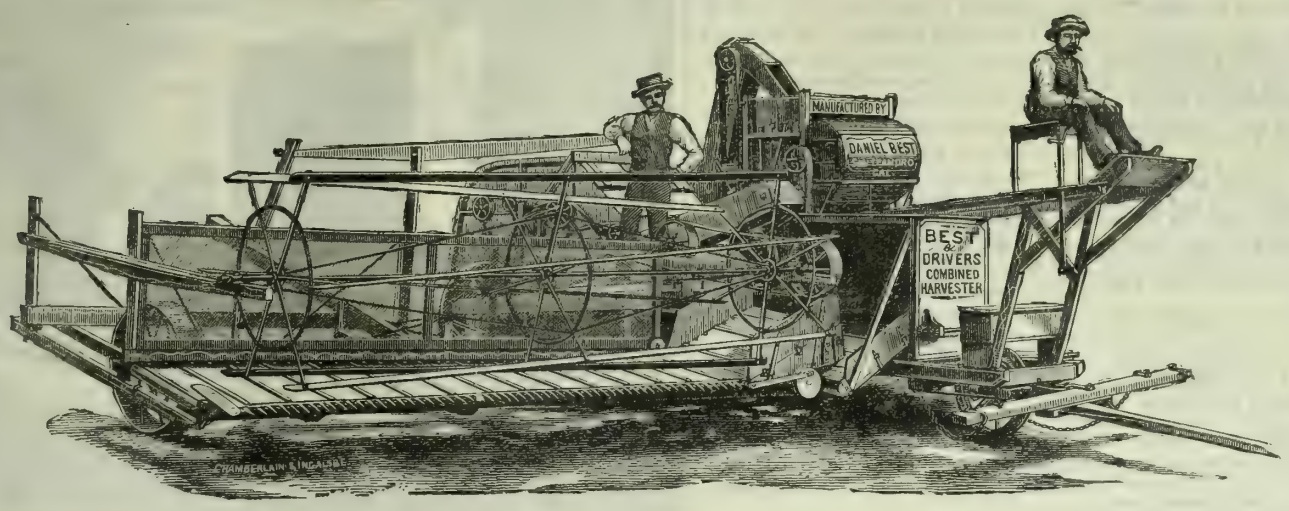
DANIEL BEST AGRICULTURAL WORKS, San Leandro, Cal.

STANDARD SIZE

—IS—

14 Feet.

Will make any size that is ordered.



Belt

—AND—

Geared.

The BEST & DRIVER IMPROVED Combined Harvester, without doubt, will be the Leading Machine this season, is the verdict of all those who have inspected it.

IT H S VALUABLE IMPROVEMENTS THAT ARE NOT FOUND IN ANY OTHER COMBINED HARVESTER MANUFACTURED. SPACE WILL NOT ALLOW US TO ENUMERATE HERE; AN INSPECTION OF THE MACHINE WILL CONVINCE YOU.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvestin expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** ttached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, o that they will not fall to pieces under a hot sun.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly cl an the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

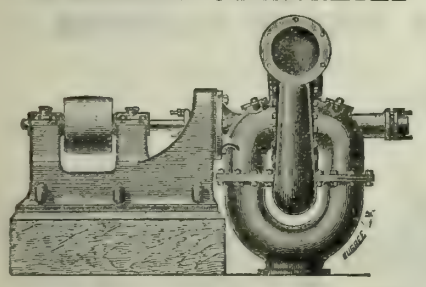
Write for Circulars. For further information, prices, etc., address

DANIEL BEST, San Leandro, Alameda Co., Cal.

H. P. GREGORY & CO.

SOLE AGENTS FOR

WEBBER'S CELEBRATED



IRRIGATING PUMPS.

WE ALSO CARRY IN STOCK THE LARGEST LINE OF

MACHINERY

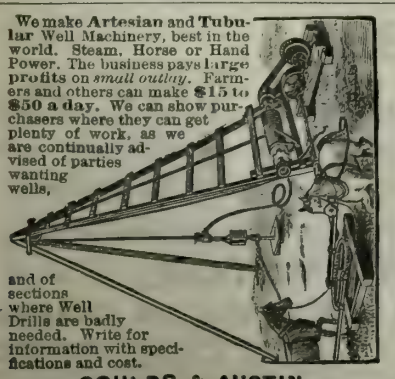
In the UNITED STATES,

Consisting of Wood and Iron Working Machinery. Pumps of every description.

ENGINES AND BOILERS

A SPECIALTY.

We make **Artesian** and **Tubular** Well Machinery, best in the world. Steam, Horse or Hand Power. The business pays large **profits** on *small outlay*. Farmers and others can make **$15 to $50 a day.** We can show purchasers where they can get plenty of work, as we are continually advised of parties wanting wells,



and of sections where Well Drills are badly needed. Write for information with specifications and cost.

GOULDS & AUSTIN,
167 & 169 Lake St., CHICAGO, ILL.

STOCKTON COMBINED HARVESTER & AG'L WORKS

Stockton, Cal.

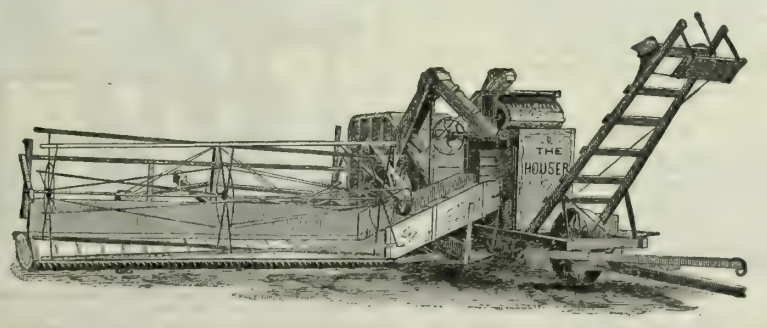
The only Manufactory that makes a Specialty of Building

COMBINED HARVESTERS.

PULL and PUSH, BELT and GEARED.

Houser, Minges, Shippee, and Powell

THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.

THE BEST KNOWN AND MOST POPULAR.

300 in Field Use and No Failures.

NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Reading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞ See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

The WHITE IS KING

FOR FAMILY USE,

Dressmaking, Tailoring and General Manufacturing.

IN ITS GREAT RANGE OF WORK IT STANDS WITHOUT AN EQUAL.

THE LIGHTEST RUNNING,
THE MOST DURABLE,
THE FINEST FINISHED,
THE BEST SATISFYING.

WHITE SEWING MACHINE COMPANY,
108 & 110 POST ST., S. F.

HORTON & KENNEDY'S

FAMOUS

ENTERPRISE

Self-Regulating

WINDMILL

Is recognized as THE BEST.



Always gives satisfaction. SIMPLE, STRONG and DURABLE in all parts. Solid Wrought-iron Crank Shaft with DOUBLE BEARINGS for the Crank to work in, all turned and run in adjustable babbitted boxes.

Positively Self-Regulating.

With no co springs, or springs o any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills, etc., kept in stock. Address,

HORTON & KENNEDY
GENERAL OFFICE AND SUPPLIES (as always before
LIVERMORE, ALAMEDA CO., CAL.

San Francisco Agency—JAMES LINFORTH
120 Front St., San Francisco.

SHEEP AND WOOL.

Cured of Sheep-Killing.

A dog that had once learned the trick of making mutton is usually regarded as incorrigible; but the Santa Rosa *Democrat* reports one radical cure and describes how the case was treated.

It appears that one of the oldest residents of that city, who is fond of shooting, and prides himself on his fine dogs and guns, bought a "purp" which had been represented to him as invaluable in the deer-chase; and so he proved —"a finer dog never bayed a buck." But he had one fault, a fault which has cost many of his kind their lives—he would kill sheep. Upon this fact being developed, he was on the point of shooting him on the spot, but he bethought himself that perhaps the trait was not incurable, as has been so often stated; so he lowered the gun from his shoulder, and paid the owner of the dead sheep.

A few days afterward he had occasion to visit a friend in the country, and took the dog with him for the purpose of trying his experiment. Informing his friend of his design, they proceeded to the field where a large band of sheep were feeding. The dog at once pricked up his ears and started for them. After he had succeeded in "rounding them up," the two men came to the rescue of the timid animals and singled out a large and well-horned ram. The dog was muzzled and fastened to the horns of the ram by a rope 12 feet in length. In a moment the fun commenced. The ram, true to its instinct, made a dash to free itself; the dog, true to its habit, "made a break" for the ram. Finding that flight was of no avail, the ram turned and made fierce fight. The dog being muzzled was at a disadvantage, and the way he was butted around that field was very lively. No sooner would he regain his feet than the frantic ram was upon him, and over he would go, sometimes being thrown the length of his rope. At last he weakened, and strove to break the bands which held him at the mercy of the avenging ram. When the sport was over the dog was nearly dead. From that time he has never offered to molest a sheep.

KERN COUNTY SHEEP HUSBANDRY.—Bakersfield *Californian*, Feb. 26: There are a great many sheep-men in this county, owning a vast number of sheep in the aggregate, who depend upon the open or outside ranges. When there is feed they do well, but in times of scarcity they meet with heavy losses. Up to within a few weeks, this season threatened to be the worst for them ever known. There had been little or no rain and nights cold and frosty. It looked as if there would be an absolute failure of feed and consequent destruction of their flocks. Owing to the recent copious rains and enormous snowfall on the mountains a late crop of good grass is assured, and they have narrowly escaped the threatened calamity. But the feed is still scanty, and before the period of assured abundance comes their losses will foot up heavily. They have met with similar experience several times before, and it is surprising that so few have taken steps to guard against the recurrence of these evils. If each of them were to acquire 20 or 40 acres of land in the valley upon which to gather and stack an accumulation of feed, from year to year, against periods of scarcity like the present, it would remove the present element of uncertainty from their business, and save them the anxieties and harassments they suffer on such occasions.

NOMADIC SKINNERS.—The Shasta *Courier* thus notices a little band of enterprising rovers, whose visits can hardly be welcome to the herdsmen of that region: A party of three Italians and a Chinaman came up to this county from the lower country about three weeks ago and struck a bonanza. They are professional "skinners," and follow in the wake of severe and prolonged storms as persistently as gulls follow ships at sea. Their outfit consists of a team, covered wagon, blankets, box of provisions, frying-pans, coffee-pot, an assortment of knives, small grindstone, etc., and their business is to take the hides off of the carcasses of such cattle and sheep as have succumbed to hunger and the weather. Where the owners of such stock are encountered they offer to pay a small price for the hides; but where no owner shows up, the hides are appropriated without ceremony. They are a tough lot, and it is surmised that they would not hesitate to insert a knife into the windpipe of weak animals—just to put them out of their misery, of course. The Chinaman's specialty appears to be the galls of the cattle, which, it is said, are used in China in coloring silk.

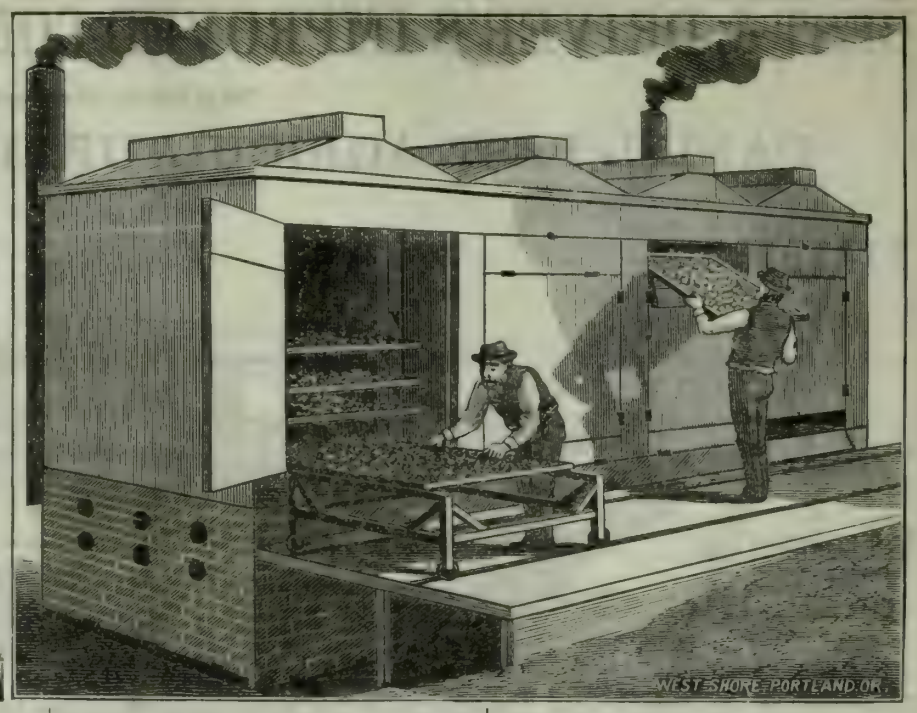
OONSHIU ORANGE.—Mr. Amoore, of the Japanese Tree-Importing Company (120 Sutter St., S. F.), brings us a specimen of the Japanese orange, the Oonshiu, to which allusion was recently made, which is quite two and a half inches in diameter and of the general features previously described. He brings also samples of dried Japanese persimmons, which those who have this fruit growing should study to imitate, as they may perhaps find a good market for them. Mr. Amoore reports much interest in Japanese fruits among our horticulturists.

NAPA winemakers are, generally, holding their wines for higher prices this season.

The Evants Pneumatic Evaporator.

This is a modification of the Alden Evaporator. To retain the spreading surface given by the Alden upon 64 trays, one above the other in a vertical column, the shaft, or evaporating chamber, is constructed in a *horizontal*, instead of vertical position. This horizontal shaft was divided into four sections, or compartments, each being provided with the Evants Patent Fruit-tray Elevator and 16 fruit trays. To this was applied the Evants Patent Double-return Furnace, which, it was discovered, will heat, with PERFECT UNIFORMITY, 14 sections with 224 fruit trays, instead of four sections with 64 trays. Thus increasing the Alden capacity by five to one, while the cost is reduced more than 50 per cent, and by the use of the Evants Automatic Tray Carrier, and other labor-saving devices, one man does the work for which four were required by the Alden.

The "Alden principle," and all of its advantages, are retained and fully utilized in the EVANTS PNEUMATIC EVAPORATOR; its products a fac-simile of Alden goods. No payment on evaporators required until this statement has been verified by an actual working test.



The capacity of prunes per day, of a $2000 evaporator is 16,000 pounds—fresh fruit. Pitted fruits dry in one-half the time required for prunes. This is an Oregon invention, where all fruits must be dried by artificial heat, and has been three years in successful operation.

Address,
THE PNEUMATIC EVAPORATOR CO.,
(P. O. Box 106.) Alameda, Cal.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
R. G. HUNTON—Los Angeles and San Bernardino Cos.
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Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

AMERICAN SETTLER'S GUIDE.—Henry N. Copp, the land lawyer of Washington, D. C., has issued the 12th edition of his "Settler's Guide." It claims to give full information about the homestead, pre-emption, timber culture, desert land, and other laws, together with Commissioner Sparks' orders and late decisions and instructions; makes a pamphlet of 119 pages, and may be had for 25 cents.

The Old and the New.

The old-style pills! Who does not know
What agony they caused—what woe?
You walked the floor, you groaned, you sighed,
And felt such awful pain inside,
And the next day you felt so weak
You didn't want to move or speak.
Now Pierce's "Pellets" are so mild
They are not dreaded by a child.
They do their work in painless way,
And leave no weakness for next day.
Thus proving what is oft confest
That gentle means are always best.

The Ruddy River

Of life is the blood. From it the system receives all its material of growth and repair. It bathes every tissue of the body. How necessary, then, that the blood should be kept pure and rich. Dr. Pierce's "Golden Medical Discovery" is the great blood food and blood purifier. It is a sovereign remedy for all diseases due to impoverished blood, consumption, bronchitis, weak lungs, scrofula, influenza, and kindred diseases.

* * * * Delicate diseases in either sex, however induced, speedily cured. Book, 10 cents in stamps. Address, in confidence, World's Dispensary Medical Association, 663 Main street, Buffalo, N. Y.

SEEDLINGS FOR SALE.

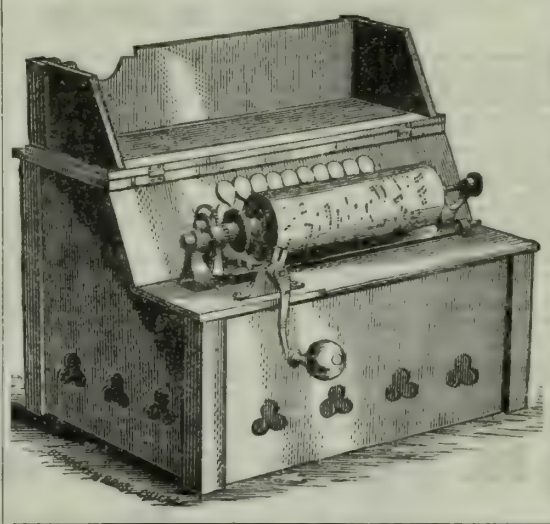
18,000 Pear Seedling, 6000 ditto Myrobolan, 3000 ditto St. Julien Plum, 5000 Apple, 5000 ditto Cherry Mazzard, $5 per M. All in prime condition, ready to be set in nursery now.

GUSTAV EISEN,
Fancher Creek Nursery, FRESNO, CAL.

FOR SALE.

2240 Acres of land in Shasta Valley, Siskiyou county, Cal. Six miles from Montague. It is well watered with living springs, is fenced, has a house, barn and granary upon it. Two-thirds are suitable for cultivation and all is good grazing land, Price $25,000.

Also, 3240 Acres adjoining the TOWNSITE OF MONTAGUE. For further particulars, call, from 10 A. M. to 2 P. M., at room 2, 116 California Street, San Francisco, Cal., C. C. WEBB.



—THE—
ROLLER ORGAN

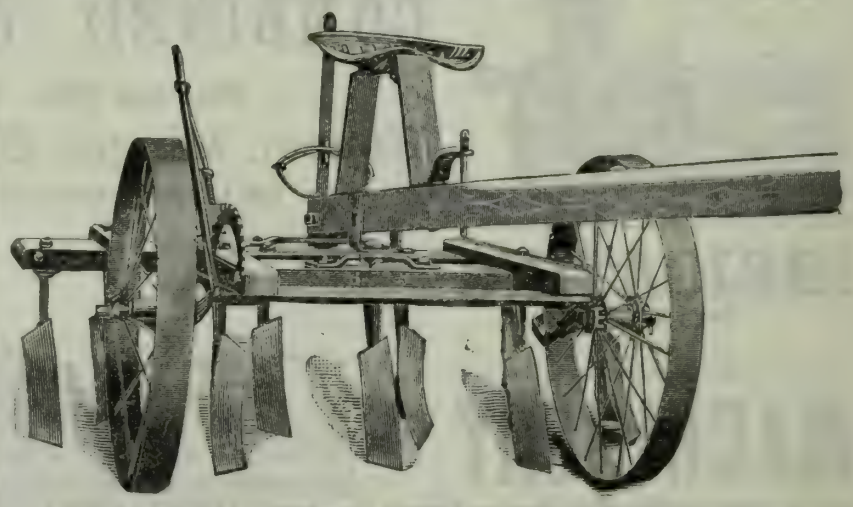
Price $12 with 3 Rollers.

A NEW AND NOVEL MUSICAL INSTRUMENT.

The tone is clear, sweet and full. It employs no paper, but its music is obtained from a roller similar to that of a music box. Any one can play any tune upon it. This instrument performs sacred, operatic, popular songs and dance music. Where musicians have to be engaged, it will save its cost in one night. Send for circular.

C. H. HAMMOND,
General Agent, Eureka Bazar,
2224 Mission St., S. F.
Special Inducements to Agents.

"MOULTON'S" ORCHARD AND VINEYARD CULTIVATOR.



A BOON TO ORCHARDISTS AND VINEYARDISTS. Has low wheels; frame extends beyond the wheels, enabling close work and preventing the rubbing of bark off trees and vines. Has patent adjustable shovels and shifting tongue; the latter is valuable for side-hill work, and can be used to advantage on level ground. Give us a trial order. Manufactured by

SAN JOSE AGRICULTURAL WORKS, SAN JOSE.

INSECTICIDES!

CODLIN MOTH WASH, WHALE-OIL SOAP, Etc.

the use o these Washes all insect life reached will be destroyed, and all trees washed will show a marked improvement in growth and general appearance. For sale by

ALLYNE & WHITE, 112-114 Front St., San Francisco.

Send for Circular.

C. M. H. CULTIVATOR.

Especially Adapted for Cultivation of Vineyards and Orchards.

This Cultivator is all Iron, A NEW MODEL, and an improvement over all others. The wheels are behind the Cultivator, the Spring Seat being so arranged that a man or boy can see all the workings, and can raise or lower the Cultivator with ease by his weight and the use of the lever. There is also a Side Lever for use on side-hills, or to run the Cultivator up close to trees not in line. Price of Cultivator, $35. Manufactured by

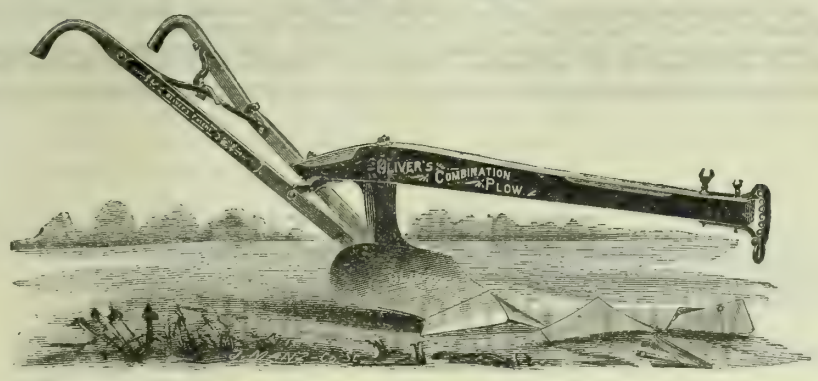
C. M. HENSLEY, Cor. First and Williams St., San Jose, Cal.

Oliver's Vineyard and Orchard Plow

No. 8.

A Vineyard Plow.

We give herewith a picture of a vineyard plow, made by the Oliver Chilled Plow Works, which has a branch establishment at 37 Market Street, San Francisco. The description of the main points of value in the plow is as follows:



The Standard and Beam are thrown to the center so as not to interfere with the growing vines. The Land-side handle is adjustable, and can be thrown to or from the land at will of operator. The share of this plow is made in two pieces, the wing forming one and the point the other, each reversible independently of the other, yet as a whole, forming a very strong and most complete share. The wing, as shown in the illustration, is so made that the bearings or fitting parts are entirely concealed from view when in position, so that they are not exposed to wear in the least, thus insuring a complete fit under any and all circumstances. The special design of the wing is such that a concave surface is always presented to wear, and this holds good until worn out, no matter how often reversed.

The Slip Point is a marvel of strength and utility, which is clearly apparent when the principle upon which it is constructed and held in place is considered. The peculiar notched prongs forming the upper portion of the point or that part which fits into the standard, are held in position by a lever resting against the inside of the standard, and when the strain is applied as the point comes into use the pressure on these prongs is so graduated as to be almost, if not quite uniform and perfect, and thus nearly the entire strain is taken off the foot of standard and exposed portion of the slip point, thereby avoiding much of the liability to breakage, so common in the ordinary points and standards.

The bearings of the slip point, like those of the wing, are entirely concealed, hence are not affected by any use the point may be subjected to and a perfect fit always results.

The design of this implement, which is styled "Oliver Chilled Plow, No. 8," resulted from a special inquiry into and study of the needs of Pacific orchard and vineyard men. The implement was only introduced last year, but "took" at once to such an extent that the branch house in San Francisco could not supply the demand, and the prospect now is that the reputation it has already made for itself will grow proportionately the present season.

The above was written one year ago, and from the numerous testimonials received from Vineyard and Orchard Growers of this State, we feel perfectly safe in recommending this Plow as being the very best of its kind for sale on the Pacific Coast. Call on our nearest agent, or address

OLIVER CHILLED PLOW WORKS,

37 Market Street, · · San Francisco, Cal.

PAPER BUTTER CLOTH.

DAIRYMEN!

Send to us for Samples of our

PAPER BUTTER CLOTH

And Try It.

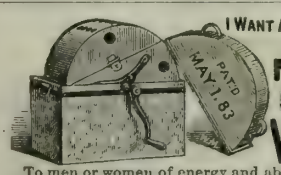
It is Impervious to Water, Brine, or Oil, and Butter wrapped in it will preserve its freshness a much longer time.

Is absolutely clean and innocent of any foreign taste or taint.

FOR USE IT WILL COST ABOUT HALF THAT OF CLOTH.

☞SEND FOR SAMPLES.

S. P. TAYLOR & CO.,
No. 416 Clay St., San Francisco.



I WANT AGENTS TO SELL THE

MISSOURI STEAM Washer

To men or women of energy and ability, seeking profitable employment, exclusive territory will be given with Agency. The Washer is made of metal and works on a new principle which saves labor, clothes and soap. **Sample sent on a week's trial to be returned at my expense if not satisfactory.**

$600 to $2.000 A year is being made by competent, shifty agents. Intrinsic merit making it a phenominal success everywhere. Send for my illustrated circular and terms of agency.
J. WORTH, Sole Man'f'r. 1710 Franklin ave., St. Louis, Mo.

Or P. O. Box 1968, San Francisco Cal.

GLADDING, McBEAN & CO.
CATALOGUE FREE
SEWER & CHIMNEY PIPE, DRAIN TILE, ARCHITECTURAL TERRA COTTA Etc
1358-1360 MARKET ST. S. F.
MANUFACTORY AT LINCOLN CAL.

HEALD'S BUSINESS COLLEGE,
24 Post St. S. F
Send for Circular.

PULVERIZING HARROW, CLOD Crusher and Leveler.

"ACME" TRADE MARK

AGENTS WANTED. Best Selling Tool on Earth.



Subjects the soil to the action of a Steel Crusher and Leveler, and to the Cutting, Lifting, Turning process of Double Gangs of Cast Steel Coulters—immense cutting power. Crushing, Leveling and Pulverizing performed at the same time. Entire absence of Spikes or Spring Teeth avoids pulling up rubbish. The only Harrow that cuts over the entire surface of the ground.

We make a variety of sizes from 3 to 15 feet wide.

The **"ACME"** is in practical use in nearly every Agricultural County on the Pacific Coast, and has proved itself to be just the tool for

VINEYARDS, ORCHARDS AND GRAIN FIELDS.

☞Send for Pamphlet containing Thousands of Testimonials from 48 States and Territories.

DUANE H. NASH.

Manufactory and Principal Office, MILLINGTON, MORRIS CO., N. J.

N. B.—"TILLAGE IS MANURE," AND OTHER ESSAYS, sent free to parties who NAME THIS PAPER.

For Sale on the Pacific Coast by

BULL & GRANT FARM IMPLEMENT CO., 26 Beale St., San Francisco, Cal.
STAVER & WALKER Portland, Or., and Walla Walla, W. T.

GRANGERS' BUSINESS ASSOCIATION,

SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL.

Warehouse and Wharf at Port Costa.

CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

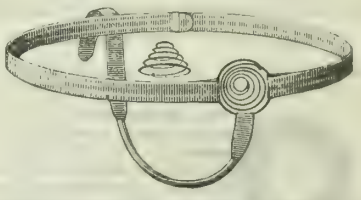
Money advanced on Grain in Store at lowest possible rates of interest.
Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.

E. VAN EVERY, Manager. A. M. BELT, Assistant Manager.

HENDERSON'S PATENT TRUSS.

Comfortable and Reliable.



This simple truss can be worn without inconvenience, and gives all the comfort to the wearer that can be obtained from a perfect-fitting, pliable apparatus. The pad is soft and yielding, and on account of its peculiar construction and the connections of its securing bands, cannot get out of place. It will remain in place no matter what position the wearer may assume. The engraving shows the construction of the appliance. It is simplicity itself, and is comfortable and reliable. Address,

JESSE G. HENDERSON,
Grizzly Flat, El Dorado Co., Cal.

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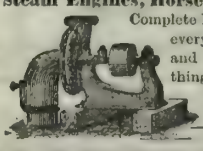
AGRICULTURAL WORKS,

Crockett, Contra Costa Co., Cal.

Stationary Engines and Boilers.
Portable Straw-Burning Boilers & Engines.
IRON AND BRASS CASTINGS.
Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery, including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

PUMPS FOR IRRIGATION AND RECLAMATION
Steam Engines, Horse Powers & Wind Mills.



Complete Pumping outfits—all sizes—for every purpose. The **latest, best** and **cheapest.** If you need any thing in this line, write to

BYRON JACKSON
625 6th St. San Francisco.

PALACE DYE WORKS,

633 Market St. under Palace Hotel, San Francisco, Cal.

All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.

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Banks and Banking.

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OF CALIFORNIA.
SAN FRANCISCO, CAL.

Authorized Capital, - - $1,000,000
In 10,000 Shares of $100 each.
Capital Paid up in Gold Coin, $645,360.
Reserved Fund and Paid up Stock, $21,178.

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LOANS ON WHEAT and country produce a specialty.
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Cashier and Manager.

San Francisco, Jan. 15, 1882.

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526 CALIFORNIA STREET,
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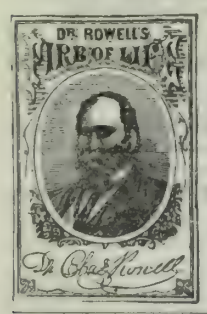
Capital and Deposits, Jan. 1, '87, $14,362,960.

LOANS MADE ON REAL ESTATE IN THE COUNTRY
AT LOWEST MARKET RATES.

MONEY TO LOAN
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At Reduced Rates, on Sums not less than $5000,
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☞Blank Forms of Application furnished

The BUYERS' GUIDE is issued Sept. and March, each year. 352 pages, 8½x11½ inches, with over 3,500 illustrations – a whole Picture Gallery. GIVES Wholesale Prices *direct to consumers* **on all goods for personal or family use. Tells how to order, and gives exact cost of everything you use, eat, drink, wear, or have fun with. These INVALUABLE BOOKS contain information gleaned from the markets of the world. We will mail a copy FREE to any address upon receipt of 10 cts. to defray expense of mailing. Let us hear from you. Respectfully,**

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227 & 229 Wabash Avenue, Chicago, Ill



A MAGIC CURE
—FOR—
Rheumatism, Neuralgia, Pneumonia, Paralysis, Asthma, Sciatica, Gout, Lumbago and Deafness.
Everybody should have it.
G. G. BURNETT, Ag't.
327 Montgomery St., S. F.
Price, $1.00. Sold by all Druggists. ☞Call and see
DR. CHAS. ROWELL.
OFFICE—426 Kearny St, San Francisco.

BEST TREE WASH.
"Greenbank" 98 degrees POWDERED CAUSTIC SODA (tests 99 3-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by
T. W. JACKSON & CO.,
Manufacturers' Agents,
104 Market St. and 3 California St., S. F.

MISSION ROCK DOCK
AND
GRAIN WAREHOUSE,
SAN FRANCISCO, CAL.
75,000 TONS CAPACITY. 75,000
Storage at Lowest Rates.
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Agents for Growers and Manufacturers. Charterers of Vessels for all Trades. Agents for the Mexican Phosphate and Sulphur Company's Products. General Insurance Agents.

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GRAND AUCTION SALE!

WEST COAST LAND CO.,
San Luis Obispo, Cal.

Incorporated March 27, 1886. CAPITAL, 500,000.

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ISAAC GOLDTREE.....San Luis Obispo.	R. E. JACK.....Treasurer.
R. E. JACK.....San Luis Obispo.	
C. H. PHILLIPS.....San Luis Obispo.	C. H. PHILLIPS, Secretary and Manager.

The WEST COAST LAND COMPANY now offering in subdivisions the

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

THE EUREKA RANCH,

Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

All lying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

Will sell

AT PUBLIC AUCTION

About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch,** consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

2100 acres of the **Huer Huero Ranch** in 20 subdivisions.

These are all agricultural and fruit lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara county, and require

NO IRRIGATION.

Title, U. S. Patent and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments, at 2, 3, 4 and 5 years; interest 6 per cent per annum The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

An additional charge will be made of $5, for deed in sale of town lots, and $25 in other cases for expenses of sale, including making and recording all papers.

Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

SALE WITHOUT RESERVE,

Providing that no bid will be entertained at less than 60 per cent of schedule prices.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo. From San Francisco, take 8:30 A. M. daily train, S. P. R. R., to Templeton.

Parties wishing to inspect said lands with a view to purchasing at the Auction, or any of the Company's Land at private sale, will be shown the property free of charge by applying at the Company's office in Templeton.

Maps of all the ranch subdivisions, of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands with a new descriptive catalogue are in press and will be sent free on application after the 25th inst. (February, 1887.)

Address:

C. H. PHILLIPS, Manager,
San Luis Obispo, Cal.

GRANGERS' CO-OPERATIVE STORE,
TENTH AND K STREETS, SACRAMENTO.



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General Merchandise, Groceries, Agricultural Implements, Wagons,
CARRIAGES AND BUGGIES.

A New Deal.

We buy for cash and sell for cash. The old credit system has been abandoned. We will not be undersold. We guarantee all goods as represented. We will give good value for your money. Our motto is quick sales and small profits and speedy returns.
☞Farmers and consumers will find it to their interest to call and see us and be convinced.
E GREER, Manager.

Seeds, Plants, Etc.

H. H. BERGER & CO.
Receive through season, by every steamer from Japan, best varieties of



Persimmon, Orange, Plum and Mammoth Chestnut Trees.

Rarest Ornamental Shrubs & Plants.

Camellias, 1 to 12 feet high, Azaleas, Rhododendrons, Bamboos, Magnolias, newest Chrysanthemums, Tree Pœonias, Roses. Send for our new Catalogue. P. O. Box 1501.

Depot, 317 Washington St., San Francisco.

Kelsey Gooseberry Cuttings
$10 per 1000.
Orders Promptly Filled.
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Haywards, Alameda Co., Cal.

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BEAUTIFUL EVER-BLOOMING
ROSES
Our Great Specialty is growing and distributing ROSES. We have all the latest novelties and finest standard sorts, in different sizes and prices to suit all wants. Over 150 *choice varieties* to choose from. We send strong Pot Roses safely by mail to all Post Offices, purchaser's choice of varieties, all labeled.
3 TO 12 PLANTS $1, $8 to $15 per Hundred, according to value. Two year Roses by express. Our New Guide, 72 pages, elegantly illustrated, Free. Address THE DINGEE & CONARD CO., Rose Growers, West Grove, Chester Co. Pa.

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Importers of the celebrated
Seedless OONSHIU ORANGE Trees
SEND FOR CIRCULAR.

PLANT SEED COMPANY'S RELIABLE.
SEEDS FOR THE GARDEN, FARM & FIELD.
Write for their ILLUSTRATED CATALOGUE. Address:
PLANT SEED COMPANY.
612 NORTH FOURTH STREET, SAINT LOUIS, MO.
(Mention this Paper.)

JOHN SAUL'S CATALOGUE
Of New, Rare and Beautiful Plants for 1887 IS NOW READY. It is full in really good and beautiful plants, as well as all the novelties of merit. The rich collection of fine Foliage, and other Greenhouse and Hothouse plants, are well grown and at low prices
ORCHIDS—A very large stock of choice East Indian, American, etc.
Also, Catalogues of Roses, Orchids, Seeds, Trees, etc.
JOHN SAUL, Washington, D. C.



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Catalpa Speciosa, White Ash, European Larch, Pines, Spruces, Arbor Vitæs, etc., etc.
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First-class 2-year old CHERRY TREES, leading varieties, Black Republican, etc. HUNGARIAN and GERMAN PRUNES, 1-year old, on MYROBOLAN Stock; 6 feet high. A BARGAIN FOR CASH.
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DEL MONTE VINEYARD NURSERY,
FRESNO, CAL.
For Sale—White Adriatic Fig Cuttings of my own importation Grape Roots and Cuttings of Carignan, Mataro Grenache, Teinturier, Trousseau, Carbenet Sauvignon, Malbec and Muscat Frontignon, etc.
M. DENICKE

BEACH & CO'S ROSES
Send stamp for our beautiful catalogue of all the Newest and Best Roses, Geraniums, Carnations, and all kinds of House and Bedding Plants, before ordering elsewhere. We make no extravagant promises, but sell GOOD SOLID GOODS at fair prices, safe arrival guaranteed by mail or express. Our page of special selections will surely contain something you will desire.
Address BEACH & CO., RICHMOND, IND.

Sibley's Tested Seeds
Catalogue free on application.
Send for it.
HIRAM SIBLEY & CO.,
ROCHESTER, N. Y. & CHICAGO, ILL.

Seeds, Etc., Continued on Page 210.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Feb 24-Mar 2.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.12	35	S	LS.	.14	47	W	Cy.	.34	42	SW	LR.	.27	45	Nw	LR.	.00	61	S	Cl.	.00	55	Nw	Fr.
Friday	.12	40	S	Cy.	.00	46	N	Cl.	.13	43	Nw	Cl.	.05	48	N	Cl.	.00	60	SE	Cl.	.00	57	Nw	Cl.
Saturday	.02	42	SE	Cy.	.00	51	N	Fr.	.00	48	N	Cl.	.00	54	N	Cl.	.00	68	NE	Cl.	.00	67	Nw	Cl.
Sunday	.19	59	S	Cl.	.00	59	N	Cl.	.00	51	Nw	Cl.	.00	58	E	Cl.	.00	72	E	Cl.	.00	71	N	Cl.
Monday	.00	52	SE	Cy.	.00	62	N	Cl.	.00	54	N	Cl	.00	64	N	Cl.	.00	80	SE	Cl.	.00	71	Nw	Cl.
Tuesday	.79	42	SE	Cy.	.00	56	N	Cy.	.00	57	N	Fr.	.00	58	N	Cy.	.00	76	SW	Cl.	.00	65	W	Cl.
Wednesday	.00	42	Nw	Cl.	.17	55	N	LR.	.07	54	Nw	Cy.	.07	58	SW	LR.	.00	70	W	Fr.	.00	63	Nw	Cl.
Total	1.24				.31				.54				.39				.00				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING FEBRUARY 15, 1887.

357,652.—WINDMILL—D. P. Barrett, Oakland, Cal.
357,822.—HARVESTER REEL—Jos. Gilbert, Los Angeles, Cal.
357,664.—CLIP FOR WIRE ROPE WAYS—A. S. Halidie, S. F.
357,773.—SHELL EXTRACTOR—C. H. Keenan, Ft. Halleck, Nev.
357,775.—EVAPORATOR—W. F. Lambert, S. F.
357,612.—CAR AXLE—I. W. Lewis, Portland, Ogn.
357,841.—HOEING AND RAKING MACHINE—D. Lubin, Sacto.
357,842.—CLOD-CRUSHER—D. Lubin, Sac'to.
357,843.—CLOD-CRUSHER—D. Lubin, Sac'to.
357,844.—CLOD-CRUSHER—D. Lubin, Sac'to.
357,798.—VAPOR-BURNER—Wm. Wainwright, S. F.
357,799.—SPRINKLER—Wm. Wainwright, S. F.
357,802.—FOG-HORN—Geo. White, S. F.
17,111.—DESIGN—W. V. Arthur, Oakland, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

CITRUS JAPONICA.—We saw at H. H. Berger & Co.'s (317 Washington St., S. F.) a collection of Japanese orange trees (*Citrus Japonica*) laden with fruit. They were very pretty little trees, and having the fruit attached as grown made the determination of the variety certain. The *Citrus Japonica* would not be generally acceptable as a fruit to be eaten out of hand, for it has something of the acid of the lime blended with the orange flavor. It is believed that it will be found very desirable for preserving and crystallizing, for the size is desirable for those uses and the skin is so thin that it can be eaten just as one eats preserved apricots or other fruits. The trees are pot-grown and are very small. The variety is claimed to grow 10 to 12 feet high in the open ground and the fruit to be about the size of a nectarine. We were informed that a member of the firm intends soon to start for Japan to make personal selection of plants and seeds for this fall's trade. Meantime many interesting things of Japanese origin can be seen at the Washington-street depot.

VALUED BY A COTEMPORARY.—The Chico *Enterprise* reproduces the likeness and life-sketch of Father Nelson which appeared in our issue of Feb. 12th, and in giving credit for it takes occasion to add: "The RURAL PRESS is one of the most valuable papers for farmers that is printed. We commend it to all."

L. W. PARSONS & Co., of San Jose, claim that their patent fruit evaporator combines the merits and avoids the defects of all previous patterns, joining the searing-over process with a dry finish, without danger of scorching. Their advertisement may be found elsewhere.

THE ROLLER ORGAN, advertised in another column, is somewhat of a musical novelty. There are no punctured papers about it; the expense is not great, it is easy to work, and under certain conditions can be made to serve the purpose of a band.

ROSES.—E. Bourguignon, of San Jose, in addition to general floriculture makes a specialty of fine roses, and his exhibit at the San Jose Fair bore testimony to the extent of his collection and his skill as a grower.

APPLEGATE'S

Cold Water Bleaching Soap

Was Awarded the First Premium at the State Fair at Sacramento, for the year 1886, UPON ACTUAL MERIT.

It can be used in Bath, Toilet or Laundry, and dispenses with Fuel, as no Warm Water or Boiling is Necessary. Beware of Cheap Imitations.

The Genuine is manufactured only by

J. J. APPLEGATE,

No. 12 Bush Street, San Francisco

You can certainly

Stop Coughing

With 10 parts molasses or honey to one part of

PERRY DAVIS'

Pain Killer.

Take ¼ teaspoonful often.

TRY IT.

PAINKILLER also Cures Sore Throat, Diphtheria, Rheumatism, Neuralgia

HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

J. R. CATES & CO. PROPRIETORS,
417 Sansome St. San Francisco

AGENTS WANTED TO SELL —THE— **MISSOURI STEAM WASHER**



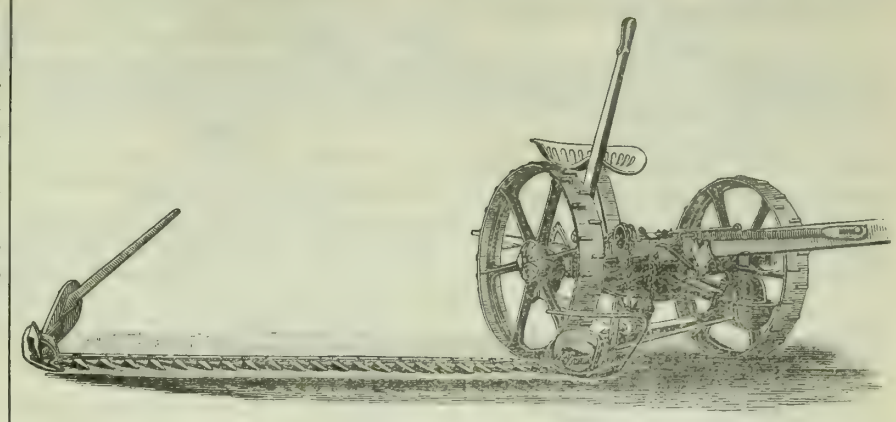
To men and women of good character, seeking profitable employment, exclusive territory will be given with agency. Teams can be used to advantage by agents in country districts. The Washer is made of metal, size 13x22 inches at base, and works on a new principle, which saves labor marvelously. Sample shipped on a week's trial on liberal terms. Its great merit enables agents to earn $50 to $200 per month. Write for illustrated circular and terms of agency. J. WORTH, Sole Mfr. 1710 Franklin Ave., ST. LOUIS, Mo.

Or P. O. Box 1968, San Francisco, Cal.

PARSONS' FRUIT EVAPORATOR.

A complete success! Fire Proof! Best and cheapest. For circulars send to L. W. PARSONS & CO., San Jose, California.

THE STANDARD MOWERS.



The Only Successful and Practical WIDE-CUT MOWERS.

The entire weight of the Cutter Bar being suspended on the Spring Share, prevents the Bar from dragging on the ground, thus doing away with all side-draft and enabling us to use a 7-foot bar, thereby accomplishing a feat which cannot be done by other machines.

The 7-foot Mower is as Light Draft and as easy to handle as any 4-foot Cut Mower made.

Remember with two horses and one man the 7-foot Mower will cut 20 acres of grass per day.

SIZE OF MACHINES:

3 Feet. 4 Feet. 6 Feet. 7 Feet.

Send for Circulars.

FARMERS' UNION,

San Jose, Cal., Agent for California.

Keiser & Koch.

The LARGEST CARRIAGE and HARNESS REPOSITORY in the County.

Buggies, Spring Wagons, Harness, Saddlery, Robes and Whips.

HARNESS REPAIRING.

132, 134, 136 and 138 Santa Clara St., opp. Post Office, SAN JOSE, CAL.

Cheaper than the Cheapest.

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120 Front Street, San Francisco,

GENERAL AGENT FOR PACIFIC COAST FOR FOLLOWING SPECIALTIES:

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Blymyer Church and Fire Bells.

BUTCHER MACHINERY:

Draw-Cut Choppers,
Draw-Cut Stuffers,
Lard Presses,
Tanking Outfits,
Steam Jacket Kettles,
Zimmerman Meat Cutters,
Zimmerman Meat Mixers,
Lard Cooling Pans.

"VICTOR" and "NILES"

SORGHUM and SUGAR MILLS,

—AND—

COOK EVAPORATORS.

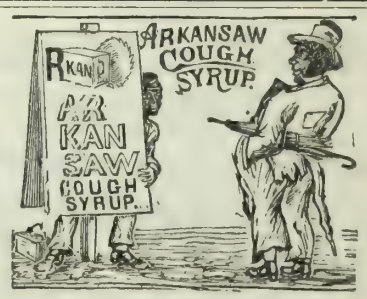
Horse Powers, Wood-Saw Machines.

STEAM ENGINES and BOILERS,

From 1½ Horse Power upward.

Please send for Illustrated Price List of such goods as you require.

Delivery made from San Francisco or factories.



THE Sign of the Arkansaw Cough Syrup is looking you all square in the face.

Do you want a sure, safe and reliable Cough Syrup? Are you troubled with a Cough, Cold, Bronchitis or Lung Complaint? Do your Babies keep you awake all night with Hacking Coughs, Colds in the Head, etc. Do you want something reliable in the house to meet these emergencies? We answer to all: "Go to your Druggist and get a Bottle of the Arkansaw Cough Syrup, and be troubled no more." Price, 50 cents per Bottle!

For Sale by all Druggists.

GO TO THE OLDEST and BEST!

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Full Business Course.

SIX MONTHS' COMBINED COURSE, $75.

Including the Business Course, Academic Course, Modern Languages, Telegraphy, Shorthand, Type-Writing, etc Ladies admitted into all Departments. Day and Evening Sessions during the entire year.

CALL OR SEND FOR CIRCULARS.

APRICOT, PEACH, PEAR, APPLE

And other Trees for Sale

AT WHOLESALE OR RETAIL, AT CHEAP RATES.

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P. O. Box 304. Los Angeles, Cal.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

T. D. MORRIS, Sonoma, Cal. Tuolouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $30; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

T. D. MORRIS, Sonoma, Cal. Extra fine Wyandotte Cockrels for sale cheap. Address, inclosing stamp.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

O. J. ALBEE, Santa Clara, has the finest fowls this season he has ever raised. Parties needing new blood will do well to write him before buying. Also Scotch Collie Pups. Prices to suit the times.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

H. J GODFREY, San Leandro, Cal., first-class P. Rocks and Wyandotte eggs, $2 per setting; no circulars

PABLO POULTRY YARDS, San Diego, Cal. Large establishment. Send for catalogue.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

PIEDMONT POULTRY YARDS, J. N. Lund, Box 116, Oakland, Cal.

HORSES AND CATTLE.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

T. P. A. WILLIAMS, Columbia, Boone Co., Mo., breeder and importer of Thoroughbred Herefords.

W. J. MARSH & SON, Dayton, Nevada. Registered Shorthorns of choicely bred strains.

H. van der STRATEN, Hopland P. O., Durham Valley Farm, Mendocino Co., breeder of Shorthorn Cattle (registered). Young stock for sale.

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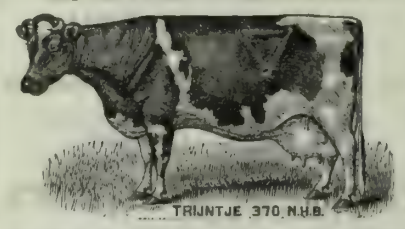
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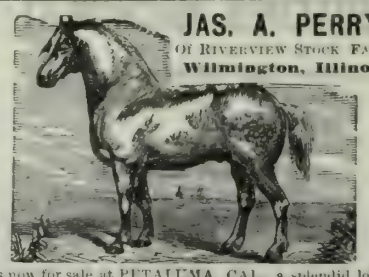
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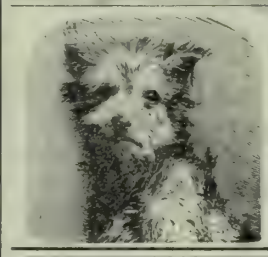


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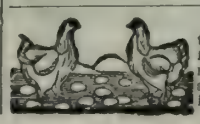


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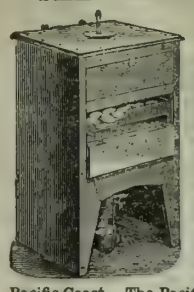
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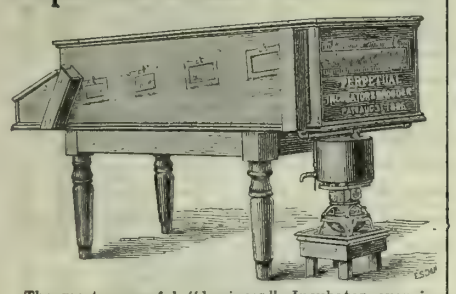
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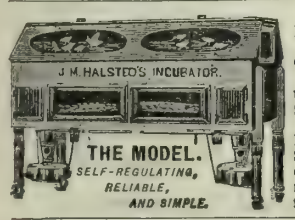
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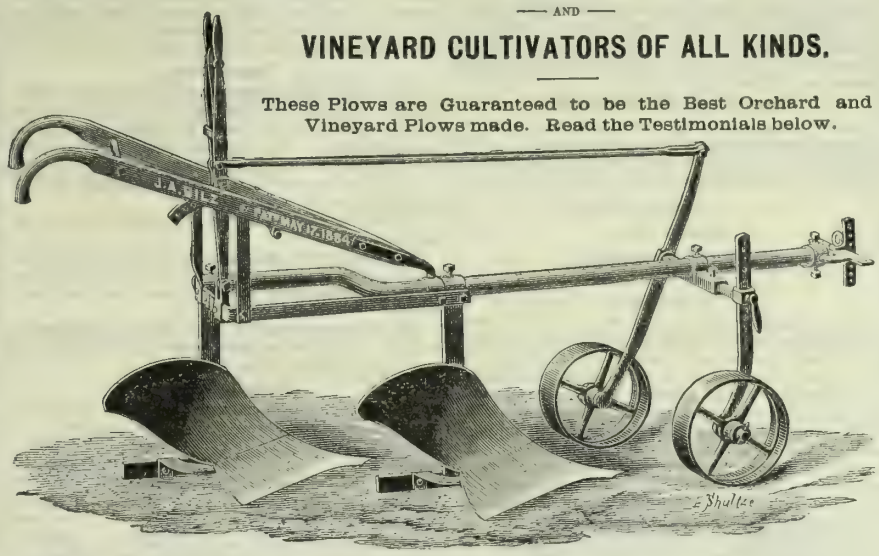
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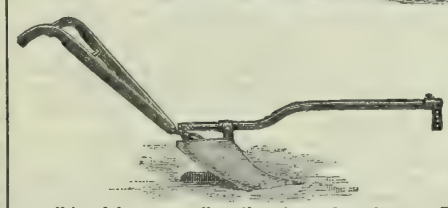
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The single plow can be set to any position, and can be run to or from the trees or vines and within an inch of them without any injury to the same. The handles are also movable, and can be changed from one side to the other to suit the circumstances. This plow has several advantages over all other Vineyard and Orchard plows. Among these are: By changing the beam, no matter to or from the land, the plow will always run in a straight line. By the revolving drop clevis, the plow can be set to or from the land, or in depth. With this plow a man can plow a straight furrow, when he could not with other plows where the beam runs across them. It works as well in adobe or gravelly soil as in sandy or loamy. The plow weighs about 50 pounds. This plow will fill a long-felt want among orchard and vineyard men, who fully appreciate its great value. Plow and Singletree patented May 17, 1884.



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J. A. BILZ—Dear Sir: I take pleasure in testifying to the good merits of the plow and harrow made by you, which I have used at my vineyard to my entire satisfaction. WM. PALMTAG.

RUBY HILL VINEYARD,
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J. A. BILZ, ESQ., Pleasanton, Cal.—Dear Sir: Your two-horse Vineyard Gang Plow is a great success. It saves $2 a day over the old method of plowing, and is light in draft. We have two of them with which we turned under weeds this last spring over a foot high, and left the land in excellent condition. CRELLIN BROS.

CRESTA BLANCA VINEYARD,
LIVERMORE, CAL., Nov. 27, 1886.

MR. J. A. BILZ—Dear Sir: I have tried several vineyard plows on my place, but none have given such good satisfaction as yours. I take pleasure in recommending it to those who desire good work done economically.
CHAS. A. WETMORE.

FRESNO VINEYARD, April 9, 1886.

I have tried Mr. Bilz's double plow, and although very skeptical at the time, I must acknowledge it worked well, and I am much pleased with it. I have made up my mind to put them in the vineyard.
D. D. HUDSON, Supt.

PLEASANTON, Sept. 9, 1886.

J. A. BILZ, ESQ.—Dear Sir: I take pleasure in recommending your two-horse Vineyard Plow which I know to be a success, having purchased three of them in plowing in the past season, in my vineyard. Undoubtedly, they are the best implement of the kind I ever used. They are light in draft. It turns the ground over well, and is so regulated you can plow any depth you desire, and it leaves the ground even. It also turns the weeds under better than other plows I have used. I have saved $2.50 per day on each plow. I would not be without the plow for twice their cost. Yours truly, J. A. ROSE.

LIVERMORE, August 1, 1886.

J. A. BILZ, ESQ., Pleasanton, Cal.—Dear Sir: We have used one of your Vineyard Gang Plows during the past season and believe it to be a good plow, doing the work in a thorough and economical manner, and can heartily recommend it to those wishing an implement of this kind. Yours respectfully, S. OSTERHOUT.

LIVERMORE, Feb. 1, 1886.

MR. J. A. BILZ—Dear Sir: I have tried your vineyard plow and find that it works well and gives perfect satisfaction, and I take pleasure in recommending it to any one who wishes a good vineyard plow. Your patent singletree is also a success, and when used in an orchard will save many a tree from being injured. Yours truly,
F. KURTZ, Foreman of C. A. Wetmore's Vineyard.

Persons interested in Vineyards and Orchards are invited to call at my shop and examine and try the plow. It is warranted to do all claimed for it. For further particulars apply to

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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 2, 1887.

The past week has been a repetition of its predecessor so far as regards trading in cereals. Many look for more activity after next Monday, owing to that day being the time for assessing property. The cold rains continue retarding vegetation in the middle and northern counties, but the southern counties are contributing more freely. The English wheat market has ruled weak, but to-day private cables give the market stronger, although semi-public cables are weak. The following is to-day's semi-public cable:

LONDON, March 2.—Cargoes off coast, quiet but steady; cargoes on passage and for shipment, slow; New York advices cause a depression; Cal. wheat off coast, 36s to 36s 3d; Cal. wheat just shipped, 37s 3d; Cal. wheat nearly due, 36s 3d; English country market, firm; French country market, firm; Liverpool wheat, spot, inactive; Liverpool wheat, Cal., 7s 3¼d to 7s 6¼d.

Foreign Review.

LONDON, Feb. 28.—The *Mark Lane Express* in its review of the movements of the British grain trade during the past week says: Native wheat in both the London and provincial markets is steady at previous rates. The sales of English wheat during the week are 40,471 quarters at 32s 7d, against 68,823 quarters at 29s 3d, during the corresponding period of last year. Foreign wheat is quiet. Corn is weak. Seventeen cargoes of wheat have arrived; six cargoes were withdrawn and seven remained. At to-day's market flour was dull under large arrivals, and American brands were 6d lower. Corn was cheaper. Barley and oats were dull and declined 3d. Linseed was 1s cheaper.

Eastern Wool Markets.

NEW YORK, Feb. 27.—There was no great amount of business this week, but Texas descriptions continued to be taken in good quantities on concessions. The position of the market was unchanged in most other respects. Fine fleeces were offered freely at 35c, and would probably be shaded below that figure. Medium wools were firm at 36@38c, and the demand is relatively fair. The improved condition of the woolen goods market gives a somewhat better tone to business in wool, but the caution with which clothiers place their orders forbids any buoyant feeling among dealers. The sales of the week included 2500 pounds scoured Colorado at 55c; 7000 pounds scoured Oregon at 56½c; 3000 pounds of scoured California at 55c.

In Philadelphia, the activity has been confined to a few houses, and the market as a whole has continued quiet. Among the sales were 3000 pounds of Territory fine at 25c; 25,000 pounds Eastern Oregon fine medium at 21c; 13,000 pounds Montana medium at 27c; 50,000 pounds Oregon original at 29c.

At Boston, the tone is unsatisfactory, and as reported last week, a little pressure either way would have an immediate effect. Among the sales were 177,000 pounds of Territory at 19@26½c; 75,000 pounds Eastern Oregon at 17@22c; 3000 pounds spring California at 26c; 6000 pounds fall California at 16@20c.

BOSTON, March 1.—Wool is in moderate demand, with prices in buyers' favor. Ohio and Pennsylvania fleeces, 32½@33c per lb for X; do 34@35c for XX; Michigan X, 31½@32c; No. 1 Ohio, 37c; Ohio fine delaine, 36c; Marcn, 34@35c.

California Fruit in Chicago.

CHICAGO, Feb. 27.—The market is still loaded with Florida oranges, and the shipments from California have been curtailed somewhat on account of bad weather prevailing on the Pacific Slope. The demand is growing better for all varieties of oranges. The supply on hand is of a pretty fair quality, but there is not much fine fruit to be found anywhere in the market. Florida oranges bring somewhat lower prices here than those from California, because they are not up to the California fruit in quality. Bright Riversides are quoted at $2.75@3.25; Navel oranges, according to quality, $3@6. The volume of trade is generally reported as rather light. All descriptions of dried fruits are ruling quiet, with the exception of choice bright apples. The quietness of the market is due to orders from the country being rather restricted, on account of bad weather and roads. Some old peaches are coming forward and meeting with moderate sale. New peaches are scarce. The old fruit coming on the market shows very good condition. Sales of California dried fruits are moderate, and prices rule steady. The stock is moderate, with the exception of raisins, which are quite plenty. Prunes, French, per pound, 7@9c; plums, pitted, per pound, 10@11c; peaches, halves, 11@12½c; halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London layers, 20-lb boxes, per box, $1.35@1.40; loose Muscatel, $1.25@1.50.

New York Wheat Market.

NEW YORK, Feb. 27.—Wheat, the past week, has ruled very irregular. The export trade was good and the milling demand fair. Options were fairly active, closing steady at the best figures. March, 88¾; May, 90½@$1.04; April, 89⅝@89¾; June, 91; July, 91⅜; August, 91⅜; and September, 92⅝.

California Products in New York.

NEW YORK, Feb. 27.—Honey—The market is strengthening under a steady reduction in the available supply. The sale of 18,000 pounds white California at 5c is reported, and this price is firmly demanded for additional quantities; amber, quoted at 4¾c.

Dried and Canned Fruit at the East.

NEW YORK, Feb. 27.—Canned—There is a moderate jobbing inquiry for various descriptions, though no large transactions have transpired. Tomatoes, firm, with $1.10 quoted as the inside price; corn, steady, with good grades scarce; Lima beans are obtainable at $1.40@1.50; white cherries are strong, $1.40 being now the holders' lowest limit; California peaches, $2.50; pears, $2.50; plums, $1.75@2; grapes, $1.75@2; apricots, $2.10.

Raisins—Buyers continue indifferent, but in most instances holders are not attempting to urge distribution by offering concessions. At an auction sale on Friday, Valencia raisins sold down to 4⅝@4¾c for off stalk and 7⅛@7¼c for layers; the market then steadied up and closed at 5@5½c for the former, as to brands, and 7⅜@7½c for the latter. Malaga and California remain very quiet at nominally unchanged prices. Loose Muscatel, three-crown, $1.50; London, $1.50@1.65.

Prunes—Turkish, quiet and easier; quoted at 5⅜@5½c. French are freely offered at 8@8¼c.

Citron—Firm at 18@18½c.

Currants are in moderate jobbing request at 4½@4⅝c.

Crops at the East.

CHICAGO, Feb. 27.—The *Farmers' Review* crop summary for this week is as follows: The winter wheat fields, except in Michigan and Wisconsin, have been bare for two weeks and subjected to varying mild and cold weather, but except in Kansas, the outlook for the crop continues to be reported as promising. The best reports come from Ohio, Indiana, Michigan, Wisconsin, and Missouri, while the outlook in Illinois is fair. There is a very light corn movement in Illinois and in all the States west and southwest of Illinois.

New York Hop Market.

NEW YORK, Feb. 27.—Business continues of moderate proportions, with no improvement in the demand. Coast crop of 1886, best, 21@23c; do, common to good, 16@19c; 1885, good to prime, 8@12c.

[COMMUNICATED.]

Market Information.

Cereals.

Advices from abroad do not report any material change either regarding the wheat crop or the market. Stocks in England, Germany, and France are being gradually reduced under a steady consumptive demand. While the low prices abroad have stimulated consumption, speculators are slow to take hold, owing to the facilities for securing supplies within a few days' notice—electricity and steam having revolutionized the old methods of doing business. At the East, the visible supply continues in excess of last year at this date, although a steady lessening in the visible supply is reported. The exports from the United States, from July 1 to February, compare as follows with flour reduced to wheat: 1886–87, 79,514,288 bushels; 1885–86, 38,261,465. This gives a total increase for the first seventh month of the present crop year, compared with the like time in 1885–86, of over 41,000,000 bushels. Crop advices, from the Western States are virtually unchanged; the outlook is favorable for the usual outturn, but as yet no correct estimate can be formed. On this coast, our advices are unchanged. The bag ring, as usual, are estimating on a very heavy outturn, with fully 150,000 tons more for export the coming season than the present. Our advices do not warrant any such high estimate, although whether the surplus will reach, for the season of 1887–88, 750,000 short tons, will depend on the weather. As yet it is not safe to place the surplus at over 500,000 short tons. The growing plant is looking exceedingly healthy and well stooled out, but the acreage seeded, taking the State as a whole, is fully 25 per cent less than last year. The local wheat market, the past week, was fairly steady, made so by stocks being well concentrated and an increasing supply of idle tonnage in port, and a larger tonnage on the way than at this time last year. Transactions in the sample market were few, with buyers and sellers apart; to sell, buyers' bids had to be accepted, and to buy any sized parcels, sellers' offer had to be paid. The stock on hand March 1 in this city and Port Costa aggregated 77,249 tons, against 83,307 tons on first of last month.

The stock of barley in the city warehouses was, on March 1, 18,474 tons, against 19,150 tons the first of last month. The past week witnessed a fairly steady market, with few fluctuations in values. Buyers hesitated to operate freely, owing to next Monday being tax-assessment day. It is claimed that the bulk of the stock in this city is held by Call Board manipulators. The consumption continues free.

Corn is without any particular change to note. The demand is of an offish character, owing to large stocks here and free shipments on the way. The stock in this city on March 1 was 1863 tons, against 1362 tons the first of last month. This is an increase of 500 tons, notwithstanding last month's total receipts were over 190 tons in excess of the January receipts.

The market for oats has ruled dull and quiet. Buyers continue to confine their purchases to near-by wants, thus keeping prices down under free receipts from the Western States.

Commission merchants report light trading in rye, with quotations unchanged.

The stock of buckwheat is said to be in excess of the demand, although dealers are trying to hold up prices.

According to the Cincinnati *Price Current*, the wheat requirements for consumption for the next five months will be "approximately 119,000,000 bushels, leaving 60,000,000 available for export; consumption last year for corresponding time, 116,000,000 bushels; exports, 52,000,000." If the above is correct, and the exports from the United States up to July 1 reach the same proportion they did for the like time in 1886, then the carry-over into the next season will be less than ever before known in the wheat history of this country.

Feedstuffs.

Bran is higher, but middlings are unchanged. Feedmeal, ground barley and oilcake meal are unchanged. The demand is only fair.

Hay is steady, with a freer consumptive demand reported. Receipts have only been moderately fair. The supply in the country is said to be not much, if any, above an average at this season of the year.

Fruits.

Apples are steady at full prices. Eastern apples are in fair supply, with more on the way.

Oranges are in free stock, necessitating concessions so as to close out consignments. Shipments to the north are free.

Limes are firm at an advance. Lemons are unchanged.

Raisins are reported to be moving slowly, even concessions not enticing buyers, owing to their lightness.

Dried fruits hold to steady prices, with the more choice in good inquiry. The consumption is reported to be larger than at this time last year.

Live-Stock.

Beef cattle are reported steady, as are mutton sheep. The consumption is said to be light. The price of sheep depends very materially on the length of the wool. Lambs and small calves are in good inquiry. Hogs are stiffer, with another advance obtainable. Milch cows are in better demand. Horses continue dull, the weather being against them at present.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 6@6½c; wethers, 7@7½c.

LAMB—Spring, 12½@15c. Yearlings, 7@8c.

VEAL—Large, 7@8c; small, 9½ to 10c.

PORK—Live hogs, 4@4½c for heavy and medium; hard dressed, 7@7½c per lb; light, 3¾@4¼c; dressed, 6½@7c; soft hogs, live, 3@3½ c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Potatoes continue very strong under light stocks, light receipts, and a good demand. Choice to extra choice sold the past week at a slight advance on top quotations. The supply to come forward from Oregon and Washington Territory is light.

New potatoes continue to arrive sparingly, but the quality is greatly improved.

Onions are steady, with a firm tone reported for more choice.

The demand for cabbages was fully up to previous weeks, to fill distant orders. It is claimed that at times an advance was had for some of the more choice.

The Southern counties send small consignments of early spring vegetables, which are cleaned up every day at fancy prices.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	203,899	166,509
In port, disengaged	121,463	61,840
In port, engaged	18,876	57,214
Totals	344,238	285,563

The above gives a carrying capacity as follows: 1887, 550,786 short tons; 1886, 456,900 short tons; increase over last year, 93,886.

Tonnage on the way and also in port continues to increase, causing exporters to bid down for ships.

Beans show another advance for choice, but not for other grades.

Honey is very strong, with Eastern buyers more anxious.

Hops are reported very dull, but then this always is obtained at this season of the year. The stock on this coast is claimed to be light.

Hides and tallow are weak, but no lower.

Quails are out of season; other game varies according to the daily supply.

Turkeys have ruled weak, but other poultry were fairly steady, notwithstanding a lessened demand.

Local Markets.

BAGS—The market is quiet, but strongly held at full figures, owing to the stock of standard Calcuttas being well concentrated. Calcuttas are quoted at 6⅜ to 6¾c for June–July delivery.

FLOUR—The market is weaker. The demand is slow for export, but fairly steady for the home trade.

BARLEY—The market has ruled weak and easy throughout the week under freer offerings so as to avoid paying taxes. On Call, the bears have sent prices down gradually, with a weak market to-day. Sales on Call to-day were as follows:

Morning Session: Buyer season—800 tons, 99⅝c; 800, 99½c; 200, 99⅜c; 500, 99¼c; 300, 99⅛c; 1200, 99c; 100, 98⅞c; 500, 98¾c; 900, 98½c; 300 98⅜c. Seller season—100 tons, 95c. May—200 tons, 96c; 100, 95½c. No. 1 Brewing, buyer season—200 tons, $1.14½; 200, $1.14¼ ₩ ctl. Afternoon Session: Buyer season—600 tons, 98c; 1600, 97¾c; 500, 97⅝c. May—100 tons, 95¼c; 100, 95½c. No. 1 Brewing, buyer season—100 tons, $1.14¼ ₩ ctl.

BUTTER—The market continues to rule easy under liberal supplies and an offish demand, owing to dealers confining purchases to actual trade wants.

CHEESE—The market is easy under more liberal supplies, and buyers only purchasing in a small way under the impression that receipts will increase.

EGGS—The consumption is large, but receipts are also large, which operate against an advance.

WHEAT—Trading is reported to have been light throughout the week. Exporters report considerable difficulty in having their wants met at less than $1.50 for even fair No. 1 shipping; yet if a parcel was pressed on the market they bid less. On Call, transactions have been fair at strong prices. The following are to-day's sales:

Morning Session: Buyer season — 100 tons, $1.56¾; 1700, $1.57. Buyer 1887—100 tons, $1.60⅜; 500, $1.61⅜ ₩ ctl. Afternoon Session: Buyer season—5400 tons, $1.57¾; 600, $1.57⅜. Buyer 1887—100 tons, $1.61¾; 800, $1.62. Seller 1887—100 tons, $1.46⅞ ₩ ctl.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

A SMALL CYCLONE.—The advertisement of the Pacific Manufacturing Company will be found on page opposite Market Report. The company is now turning out lots of mills and selling 10-foot wheels at $50. For small families these 10-foot mills come very handy.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 2, 1887.

BEANS AND PEAS.				-Peanuts		4½@ 5
Bayo, ctl	1 65	@	1 90	Filberts		10 @ 11
Butter	1 40	@	1 75	Hickory		7 @ 8
Pea	1 75	@	2 00	**POTATOES.**		
Red	1 25	@	1 50	Burbank	1 75	@ 2 25
Pink	1 40	@	1 55	Early Rose	1 30	@ 1 65
Large White	1 75	@	2 00	Cuffey Cove	1 50	@ 1 75
Small White	1 75	@	2 00	Jersey Blues	1 50	@ 2 00
Lima	2 00	@	2 45	Petaluma	—	@ —
Fid Peas, blk eye	1 00	@	1 05	Tomales	1 30	@ 1 75
do green	1 00	@	1 12½	River reds	1 30	@ 1 60
do Niles	1 25	@	—	Humboldt	—	@ —
BROOM CORN.				do Kidney	—	@ —
Southern per ton	50	@	75	Chile	—	@ —
Northern per ton	50	@	75	do Oregon	1 65	@ 2 00
CHICORY.				Peerless	1 60	@ 2 00
California	4	@	4½	Salt Lake	—	@ —
German	6½	@	7	New Potatoes	2½	@ 3½
DAIRY PRODUCE, ETC.				**POULTRY AND GAME.**		
BUTTER.				Hens, doz	6 00	@ 8 00
Cal. fresh roll, lb	15	@	17½	Roosters	5 50	@ 8 50
do Fancy br'nds	19	@	21	Broilers	5 00	@ 7 00
Pickle roll	15	@	16½	Ducks, tame	5 00	@ 7 50
Firkin, new	15	@	16	do Mallard	3 00	@ —
Eastern	—	@	—	do Sprig	1 00	@ —
CHEESE				Geese, pair	1 50	@ 2 50
Cheese, Cal., lb	13	@	17	do Goslings	—	@ —
Eastern style	15	@	17	Wild Gray, doz	75	@ 1 50
EGGS.				Turkeys, lb	13	@ 15
Cal., ranch, doz	21	@	22½	do Dressed	14	@ 16
do, store	20	@	21	Turkey Feathers, tail and wing	10	@ 20
Ducks	—	@	—	Snipe, Eng., doz	—	@ —
Oregon	—	@	—	do Common	—	@ —
Eastern	18	@	20	Doves	75	@ 85
Utah	—	@	—	Quail	—	@ —
FEED				Rabbits	1 00	@ —
Bran, ton	15 00	@	16 00	Hare	1 25	@ 1 75
Cornmeal	23 00	@	24 00	Venison	8	@ 10
Gr'd Barley ton	24 00	@	—	**PROVISIONS.**		
Hay	9 00	@	14 00	Cal. Bacon, Heavy, lb	8½	@ 9
Middlings	21 00	@	23 00	Medium	8½	@ 9
Oil Cake Meal	26 50	@	28 50	Light	10½	@ 11½
Straw, bale	40	@	60	Extra Light	12	@ 12½
FLOUR				Lard	7	@ 10½
Extra, City Mills	4 25	@	4 75	Cal. Smoked Beef	11½	@ 12½
do Co'ntry Mills	3 81	@	4 25	Hams, Cal	10	@ 12½
Superfine	3 00	@	3 75	do Eastern	13	@ 14
GRAIN, ETC.				**SEEDS.**		
Barley, feed, ctl	97½	@	1 02½	Alfalfa	9	@ 10
do Brewing	1 05	@	1 15	Canary	3½	@ 4
Chevalier	1 45	@	1 60	Clover red	12	@ 13
do Coast	90	@	1 45	White	17	@ 18
Buckwheat	1 00	@	1 20	Cotton	20	@ —
Corn, White	1 00	@	1 07½	Flaxseed	2½	@ 2¾
Yellow	1 00	@	1 05	Hemp	4	@ 4½
Small Round	1 05	@	1 15	Italian RyeGrass	25	@ —
Nebraska	97½	@	1 02½	Perennial	7	@ 9
Oats, new	—	@	—	Millet, German	4½	@ 5
Choice feed	1 50	@	1 57½	do Common	1	@ 10
do good	1 40	@	1 47½	Mustard, white	3	@ 3½
do fair	1 30	@	1 37½	Brown	2 25	@ 2 75
do black	1 40	@	1 55	Rape	1	@ 1½
do Oregon	1 30	@	1 60	Ky. Blue Grass	11	@ 15
Wheat milling, Gilt edged	1 55	@	—	2d quality	11	@ 12
do choice	1 50	@	—	Sweet V. Grass	75	@ —
do fair to good	1 47½	@	—	Orchard	20	@ 25
Shipping choice	1 50	@	—	Red Top	15	@ —
do good	1 46½	@	1 47½	Hungarian	8	@ 10
do fair	1 45	@	—	Lawn	30	@ 40
HIDES.				Mesquit	10	@ 12
Dry	—	@	16	Timothy	5½	@ —
Wet salted	8	@	9½	**TALLOW**		
HONEY, ETC.				Crude, lb	2	@
Beeswax, lb	20	@	22	Refined	6	@
Honey in comb,	9	@	12	**WOOL, ETC.**		
Honey in comb, fancy	12	@	13½	SPRING—1886		
Extracted, light	4	@	4½	Humboldt and Mendocino	22	@ 25
do dark	3½	@	4½	Sac'to valley	17	@ 20
HOPS.				Free Mountain	17	@ 20
Oregon	17½	@	22½	N'hern defective	—	@ —
California	15	@	22½	S Joaquin short	14	@ 18
ONIONS.				do long	—	@ —
Pickling	—	@	—	Cava'v & F'th'l	—	@ —
Silversain	1 50	@	2 50	Oregon Eastern	17	@ 22
NUTS—JOBBING.				do valley	23	@ 25
Walnuts, Cal., lb	12½	@	13½	Southern Coast	13	@ 17
do Chile	—	@	—	FALL—1886		
Almonds, hd shl	5	@	7	Southern, free	17	@ 20
Soft shell	15	@	19	do defective	12½	@ 19
Paper shell	18	@	20	Northern, free	20	@ 23
Brazil	11½	@	13	do defective	15	@ 20
Pecans	9	@	11	Middle free	18	@ 21
				do defective	15	@ 18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 2, 1887

Apples, bx com	75	@	1 25	Nectarines		8 @ 10
do choice	1 75	@	2 50	do evaporated		16 @ 18
Bananas, bunch	2 00	@	3 25	Peaches		8 @ 10
Blackberries, ch	—	@	—	do pared		18 @ 20
Canteloupes, cr	—	@	—	Pears, sliced		5 @ 6
Cherries blk	—	@	—	do qrtd		4 @ 5
do Royal Ann	—	@	—	do evaporated		8 @ 10
Cherry plums	—	@	—	Plums, pitted		9 @ 10
Crabapples	—	@	—	do unpitted		3 @ 5
Cranberries	10 00	@	12 50	Prunes		6 @ 10
Currants chest	—	@	—	do French		10 @ 13
Figs, bx	—	@	—	Zante Currants		8 @ —
Grapes	—	@	—	**RAISINS.**		
do Rose Peru	—	@	—	Dehesa Clus, fcy	2 40	@ 2 50
do Muscat	—	@	—	Imperial Cabinet, fancy	1 75	@ —
do Tokays	—	@	—	Crown London Layers, fcy	1 50	@ —
Isabel	—	@	—	do Loose Muscatels, fancy	1 40	@ —
Wine, Zinfandel	—	@	—	do Loose Muscatels	1 35	@ —
do Mission	—	@	—	Cal. Valencias	1 25	@ —
Limes, Mex	12 00	@	13 00	do Layers	1 25	@ —
do Cal. box	1 00	@	1 75	do Sultanas	1 25	@ —
Lemons, Cal., bx	1 25	@	1 75	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.		
do Sicily, box	2 00	@	3 00	**VEGETABLES.**		
do Australian	—	@	—	Artichokes, doz		— @ —
Nectarines box	—	@	—	Asparagus ₩ lb		15 @ 16
Oranges, Com'bx	1 50	@	2 00	do cultivated		— @ —
do Choice	2 25	@	3 00	Okra, dry, lb		15 @ 20
do Navels	2 50	@	4 50	do green box		— @ —
do Panama	—	@	—	Parsnips, ctl		1 50 @ —
Peaches, bx	—	@	—	Peppers, dry lb		10 @ —
do bask	—	@	—	do green, lb		22½ @ 25
Crawfords, bx	—	@	—	Pumpkins pr ton		— @ —
do bskt	—	@	—	Squash, Marrow fat, 100	15 00	@ 18 00
do choice	—	@	—	do Summer bx		— @ —
Pears bx	—	@	—	String beans lb		— @ —
do choice	—	@	—	Tomatoes box	2 00	@ —
do Bartlett, bx	—	@	—	Turnips ctl		25 @ 60
Persimmons, Jap, bx	—	@	—	Beets, sk		75 @ —
Pineapples, doz	4 00	@	5 00	Cabbage, 100 lbs	1 30	@ 1 55
Pomegranates, b	—	@	—	Carrots, sk		35 @ —
Prunes bx	—	@	—	Cauliflower, doz		— @ —
do Egg	—	@	—	Eggplant, ₩ bx		12½ @ 15
Quinces bx	—	@	—	Garlic, lb		3 @ 3½
Raspberries ch	—	@	—	Green Corn, small box		— @ —
Strawberries ch	—	@	—	do large box		— @ —
Watermelons 100	—	@	—	Green Peas, lb		6 @ 7
DRIED FRUIT				Lettuce, doz		10 @ —
Apples, sliced, lb	5	@	6½	Lima Beans lb		— @ —
do evaporated	11	@	12½	Mushrooms, lb		25 @ 40
do quartered	4	@	5	Rhubarb lb		15 @ 17½
Apricots	13	@	15			
do evaporated	20	@	25			
Blackberries	9	@	11			
Citron	28	@	30			
Dates	9	@	10			
Figs, pressed	5	@	6			
Figs, loose	3	@	4			

DEATH OF LOUIS GRANDJEAN.—We hear with deep regret of the death of Louis Grandjean, who has been employed by the Viticultural Commission for some time, as assistant to Prof. W. B. Rising, in the analytical work which has been undertaken for the commission. Mr. Grandjean was good in his work, quiet and gentlemanly in his manner, and his death will be widely deplored.

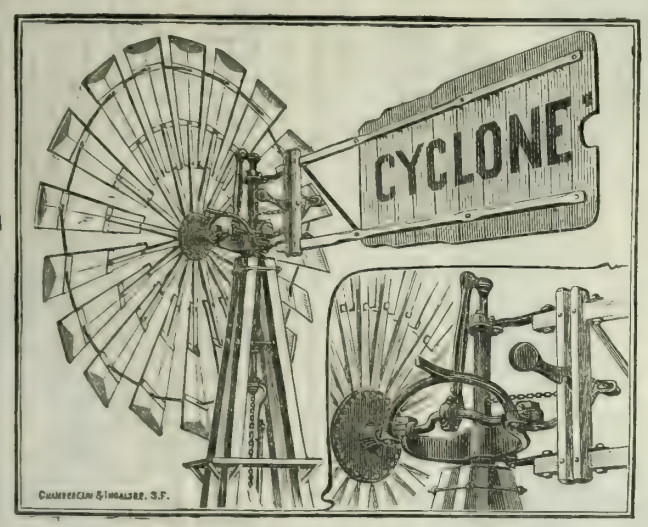
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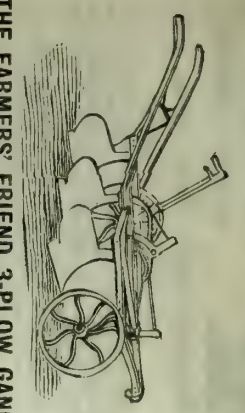
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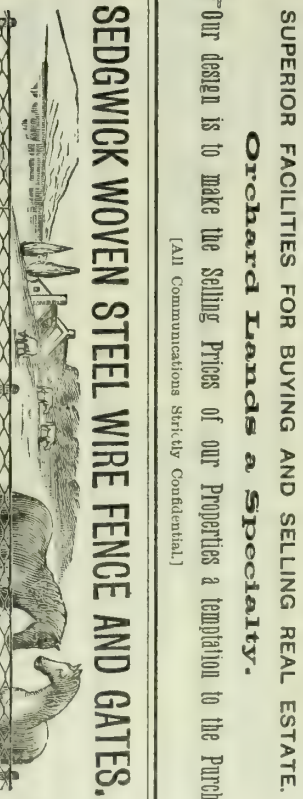
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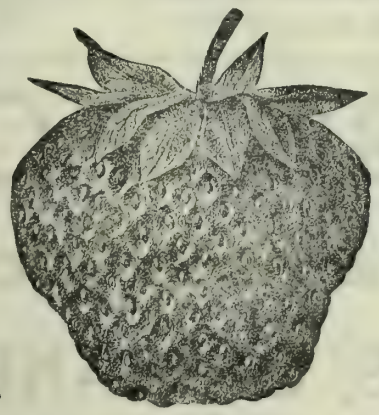
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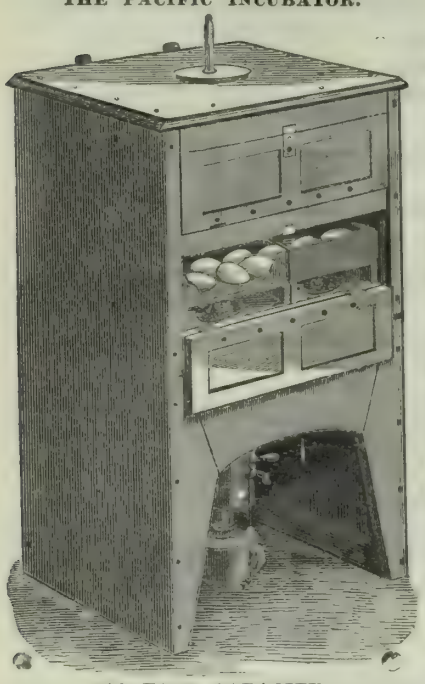
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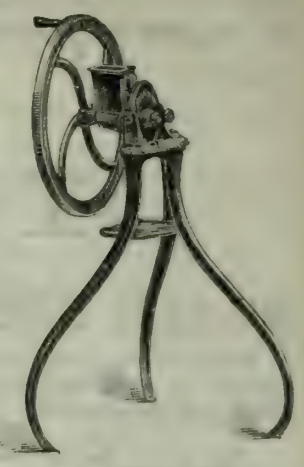
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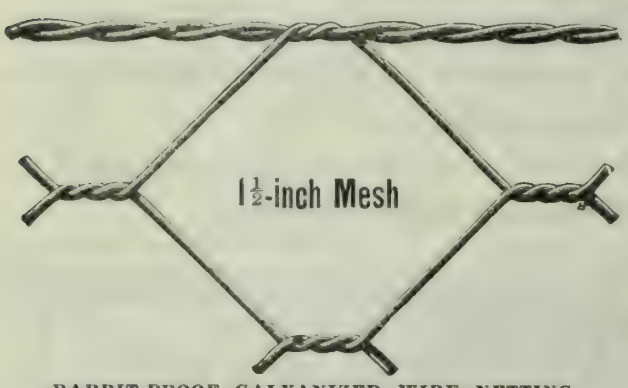
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PACIFIC RURAL PRESS

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The Cork Oak.

As we have started on the growth of the cork oak in this State, and the trees, now about 25 years old, have demonstrated the adaptation of our soil and situation to the tree, it is of interest to note corky information from the old producing countries. At the last meeting of the State Horticultural Society, Prof. Hilgard made some remarks, alluding to a recent French publication on the subject. It was shown that the supply of cork was diminishing, and that for certain purposes no good substitute for cork has yet been found. On the other hand, the uses of cork have multiplied. The cork plantations of France are becoming less in area and as yet little has been done to restore them. The subject is now being agitated in France, and the planting of cork oaks should be considered in all countries where it is likely to succeed. Of course such plantations must be considered in the light of permanent investments, and the benefits will accrue chiefly to our children and grandchildren, because of the length of time which must elapse before the trees are large enough for stripping.

There are two species of cork oak, the *Quercus suber* and *Q. occidentalis*. They adapt themselves to nearly all soils, but prefer lighter soils, the granitic and slate soils of the foothills for example, the distribution being probably something like that existing with our "blue oak." As for stripping the bark, there are two methods in vogue. The old style was to begin at the time the tree was 22 inches in circumference, at whatever age, but usually at 20 to 25 years. The first bark is coarse and full of seams and is only fit for coarse uses, such as grinding up for packing, etc. It is necessary to be careful in removing the bark and the section of bark removed should not be over 50 inches in length along the trunk. After the first removal the bark is removed about once in 10 years. Ordinarily there is a loss of 18 to 20 per cent in waste in the bark, and sometimes 50 pounds removed will only yield 20 pounds of good cork. The waste is largely occasioned by little holes and by big cracks. Many trees are lost after stripping by this method, and the bark when removed has to undergo a long process of drying, etc., so that the losses incident to the business are considerable.

In the new style of stripping, the first bark is replaced upon the tree after being separated, and the new bark growing under it is thus protected and the tree preserved from injury by the sun shining on the bare trunk. This method seems to be a great improvement over the old way. Taking into consideration the improvement in the quality of the cork, the advantage of the new method is estimated to be nearly one-quarter over the old. It is understood that in the removal of the cork, the stripper does not go down to the living layer, and therefore does not actually expose the wood.

Prof. Hilgard, in closing his remarks, alluded to a possible large demand for cork dust, in which to pack California fruits for shipment, and stated that samples had been shown him of a corky bark produced in large quantities in Yesso, Japan, which seemed to be well adapted for packing purposes. If it should be found so, it would probably prove of much value on this coast.

Young cork trees are now growing at the University from acorns produced upon trees in Calaveras and Los Angeles counties. A plantation has already been made on the bills back of the University, and it is expected that young cork trees will be ready for distribution next year.

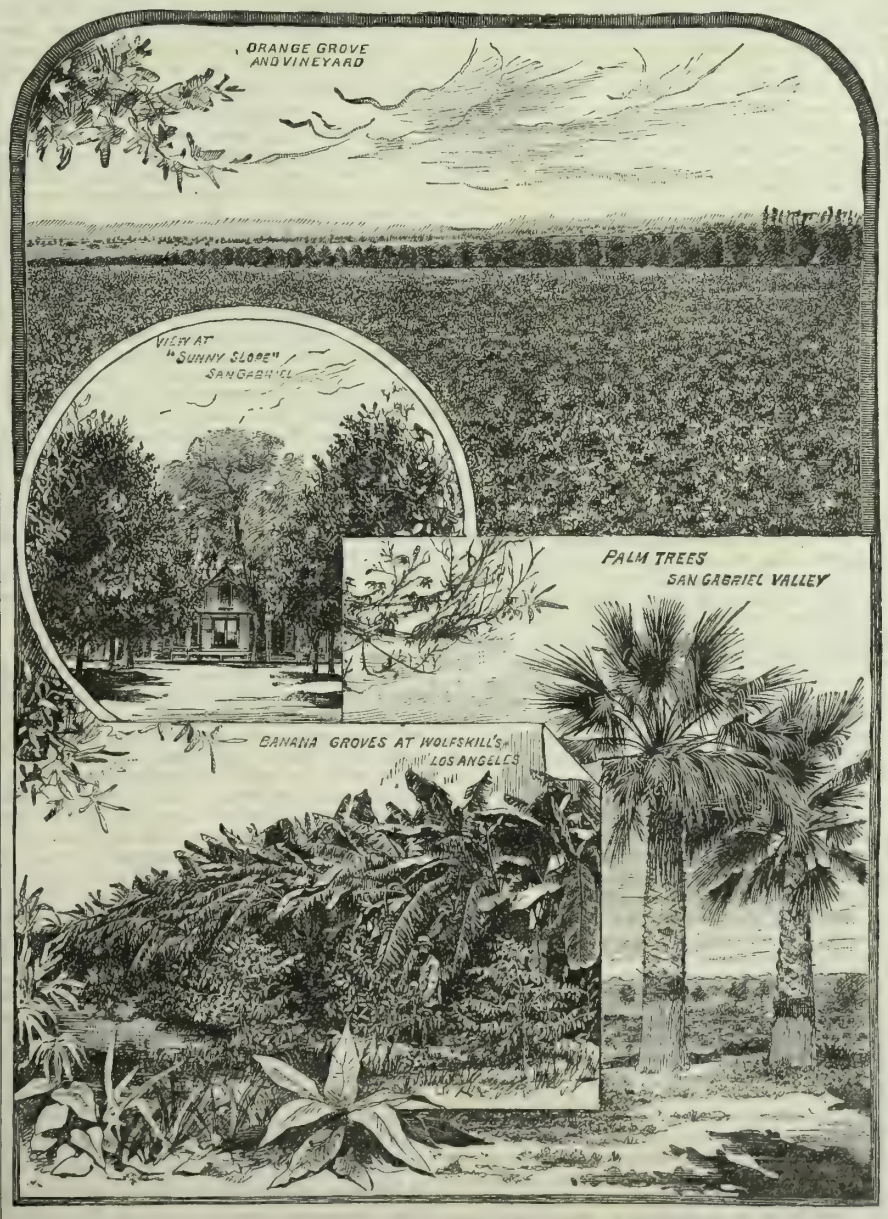
Colton Citrus Fair.

According to all reports received up to our going to press on March 9th, the Citrus Fair to open at Colton on March 12th will be an exposition worth going a long way to see. A San Bernardino exchange says that the people are all at work to make it a grand success, and where any community at any enterprise works together, their labors will be crowned with all they anticipate. It was telegraphed from Colton on Tuesday that "large exhibits will be made by Riverside, Crafton, Lugonia and other sections of the county. The Riverside newspapers heartily indorse the fair, and Riverside people will make large exhibits. Excursion trains will run from Los Angeles, San Diego and other points."

As we have stated before, Colton is in the center of a very prosperous group of settlements and has also peculiar excellence of its own. We trust the fair will be a grand success.

In Los Angeles County.

Our engraving presents a few scenes in the San Gabriel valley and a pretty view in the Wolfskill orchard in Los Angeles City, showing especially a row of banana plants thriving in the open air. The upper scene in the engraving will give a general idea of a vineyard and orange grove, while far beyond are the slim plumes of the eucalyptus. The San Gabriel valley is one of the grandest stretches of ground in California, of vast extent and varied adaptations, bringing forth under the magic wand of the irrigator a great profusion of valuable productions.



SCENES IN LOS ANGELES COUNTY, CALIFORNIA.

The view at Sunny Slope shows the residence of Hon. L. J. Rose, an agriculturist of great repute and popularity, who has done much to demonstrate what can be accomplished in California by the use of wisdom and earnest effort. Mr. Rose is at present a State Senator, and won much praise for his course during the present session. The palm trees on the right are the native California Fan palms (*Washingtonia filifera*), which is one of our grandest native plants. These views will give distant readers a little idea of some of the features of the San Gabriel valley, and form an acceptable addition to other engravings which we have given during the last few years.

Southern California Orange Shipments.

According to reports, preparations are better than usual this year to handle the great orange crop of Southern California. It is said that there are 867 new fruit cars at various points in Southern California waiting for the loading and shipment of oranges. All of them have been built recently, mostly by the Pullman Car Company, at their extensive works near Chicago, for the Union and Central Pacific roads, and were designed for the special purpose of carrying California oranges and grapes to the Chicago and New York markets. The Union Pacific owns 469 of the cars and the Central 398. Each car has a carrying capacity of 350 boxes of oranges. As the fruit shipments are to run on passenger train time, the cars are all equipped with air brakes. They are thoroughly ventilated from the outside; that is, all the ventilators in each car are attached to an iron bar with a handle projecting from the side of the car, which by a simple turn opens or closes the ventilators. As the shipper is allowed to send a man in each train, it is very little work for the latter to regulate the temperature of the cars when passing through cold or warm localities. The aggregate cost of the cars was about $500,000.

It was announced last week that already six trains of oranges, each composed of 14 of these cars, were on the way or had reached Chicago, and this week several trains were sent. It is now expected that there will be orange trains out of Southern California almost every day until the shipments become exhausted.

Death of Col. A. H. Webb.

The death of Col. A. H. Webb, secretary of the State Board of Horticulture, which occurred on March 2d, at his residence in Oakland, will be heard with regret by many. Col. Webb was a pioneer, having come to the State in '49. Except five years spent in Idaho, he lived most of the time in the mining districts of Northern California, engaging in mining and trade. Upon the reorganization of the State Board of Horticulture at the beginning of Gen. Stoneman's term, Col. Webb was chosen secretary, and served the board in that capacity up to the time of his death. He was liked by all for his genial and gentlemanly manner, and respected for his strict attention to his duties. He had been out of health for some months, but clung to his work too long for his physical good and so weakened his system that it could not shake off disease. He died peacefully and quietly, though he had suffered much during the last weeks of his life.

Col. Webb was a native of Tennessee, and was born in 1828. He leaves a widow, a son and a daughter to mourn his loss. The funeral services were held in Oakland on Thursday, March 3d. Unfortunately, adequate announcement was not made of his death, and many were prevented from paying the last tribute to his memory, because they were not informed of his demise. Suitable action will be taken at the next meetings of the State Horticultural Society and the State Board of Horticulture to testify the respect paid his memory by our fruit-growers.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Ventura County.

EDITORS PRESS:—Southern California is attracting a great deal of attention just now, and no part of it presents a better field for those who wish to make for themselves beautiful homes, with a delightful climate and superior advantages in many ways, than Ventura county. The Southern Pacific branch railroad, from Los Angeles to San Buenaventura, runs through the county from east to west. It is completed to Santa Paula, and will probably be finished to San Buenaventura by the middle of March. Several large ranches are being divided into small tracts, notably the "Sespe" ranch, which was divided among the heirs eight years ago, and now the several parts are being subdivided.

The "Southern Pacific Improvement Company" are cutting up 200 acres of the land belonging to the youngest heir west of the Sespe river. They have a side-track and station which is called "Sespe." The land will probably be sold in May, when the heir becomes of age.

The Los Angeles Land and Water Co. have bought the eastern portion of the ranch, and have a side-track where they intend to locate a town, which, I believe, they propose to call Fillmore. They are also taking out a large ditch from the Sespe river, which will probably cover both these tracts. Mr. Surdam has bought part of the tract on the south side of the Santa Clara river and covers nearly all of it with a ditch. There will be a town there, to be called Bardsdale.

Here will grow all the semi-tropical fruits peculiar to Southern California, as well as the northern fruits, except, perhaps, cherries and currants. Although Los Angeles feels hurt that Central California aspires to have a citrus belt of its own, even *they* don't raise the very best and brightest oranges that ever were. Los Angeles people that come here praise our oranges as being much sweeter than theirs, and exclaim at the peculiar brightness of the skin. (Of course *those* L. A. people are not in the orange business.) I do not know much about it by actual experience in regard to quality, but I do know that the oranges raised in the eastern part of this county are exceedingly bright in appearance and very nice. There are but few orange trees, comparatively, in this neighborhood, but enough to prove what can be done. Raisin grapes do exceedingly well, making very sweet and handsome raisins, said by good judges to be equal to any raised in the State. They do not grow to perfection or make good raisins less than 20 miles from the coast.

As for climate and soil, we have a great variety of both, so that the most fastidious could be suited. In San Buenaventura the temperature varies the least, perhaps, while further from the coast it is warmer days and cooler nights. Nothing one can say is too extravagant in some people's estimation, and others like to complain because the sun doesn't shine every day, ignoring the necessity of rain to enable us to raise the great variety of fruit we do without irrigation (excepting the orange and lemon, of course). Barley, corn, beans, flax, potatoes, and nearly everything raised elsewhere, is raised here without irrigation, excepting the years of drouth. The large Santa Clara valley between Santa Paula and San Buenaventura is like one vast prairie, where the grandest fields of corn and beans are raised of any in the State. The Colonia sends its immense crops of barley to Hueneme for shipment, and the Conejo and Ojai valleys contribute wheat. The Santa Clara valley produces fine apricots, better than farther from the coast, but peaches and grapes are better east of Santa Paula than elsewhere in the county.

The Ojai valley is a notable resort for consumptives and asthmatic people. The elevation is high and it is peculiarly free from winds.

The Matilijah hot springs, about 16 miles from San Buenaventura, are quite a resort for invalids. I have no land to sell, but shall be glad to see these large tracts of land cut up into small farms and brought to the highest state of cultivation of which they are capable. Speed the day. SISTER SUE.

Santa Paula.

Contra Costa Notes.

EDITORS PRESS:—You ask for an *item* from Contra Costa county. Items there are in abundance, but our local press is so alert in catching them, and publishing to the world, that there is little chance to give you anything that you will not have received from other sources.

Farmers present smiling faces, since the rain of the past month has given promise of abundant harvests. From six to eight inches of rain have fallen in the different parts of the county within the month of February.

The splendid reputation our fruits have obtained in the Eastern market the past season has induced the planting of large areas of fruit trees and vines. All the local nurseries have been "cleaned out" of pear, apricot and plum trees, and many have been brought in from outside nurseries. The young trees of local growth have been given the preference, on account of their more vigorous growth and freedom from insect pests. This is especially the fact in regard to vines, as phylloxera has not made its appearance as yet in the county.

In the planting of wine grapes there has been inquiry for only the best types. The little wine that has been made here, from the now approved varieties, has been of such excellent quality that we feel assured of the highest success in the direction of choice table wines. To those who are experienced in the wine industry, and are familiar with the soil and climate of this county, it has always been a surprise that so little has been done to develop this industry. In fact, it is unaccountable that so little is known of Contra Costa county outside of its limits. With a soil not excelled by any portion of the State, yielding every product of the semi-tropic and temperate zones; a climate that is almost perfect; sheltered from the harsh winds and fogs of the "bay" by its coast line of hills and from the hot blast of the northers by its wide expanse of river and tide and marsh lands; scenery so diversified that the eye never tires to look upon it; situated almost at the very door of San Francisco; easy of access by both rail and water—it would seem that we have all the elements to make ours one of the best known and prosperous of sections. Had we been as enterprising and as politic in advertising our wares as were, and are, the people of the City of the Angels, we might have been receiving some of the tide of immigration that is now flooding that city. We are beginning to realize our lost opportunities, and, at a meeting of our citizens held at Martinez on Saturday evening last, it was resolved to adopt some of the tactics practiced by the "boomers" of other localities, viz., by the use of printers' ink to give such information to our Eastern visitors that shall attract a fair share to our county. At this meeting over 100 of the prominent men of the county were in attendance. Speeches were made by several gentlemen, setting forth our beauties and capabilities. A board of trade was organized, composed of some 60 representative men of the county, and it is proposed through them to collect information of our productions, soil, climate, rainfall, situation and price of lands, etc.—in fact, all information that an intending settler may want to know, and that all such information shall be truthful and reliable. This "board of trade" is to meet at Grangers' hall on the 3d inst. to more fully organize and start the ball rolling. Perhaps when we shall take our light from "under the bushel," we shall work up a boom on our own hook. QUIEN SABE.

Martinez.

POULTRY YARD.

Hints for Practice.

EDITORS PRESS:—As the hatching season is in progress, let us look over the wants and work in the farmers' poultry yard, at present and in the near future as well.

In the first place, as the warm weather is approaching we must be very careful to keep all coops and roosting-places for both old and young chicks very clean, otherwise they will be overrun with lice and red mites, both of which are an abomination; chickens and lice will not both prosper in the same coop, and the lice will be the victors in the short run. To prevent lice getting the upper hand of me, I use fine sand on the bottoms of *all* my coops; for grown fowls' coops I put it three or four inches deep, and then with a short-handled, square-pointed shovel it is an easy matter to remove the droppings twice a week, and then once in two weeks I go over the floors of coops for grown fowls with a mixture of one gallon of water into which I put a tablespoonful of crude carbolic acid. I use a fine spout sprinkling-pot; it could be put on with an old broom.

For little chickens' coops I only put in a thin layer of sand, clean out the droppings twice a week, and at the end of the week dump out all the sand and put in new. Don't forget to use whitewash freely during the summer months, and for the inside of coops for old and young; and into the whitewash put a tablespoonful of crude carbolic acid to each gallon, or two spoonfuls to a water bucket full. The lice do not live where carbolic acid is. Crude carbolic acid can be had at the druggist's for 50 cents a quart, and that amount will last most any farmer a year. For outside use, leave out the acid, and in place of it put in a good handful of salt to a pailful of wash to make it stick.

Just fix in your mind that perfect cleanliness both in the coops and in the drinking dishes, and in dishes for feed also, is one of the great secrets of successful poultry rearing, and also that cleanliness is a preventive of many, if not all, the diseases fowl flesh is heir to, and I think all who know will say it is better and cheaper to prevent than it is to cure disease, so be careful; you cannot be too clean; you are quite liable to get too filthy. The old saying is true: "No pains, no gains."

Time of Setting.

As to the matter of not setting hens after June 1st, I find that chickens hatched from June 15th to October 1st do not have the vitality, and seldom, if ever, make a success as a full-grown fowl. I much prefer to hatch from November 1st to May 1st. To be sure, it will require coops and runways, but in this way good, strong, early-matured chicks can be had, and they are the ones that pay best.

I much prefer sand or loam to put in boxes for hens to set on instead of straw. My firm belief is that straw or chaff is no good for hens' nests, anyway; use earth or sand every time, as you will be more free from lice, and will get a larger hatch than on straw. Be clean about the food you give little chicks, and give it to them on a clean place out of the dirt; change the feed often as possible; their natural feed is seeds of many kinds. The old hen does not boil eggs hard for them after hatching, but takes them to hunt seeds and worms, etc. However, I feed mine boiled eggs for the first day or two, then cracked wheat, cracked corn (corn in very small quantities), etc. Use care and common sense always, and be willing to learn all you can. E. C. CLAPP.

South Pasadena, Cal.

THE GARDEN.

"How Does Your Garden Grow?"

"Mistress Mary, quite contrairy,
How does your garden grow?
Peas more green were never seen,
Or onions all in a row."

EDITORS PRESS:—Happy is the man or woman whose garden seeds were safe covered in garden rows before the rains. Onions and peas, especially, may be put in very early, as they stand up bravely against Jack Frost, and, as Widow Bedott would say, they are a great favorite of rainy weather. Not long ago I inquired of a successful gardener what time onion seed should be sown, and was told that September was the best time, as then the little fragrant vegetable would be ready to transplant after the first rain, and would grow well during the winter. I was a little late with my question to do the most good this year, and could only try to have the seed hustled into the ground as soon as possible and remember the hint for another year. Perhaps the man who "never can grow onions" may have success if he starts early and uses plenty of ashes on the land.

Saltpeter for Corn.

Some years ago there was an article in the RURAL PRESS recommending the soaking of seed corn in water containing saltpeter just before planting, to prevent worms from appearing in the coming crop. Well, my Philander tried it one year, and sure enough the corn was fine, with scarcely a sign of the crawling foe; but he said it must be chance, for how could soaking the seed by any possibility affect the corn which grows so long afterward? But I have been thinking that some of the seed might contain the egg, which, under the favoring condition of the seed's decay, after sending up its stalk, would produce the worm ready to crawl up and fatten on the first juicy kernels that grow. Now, if anything like this really occurs, then the saltpeter bath might be actually useful, and our good corn crop did not come by chance. But if the worm is produced by a moth, then perhaps somebody can tell us about it. [Saltpeter may disgust some of the many pests which attack the kernel when placed in the ground, but the worm in the ear is the offspring of a moth, which lays its eggs on the silk, and soaking the kernel can have no influence upon it.—EDS. PRESS.]

Potatoes.

It has been the universal complaint that this year's potato crop has been uncommonly bad and wormy. Now will it make any difference with next year's crop whether you plant good potatoes or these bad ones? Might not the worm which tunnels little roads through our potatoes leave some trace? I have seen a moth fly from a sack of potatoes, but I think I will say no more; let some one else take the floor.

The above I wrote on the cars as I came up to San Francisco, and since that I have attended a lecture delivered at Cooper Medical College by Rev. Dr. Wythe, of Berkeley, and he said, among many other things, that "the egg of the worm produces the worm." Upon hearing that I craned my neck and gave a mental crow, and said to myself: "There, I'm ready to put up my umbrella and take all the rain of ridicule the many Philanders may begin to pour upon me, for daring to preach about potatoes and corn, but just let them prove that they never plant the egg of the worm along with their corn. HILDA DELESTHER.

[The "egg of the worm may produce the worm" in the sense that like produces like, but in the pests with which the farmer has to do, at least, there are intervening stages. The grub or worm or caterpillar is an imperfect insect, and has neither sex nor any of the special attributes of sex. The moth or the butterfly or the beetle, etc., are perfect insects and have the endowments of sex. The potato worm may go into the chrysalis state in the potato and emerge a moth, and then in planting potatoes one might plant the chrysalis with the potato and thus introduce the moth, the moth when it emerges lay eggs on the new foliage, and thus a new and increased crop of worms be prepared for the new crop of potatoes. We are speaking of possibilities. We do not say that the potato worm really takes that course. We do not know just what insect our correspondent means by the potato worm. There are several larvæ which might lay claim to that distinction.—EDS. PRESS.]

THE STOCK YARD.

Notes on Cattle Feeding.

EDITORS PRESS:—As you have often assured me that the letters I write to private parties might be of general value to the readers of the RURAL, I send you the following note and my answer:

Robert Ashburner—DEAR SIR: I would like to ask you a few questions in regard to feeding stock on cut feed. We put up a cutting rig and have been feeding cows and bulls on cut hay mixed with bran. We have had several taken sick and would be ailing for one or two days; the cows would fail in their milk, but all of them got over it all right. Do you think there is danger in feeding too much hay? I know we do not feed enough bran to founder them. Some stockmen tell us cut feed will kill stock, but I believe you fed cut feed and yours did not look like dying. If you can give me any hints on feeding, and it is not asking too much, would like to hear from you.—E. D. COMER, *Roseville, Cal.*

Mr. Comer does not describe the symptoms of the sickness in the cows; neither does he say whether the feed was given dry or wet. If given dry and to cows that had never been used to that kind of feed, the cause of sickness might be from ravenous and hurried eating, causing a species of indigestion or overloaded paunch, which might be relieved by the animal abstaining from food for a day or two. If medicine be needed in such cases, the quickest and safest remedy is one and a half to two pounds of Epsom salts, with one ounce of ground ginger and two ounces of saltpeter, in a gallon or more of water, with or without the addition of two or three pounds of treacle; and if this does not relieve in 12 hours, give half doses every six hours till the animal is relieved.

If the hay was good, sweet, and sound, there is no reason why the cut feed should cause sickness, but if it was musty or moldy, or in any other way unsound, it would be very sure to have an injurious effect upon the animals eating it. Any quantity of good, sound hay may be fed to cattle; it may be fed either whole or cut up, as circumstances require. There is no advantage in cutting good sweet hay such as cattle will eat up clean and without waste, but it is undoubtedly an advantage to have a little cut hay or straw to mix the meal or bran with when being fed to cattle. Hay and meal should be carefully and evenly mixed together in a box large enough to suit the quantity to be fed out, taking care that there are no doughy lumps of meal, half dry and sodden together, else one cow might get twice her share of meal, and others little else than hay.

The idea of cut feed killing stock is not worthy of a thought. Cut feed, with its accompaniments, may be fed dry when cows are having some kind of succulent food and plenty of it. Where the winter feeding of cows is undertaken, there should always be some kind of green fruit provided for use when the green grass fails. Green corn will come in best for the first part of the season, and after that mangel-wurzel may be used to advantage.

In our climate there is no need for storing any of our root crops for winter use. The time of sowing will vary with the climate and the kind of land used for the crop. On a light, warm soil, mangolds may be sown early and be ready for use by the first of September; but on heavy or cold land later sowing will generally make a better crop than when sown early, say in March or even in April in some seasons.

In our coast climate I prefer sowing after the heaviest of the rains are over, whatever time that may be. I seldom sow before the 10th of May, but oftener not before the 20th, and from that time on till the first week in July, and that on dry upland.

As I have always green corn till about the first of November, I do not need the mangolds till after that time. By late sowing, I do not have many weeds; the plants do not ripen during the summer, and stop growing, as an early sown crop would, before the rains, but keep on in a healthy growing state up to and during the rainy season.

The growth that comes to early-sown mangolds, that have once stopped growing, can hardly be considered a healthy growth. It may add weight to the root, but not in the right place. The additional weight will be detrimental to quality; there will be an accumulation of coarseness in the upper parts, chiefly by the lengthening and thickening of the neck, just below the leaves; and we most of us know that a cut off the neck end is not as good eating as one from the hinder parts of a beast. It is just so with all kinds of roots, mangolds, turnips and carrots especially.

A good crop of mangolds on a stock farm is a great help in getting stock through the winter, a great saving in the use of other food; they seem to be liked by all kinds of live-stock, cattle, horses, sheep, pigs and poultry; all will eagerly eat them and be the better for the eating of them—there's no doubt about it—for what an animal likes and eats with avidity is generally good for it, and a safe thing to feed liberally, but always in a judicious manner.

Hints on Feeding.

E. D. C. asks for a few hints on feeding. I would say:

Never make sudden changes, neither one way nor the other, from rich to poor nor from poor to rich food, neither from much to little nor

from little to much, at once. Let all changes be made gradually.

Whatever the food used, feed enough, but do not satiate, which is easily done when rich, concentrated food is being used. Find out about how much an animal will eat up clean, then you know how much it wants and have the most exact measure that can be got of an animal's appetite. When an animal leaves a part of the food put before it, then it is getting too much, or it may be too much of one kind, and a change would do good. A little variety in the food used every day, and a little change sometimes made in that variety, will generally be to the benefit and comfort of the animal as well as the profit of the owner.

Feeding Beets.

Since writing the above, I have received this week's RURAL, in which is a short article on feeding beets, by Ira W. Adams.

There is some danger in feeding very small beets whole, especially if they are short and round, and if not freely grown they are harder and not so easily broken up (possibly from having been overripe and too long in the ground, thus having become somewhat hard and woody) as those grown quickly and under the most favorable circumstances.

I have been feeding the long red mangold whole—big and little—to cows for 25 years in this country, for several years past as much as three tons a day for some three months in the year, always in the field, night and day, to both cows and calves (up to 12 months old), and never had but one animal in all that time that required any assistance. The careless way in which I have seen them cut up and fed to cows I consider very dangerous.

ROBERT ASHBURNER.

Baden Farm, San Mateo Co.

Taking Off a Hide.

Many farmers occasionally have a job of skinning a calf, a sheep or beef animal, and while so many have become quite expert in the work, many make a very bungling job of it. Butchers' hides always bring a higher price than country hides, partly because the former are taken off by expert workmen who perform the operation in the very best manner, while country hides are picked up, in part, among the farmers who carelessly cut holes in the valuable portions or gash into the main body by injudicious use of the knife. The *Leather Review* has the following instructions for taking off and preserving the hides:

In taking off a hide or calfskin, never cut the throat crosswise in the least. Slit the skin from the brisket to the tail, and from the brisket to the jaw; then cut around each leg to the hoof. Slit the hind leg from the hoof up directly over the gambrel and the forward legs in front, directly over the knee, to the top of the brisket bone. This leaves the hide or skin, then, in proper shape for finishing. Skin the head and legs carefully to avoid cutting them; then, commencing at the head, draw or fist off the skin without any further use of the knife, thereby avoiding the holes and cuts that almost spoil so many calfskins. Some farmers use a windlass to draw off the dairy skins, and others use a horse; but one or two men can do it a great deal more quickly and easily. When taken off, lay the hide or skin on the floor in a cool place where the sun cannot shine upon it, and cover it with salt, rather fine salt being better than too coarse salt. Do not roll it up, but let it remain in the salt until you take off another, then place that upon the first, salting freely as before, and so on until you get enough to make quite a pile; then commence another pile in the same manner. Do not be afraid to use salt freely; what the skins do not require will shake off and can be used again.

If you prefer to dry out your skins before selling them, be sure that they are thoroughly cured with salt before drying them, and then that they are thoroughly dried before being baled up for shipment. Never dry out a skin without having it salted as described, to preserve it from moths and other injuries on the hair side, which are liable to occur if the skins are not properly salted before being dried out. If your skins remain on hand very long after being dried out, before delivery to the tanner, even if salted, watch them carefully to detect any indications of moths or worms on the hair, and if any are discovered have the skins vigorously whipped with a stick so often that they shall be wholly eradicated from the entire lot of skins, as they often work serious injury in a very short time.

TO TEST KEROSENE OIL.—Manufacturers of kerosene oil say that all lamps are safe with good oil, and that the quality of oil can be ascertained by the following test: Take a pint tin cup, fill it nearly full of water warmed so that an ordinary thermometer immersed in it will show 120°, pour a small quantity of oil on the water, stir it a little, then pass a lighted match quickly but closely over the surface of the oil once; if it ignites, the oil is unsafe. If purchases are made of from 3 to 5 gallons at a time and this test is made, people can protect themselves.

ONION ROOTS.—A correspondent of the *Rural New-Yorker* found onion roots a foot long and still going down, though too fine to follow.

FIFTY THOUSAND TONS of soot were taken from London chimneys last year. Its value was set at $204,000—as a fertilizer.

AGRICULTURAL ENGINEER

Agricultural Lands in Nevada.

Gen. C. W. Irish, C. E., gives the Reno *Gazette* the following interesting statement: Many inquiries by letter and in person reach me from persons outside and inside of this State as to the probable amount of land in Nevada which can be brought under cultivation by irrigation and otherwise. Since my coming here I have diligently studied these questions, but from the fact that my duties keep me closely within office walls, and also as the season is not favorable to travel, it being winter time, I cannot say that I have made much progress, except to gather information from individuals, much of which, based upon experience, is valuable. I find that we have about 5000 miles of mountain ranges in the State, the greater portion of which can be made available in storing water for irrigating purposes, and to supply a large amount of water-power for mechanical uses.

Using all the information in reach, I am able to make up the following approximate estimate of available agricultural lands in the State, including the land now under improvement: Area of mountains, 55,400 square miles; area of water surface, 960 square miles; unavailable area, 56,360 square miles; total area of the State, 110,700 square miles; total unavailable area, 56,360 square miles; available lands, 54,340 square miles. Of this quantity, 54,340 square miles, there are about 30,900 square miles, a portion of which is denominated "desert" upon the maps, and all of it lies so far from mountain ranges as to, in my mind, preclude the idea of improvement by the means of irrigating ditches. I will describe this area further on.

I gather from the State Surveyor-General's report for the years 1885–6 that there was under cultivation in the State, for the latter year, 92,100 acres of land, or, in round numbers, 144 square miles. From all that I have said, it is seen that the surface of the State is divided about as follows: Mountains, 55,400 square miles; desert lands, 30,900 square miles; water surface, 960 square miles; tillable lands, 23,440 square miles. The last item contains the amount already under cultivation, which is 144 square miles, leaving 23,300 square miles or sections of valuable agricultural lands, which, with an adequate water supply, will certainly be equal in value and production to the best lands of that class anywhere in the world.

As to the distribution of the snows and rains, all that I can say is that it seems as if the slopes of the Sierra Nevada mountains in the State catch and hold the maximum quantities of the annual falls, and that the precipitation falls off in quantity from some point in Washoe county northward, eastward and southeastward. There may be other points or small areas in the State which will gather as much of the annual precipitation as does the eastern slopes of the Sierras, but that remains to be seen. However, I feel certain that the mountain ranges within the State, north of the Government base of surveys, catch more than enough water per year to put every acre of the 23,300 square miles of tillable lands, which lie spread out at the foot of their slopes, under perfect cultivation. The rainfall, properly saved in reservoirs, would do this and also furnish an immense power for mills and other mechanical purposes. The evidence of this lies in the large streams of water which are to be found taking their rise in the lower slopes of the mountains in White Pine and Elko counties, in the eastern part of the State—a region which certainly receives less rain and snow than do the more favored western portions.

I come now to speak of that part of the State which lies south of the base line of Government surveys. It is this region which contains the greater part of the tract denominated above desert lands. I am not able to say anything definite about its borders, many mountain slopes, which gather a sufficient quantity to supply water to reservoirs, and thus furnish a permanent supply. When the maps of this locality are looked over closely, it is seen that though the surface is dry and desert-like, yet there must be a bountiful stock of water somewhere, from which the supply of the numerous springs of this region is obtained. Taking the maps for it, there are far more springs to the square mile here than in any other part of the State. To my mind, this is certain evidence that beneath this dry surface lies an inexhaustible supply of water, which is drained from the more higher northern portions of the State. If this conjecture be true, it is evident that here is the region which is to be the most benefited by artesian borings and by deep wells, either bored or driven, and found to yield the needed supply of water by pumps actuated by windmills. These remarks apply with equal force to all the wide dry valleys in the State, but I fear that the chances to obtain water by deep borings in the northern portions will not be as many nor as favorable as in the southern regions. I wish to call the attention of all who are interested in the development and extension of the agricultural resources of the State, to the fact that, in my opinion, there is yet much land within its bounds which can be made to grow alfalfa without irrigation. In all those parts which have a certain supply of moisture, always in strata from a few feet below the surface to 30 feet below it, will, I am sure, other things being equal, furnish a sure crop of alfalfa. This I know from what I saw in New Mexico in many places a few years ago. The Mexicans, and in a very few cases, Americans, were getting very good returns from that forage crop without irrigation. It was all in knowing how to select the places to grow it. They told me that it took the plant two years to get its roots sufficiently deep into the soil, and that during the time it was rooting the plant above ground remained about one or two inches high and did not grow at all, but seemed dying all the time. The third year it shot up to its full growth, and from that time good crops were assured from it, however hot and dry the season happened to be. They sowed the seed just at the beginning of the season of rainfall or at the end of the winter, when thawing, moist soil was assured, and then let the plant take care of itself. That the Mexican theory of the deep-reaching roots of this plant getting down to a deep-laid moist layer was the secret of the success of the dry planting of this crop, I was fully made to believe, when afterward I was shown by the Catholic priests of Albuquerque their experiments, in which they had carefully dug to the depth of the smallest fiber which they could perceive and handle, and thus have excavated perpendicularly 35 feet before they reached the end of the roots in many cases. I saw this plant cultivated in dooryards where the material of the soil was the toughest adobe clay, where, by sprinkling it from time to time while it was rooting itself, the result was that it soon covered the dry, hard surface with its refreshing green, where before nothing else had grown. All this was done in a region of much less rainfall than this State enjoys—fully one-half less. I also believe that in many places small grain may be raised without irrigation simply by carefully watching for the time when the winter snow-falls are almost to cease and then sowing the seed, which will have the advantage of the moisture held by the soil until it can sprout, grow, and perfect the grain, before the hottest dry weather comes on.

ENTOMOLOGICAL.

Sal-Soda Wash for Scale.

EDITORS PRESS:—In your issue of Feb. 26th, we noticed the opinion of Prof. Hilgard on the merits of the sal-soda wash as an insecticide. He says:

"Sal-soda is a very weak insecticide, and can be effective only in very strong solution, and against young and tender scale; not against armored scale, nor even unarmored scale in the winter state.

"I cannot account for its use having come into vogue at all, unless it be because it was applied hot enough to damage the bugs. On that score I would not consider its effects as such worth the labor of spraying."

Now, as to the practical results of using the sal-soda wash as an insecticide:

In this part of Santa Clara county, the Willows, it has been in use some three or four years, and during the present season, at least, two-thirds of our orchardists have used it, all claiming that they have had better results in destroying the scale, and leaving the trees in better condition than from the use of any other wash. It is regarded as perfectly safe and harmless. We have known peach trees badly affected with red scale, and one application of the sal-soda wash has left them in healthful condition.

In some instances sal-soda has been used without oil with good results. We could give names of reliable orchardists who would be glad to vouch for the satisfactory results of using the wash. As to the cost, it is cheaper than most of the washes. It costs about two cents per gallon for the following formula: 25 pounds of sal-soda, and one gallon whale oil, to be put in 25 gallons water, made as follows: As soon as the water is hot, put in soda and it will dissolve quickly; add the oil and boil, stirring same, and it will readily mix, making a milky liquid. In using it, spray hot and stir often. We have used the above when the fruit buds were swelling and seen no bad effects from it. Some of our orchardists expressed a desire that some one make known the results of using the sal-soda wash, which we have endeavored to do, hoping that it may be of use to others. We have no axes to grind, and do not represent any commercial interest, being an orchardist, and feeling an interest in anything that relates to the preservation of our orchards. R.

San Jose, March 4, 1887.

Reply by Professor Hilgard.

EDITORS PRESS:—In regard to the above communication, I would say that without disputing the facts stated, I cannot agree in attributing to the sal-soda as such the effects noted: First, as to its being "more satisfactory than other washes," it should be understood what washes are meant. If the alkaline winter washes recommended in Bulletin 52 are referred to, or similar ones, the fact that the caustic soda is promptly—too promptly—converted into sal-soda by the action of the air, within a few hours, and that each pound of caustic soda used is thus transformed into 3½ pounds of sal-soda, which can be bodily seen on the branches afterward, would seem to dispose of the idea that the soda in a wash of one-third the strength is a more active agent. I have personally tried the effects of two pounds of sal-soda per gallon, used moderately warm, and have found the wash quite harmless, at least to pear scale and red spider.

But it is quite possible that the persons using the sal-soda wash have felt safer for themselves and for the trees in using it very abundantly and very *hot*, and have thus accomplished results that with a caustic wash, handled with some reluctance, caution and economy, and allowed to get lukewarm before it touched the scale, they have failed to bring about. When used hot enough to make the scale raise its edges at once, the sal-soda and whale-oil wash would be quite likely to make short work of the tender insects inside; and if the San Jose or Imperial nozzles were used (instead of those making fine spray in order to save in quantity, as is done in the more expensive washes), the liquid might well reach the scale in a scalding condition. If, as I believe, this is the true explanation of the reported efficacy of the sal-soda wash, the latter will have served an excellent purpose in introducing the practice of hotter spraying. The matter certainly deserves farther investigation by comparative experiments made with an exact observance of identical conditions of temperature, etc.

E. W. HILGARD.

University of Cal., Berkeley.

MISCELLANEOUS.

Does Charring Timber Promote Durability?

The general belief has long been that it does, and in accordance with this conviction the practice has been widely followed. But a contrary view of the subject is taken by *Wood and Iron*. That journal says in a recent issue: "As charcoal would endure for ages in places where timber would decay speedily, the practice of charring the surface of fence-posts and other timber has been repeatedly recommended in books and ephemeral publications, as eminently worthy of universal adoption.

"The theory upon which such a recommendation is based would seem to warrant a confident expectation of satisfactory results in practice; but repeated experiments with charred timber have furnished conclusive assurance that the process will not promote its durability. Indeed, numerous experiments have shown that charring promotes premature decay. Two posts split from the same log may be set side by side in the ground, the surface of one being charred and the other not; and it will be seen that the charred post will perish before the other.

"The same is true of railroad ties and all such timber as may be exposed to the altering influences of wet and heat. Could the entire timber be changed from its perishable condition to one solid piece of charcoal, the durability would be promoted to a surprising length of time; but the strength of the material would be destroyed. When fence-posts or other sticks of timber are exposed to the rapid action of wet and heat, the surface will decay first. One might suppose, therefore, that when timber is enveloped by a layer of charcoal, the durability of the entire piece would be greatly promoted. And such would be the case were it not for the fact that the charcoal is not impervious to water; and as water reaches the timber below the charred surface, decay will commence soon after the grain of the wood has been exposed to the influences of the weather. When the change has once begun beneath the charred surface, the durable covering of coal will be of no service whatever in preserving any portion of the wood. Taking this practical view of the subject, it will be perceived that if only half an inch of the outside of a post be charred the post will not endure so long as if the same thickness of wood had been left uncharred to waste away by slower decay."

DO BIRDS FLY DOWN?—This query has recently been made a subject of some considerable discussion among scientists and observers. Mr. C. F. Holder writes as follows in *St. Nicholas:* I see, in a back number of *St. Nicholas*, that one of your correspondents appeals partly to me in regard to birds flying down. But all who have written seem so well posted that I doubt if I can add anything to their knowledge. However, I have seen a California quail, a wood-dove, and a humming-bird flying downward; but in slow flyers, with large wings and heavy bodies, the wings are used more or less as parachutes in going down; in other words, the birds spread their wings, and rely upon gravity. This I have noticed in the sandhill cranes in their migrations along the Sierra Madres. A flock, of say a hundred, will mount upward in a beautiful spiral, flashing in the sunlight, all the while uttering loud, discordant notes, until they attain an altitude of nearly a mile above sea level. Then they form in regular lines, and soar away at an angle that in five miles, or so, will bring them within 1000 feet of the earth. Then they will stop and begin the spiral upward movement again until a high elevation is reached, when, away they go again, sliding downhill in the air, toward their winter home. It is very evident that a vast amount of muscular exertion is saved in this way. In some of these slides that I have watched through a glass, birds would pass from three to four miles, I should judge, without flapping the wings.

THE GOVERNMENT CHEMIST of New Zealand has proven that the dust of the recent volcanic eruptions is of great value as a fertilizer.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

The Anti-Debris Litigation.

Resolutions of Yuba City Grange.

We have received, for publication, from Geo. Ohleyer, Jr., Secretary of Yuba City Grange, the following report and resolutions adopted by that body:

To the Officers and Members of Yuba City Grange: We, your committee, appointed to draft resolutions in regard to the anti-debris litigation, beg leave to report as follows:

WHEREAS, There is a deep-laid conspiracy, organized and managed by the hydraulic miners and their agents, assisted by a few traitors in our midst, to divide our own people in regard to the manner in which the anti-debris litigation has been and is now conducted, and to continue to promote this division until our efforts for protection are rendered unavailing; and

Whereas, Our opponents from the nature of their business can easily organize, and from long experience have learned that to succeed, they must extol their leaders and promptly obey their dictation, by which means they frequently convince others that the wrong they represent is right; while we, if disunited, with a part of our people continually working against us and themselves, make but slow progress in the great work in hand; and

Whereas, We recognize the management of the Marysville *Democrat* and that of the Miners' Association to be in the same interest and dictated from the same source, while it seeks to draw its support largely from those whom t desires to destroy, and, under the guise of friendship and interest, attempts to criticise and belittle the true friends of our cause; and

Whereas, Some true friends of the valley, believing its accusations, because they have not and will not take the trouble to investigate the matter, severely criticise the manner in which the affairs of the anti-debris (litigation) have been conducted by those whom circumstances have forced into leadership in the fight; and

Whereas, Many of us have made close investigation of the records of the association, which have been accurately kept and can be readily examined by any one sufficiently interested; and

Whereas, We can see, from the course pursued by the miners in the State Legislature, that they are still endeavoring to render the law's delays more tedious and the litigation more expensive and inconclusive, that being the sole object of the Walrath and similar bills; now, therefore, we, the Yuba City Grange, containing a membership of over 100 farmers, and representing in this, we believe, the ideas and opinions of our most intelligent, energetic and influential citizens, *do resolve:*

First, That we repose unlimited confidence in the integrity and ability of the members of the anti-debris litigation, who have so thoroughly accomplished the purpose for which the association was founded, and are now assisting to enforce the decrees which they, at so great effort obtained.

Second, That, as a Grange, we stand united on this proposition, and feel called upon to counteract any spirit of discord that may be promoted among us by our enemies.

That circumstances which have transpired during the past year, so plainly point out the Marysville *Democrat* and its editor as instruments in the hands of our enemies, wielded for our destruction, that we are compelled to look with suspicion upon all persons using its columns or in any way contributing to its support.

Fourth, That we recognize the fact that many of our merchants have consistently refused to give aid to this wolf in sheep's clothing, and we assure them that the people of our county will not be unmindful of their friends.

Fifth, That we know that our representatives in the State Legislature, who are members of our Order, have been faithful servants, and represented our true interests, and that their present course meets with our heartiest approval; and we congratulate, not only the people of our district, but of our great valley, upon our having elected such men. And when the Grange shall have educated the farmers of the State so that they demand and obtain the majority of officers to which they are entitled, then we shall have a State Government of which we may well be proud.

C. C. NEWKOM.
W. E. SAMMISH.
W. J. HARDY.
C. E. WILLIAMS,
Committee.

The Walrath Debris Bill.

Since our last issue, the bill introduced by Walrath and supported by the mining interest has been defeated. The result evidently gives great satisfaction in the valley, as shown by the following dispatch:

MARYSVILLE, March 5.—The defeat of the Walrath bill in the Senate has caused a feeling of general satisfaction and a sense of great relief in this community, as the passage of such a measure was considered to be of great detriment to the interests of the valley, and would have been a great setback to all local improvements. With the prospects of a prosperous year, the community is elated, and the spirit of improvement started by the Sawyer decision will be kept up and continued as long as a feeling of security from the resumption of hydraulic mining prevails.

TEMESCAL HARVEST FEAST.—The fourth degree will be conferred at Temescal Grange at 10 A. M., March 19th. All Grange members of the California Legislature are invited to be present and speak of the experiences of the past session, and of future legislation concerning farming and other industrial interests. All Patrons are invited. Eden and other neighboring Granges are especially expected, and an interesting time is anticipated.

Equality of the Sexes.

[An address delivered before Eden Grange by MRS. R. PERHAM, and furnished by our request for publication in the RURAL PRESS:]

Worthy Master:—At our last meeting you put the question to the sisters, whether they wished to represent themselves personally or by proxy, by the use of the ballot. I suppose that each sister has the privilege of answering, and is expected to answer for herself; and I am compelled by all the forces of reason that I can bring to bear on the subject, to claim that woman, by a natural law, comes into existence as free to act in all that pertains to or concerns her as man; and I further claim that the discrimination which has been made between the sexes has been and will be instrumental in making inharmonious conditions in society. I do not think, Worthy Master, that simply casting a vote to elect certain candidates to fill certain offices, by either man or woman, will bring about satisfactory results; but when equal opportunities are given for education in all that pertains to the moral, mental and physical, it will be to the advantage of both man and woman. One sex cannot be debarred from any natural right, without disadvantages ensuing to both.

We women have been denied facilities for attaining the higher branches in education, colleges being closed against us. There has been created a false public sentiment by giving to the world a different code of morals for men and women, whereby moral delinquencies, which exclude women from society, are not only tolerated, but deemed of little account in men. This, I think, is one of the most potent of the many factors in bringing about conditions that are so much deplored by all thinking minds, who wish the good of all. It is not for women's sake alone that I claim equal rights and privileges, but for the sake of the whole human family, who will be better off when woman can give her influence, under all conditions, and in all places whence she is now debarred by the false conceptions which have arisen in regard to the conditions of life.

As I see it, what is legitimate and proper for man is equally so for woman, and whatever will demoralize one, will certainly demoralize the other, and the result is equally deplorable. There is no essential difference that can in any way affect humanity, the responsibility cannot be shirked by either sex. As I see it, all humanity comes into the mortal body having an immortal part or a soul that lives to all eternity, and each has inalienable rights, not only to the franchise but to develop his or her faculties—moral, mental and physical. One sex has no natural right to dictate to the other what sphere they shall move in.

God's laws are Nature's; and Nature speaks in language so plain that an unprejudiced man or woman must acknowledge that a defect in posterity is the result of conditions made by progenitors. Nature gives to each individual, whether male or female, the right and privilege of developing their God-given powers, so as to become pure, noble beings. Sex does not make conditions for saint or sinner. Each alone is responsible for his or her own life-record, and should be allowed freedom to think and act in all things so far as it does not infringe on others' rights.

Picnic Season.

Brother G. P. Loucks, Lecturer of Contra Costa county, interviewed us lately on the very pleasant subject of a Grange picnic, to be held jointly by the Granges of Contra Costa and Alameda counties. He will soon visit the brethren of Walnut creek and Danville, and we presume a first-class Grange picnic will in due time be materialized. Danville is considered one of the most accessible points of meeting. Our Grange picnics are becoming so popular that we have no doubt whatever of the success of such undertakings wherever held, in any part of the two counties.

While mentioning this subject we would urge Grangers in all parts of the State to commence in season and put the best foot forward in holding annual picnics. Invite in the most talented speakers available, to interest both Grangers and other farmers and their friends. Their influence is bound to be good and it is well for both old and young to devote a day at least to such recreations. It will do us all, old and young, lots of good, and seldom if ever at any loss.

Bro. Loucks reports Alhambra Grange as solidly increasing. Valley Grange, while holding its own lately, is expected to increase its numbers with the coming of the pleasanter season.

GALT GRANGE.—Installation, Feb. 19: H. Chase, M.; J. H. Lawyer, O.; A. A. Clough, L.; M. E. Stock, S.; Mary Simons, A. S.; Sister F. M. Fowler, C.; A. B. Bryant, Sec.; Peter Planalp, T.; S. E. Wriston, G. K.; Sister J. Mitchell, P.; Esther Carr, F.; Alice Carr, C.; Anita Donaldson, L. A. S.

WOMAN SUFFRAGE IN THE GRANGE.—Quite a lively discussion was held in Eden Grange, Feb. 26th, on this subject, the speaking being limited to the sisters, who agreed and disagreed in a very pleasant manner. Sisters Perham, Sheldon, Blackwood, Anway, McDermed, Gadding, Sharin and others, besides Sister Whidden, of Temescal, expressed their views plainly and frankly, after which a vote was taken by the sisters, seven of whom voted in favor of, and nine against, women taking part in elections. Whenever the question is fully discussed throughout the Grange we think the general expression will be the reverse of the above.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

The National Grange at its last session provided for the "extension of the Order" through the Lecture Department. The work was placed in charge of the Executive Committee and the Lecturer. After careful consideration the following plans have been agreed upon, and are already being carried out: The "field" was divided into four Lecture Districts, of nine States each. These Lecture Districts to be under special supervision and direction as follows:

The Eastern District, consisting of the States of Maine, New Hampshire, Vermont and Massachusetts, Connecticut, New York, New Jersey, Pennsylvania and Maryland, in charge of Mortimer Whitehead, with D. H. Thing, of Maine, as Deputy Lecturer.

The Center District, consisting of the States of Ohio, Indiana, Michigan, Illinois, Wisconsin, Kentucky, Virginia, Delaware and Tennessee, in charge of J. H. Brigham, who has consented to take the field as Deputy Lecturer.

The Western District, comprising the States of Iowa, Minnesota, Dakota, Nebraska, Kansas, Missouri, Colorado, Oregon and California, in charge of J. J. Woodman, with C. L. Whitney as Deputy Lecturer.

The Southern District, consisting of the States of Texas, Louisiana, Mississippi, Alabama, Arkansas, Georgia, Florida, South Carolina and North Carolina, in charge of J. N. Lipscomb, who as Deputy Lecturer will take the field.

Those in charge of these districts will arrange all the details of the lecturing in their districts.

All four of these Deputy Lecturers are now at work, and it is hoped that during the year they will be able to visit all parts of their various fields.

By a system of legislation granting special privileges we have seen in this country hundreds of millionaires created during the past 25 years, who have been permitted to absorb the profits of agriculture, which is not only robbing the farmer of the just rewards of labor, but the communities in which it was produced as well. And while farmers, under this system, have been compelled to contribute largely toward making the rich richer, they themselves have gained but little in proportion to the wealth they produced. It is true there are many who have made reasonable additions as profits, and it is also equally true that many more have gained but little—thousands have not gained one per cent per annum on labor and capital employed.

Judge Daniels, of the New York State Supreme Court, in a recent case of "cornering" lard, said that the business is no more than "respectable robbery"—"such a combination is an unlawful conspiracy punishable as a crime." There is a work in this direction for farmers, and the National Grange has already commenced to deal with the subject.

Masters of State Granges, Secretaries, Lecturers, Deputies, and other "workers" are greatly aiding the Lecturer of the National Grange by forwarding Grange news and items. It is this true spirit of co-operation that aids and cheers us in our work. One correction is necessary here and most cheerfully made. The worthy Secretary of the Indiana State Grange did *not* say "By Joe," as reported a week or so ago. No more able Secretary or more faithful worker can be found anywhere in our Order than Brother J. H. Walker, of Indiana.

"In this Grange structure I see the *one great principle of brotherhood* that underlies our common humanity. I see in it the united purpose that over 1800 years ago filled the hearts of the 12 disciples of the Son of God as they went forth on their chosen work of proclaiming the great truth of the new gospel dispensation. I see in it the united purpose of that company of exiles that, in 1620, landed on Plymouth Rock, the blessing of whose inheritance we to-day enjoy. I see in it the foundation of that success which was accomplished by the struggles, trials and sacrifices of our countrymen in those battles for our American independence, and in other events of the past and the present, the lasting blessings of co-operation we are permitted to enjoy to-day. As the result of co-operative effort, I see institutions of learning erected and supported. I see that it is by co-operation that every church in this broad land has been erected and is being supported to-day. Co-operation is the corner-stone in the foundation of our Grange structure on which alone can we build safely and permanently."—*James Draper, Master Massachusetts State Grange.*

Question for discussion by Granges: To what extent should the ownership of land be limited in the United States? Landlords and bonanza farmers are fast driving the small toilers of the soil to the wall, and unless a limit is soon put to land ownership our country will soon be a nation of few landlords and many tenants.

The Executive Committee of the National Grange have received an important communication from Nova Scotia, suggesting plans for more frequent, more intimate and more direct intercourse between the members of the Dominion Granges and those of the United States.

Suggestion for the Good of the Order.—"I do not consider myself able advice, but as a suggestion would say I think something should be done to have a uniformity of fees and dues. And that Masters should be made to understand that according to their obligation they have no right to put a motion to reduce before the Grange. I refused to do it and no change was made until after I left the chair. My firm belief is that when we break loose from our rules and regulations we are taking a long stride toward destruction."—*O. Towne, Piscataquis County, Me.*

The morning mail brought to the desk of the Secretary of the National Grange, a few days since, from the Secretary of the Illinois State Grange, resolutions on the following subjects, passed by the late session of the Illinois State Grange:

1. In favor of a Department of Agriculture, with its chief a Cabinet officer.
2. Against changing the Oleomargarine bill.
3. Urging the passage of Hatch Experiment Station bill.
4. In favor of the people electing United States Senators.
5. In favor of Woman's Suffrage.

The *same day* the Worthy Secretary placed them before the proper members in the House and Senate.

The *same day* Senator Cullom, of Illinois, introduced them in the Senate and had them referred to their appropriate committees, and next day's *Congressional Record* had a full account. What a change in the way farmers are listened to now from only a few years ago.

Progress.

Eight more new Granges:

Plainville, No. 54, Hartford county, Connecticut.

East Haddam, No. 56 (No 55 reported last week), Middlesex county, Connecticut.

Durham, No. 57, Middlesex county, Connecticut.

Northern Star, No. 286, Sagadahoc county, Maine.

Cook's Falls, No. 509, Delaware county, New York.

Twin Valley, No. 510, Broome county, New York.

Spring Valley, No. 814, Bedford county, Pennsylvania.

Mayville, No. 203, Clallam county, Oregon.

Talleyville Grange, Delaware, dedicated a new Grange hall, Feb. 22d.

Holmdel Grange, No. 99, New Jersey, is building a new Grange hall.

Orange Grange, Illinois, has just initiated seven new members.

"Though the prospect may be cheerless,
Onward press with courage fearless;
Down the centuries, calm sleeping,
Justice, velvet shod, comes creeping.
Past the monarch's throne and scepter,
Into man's heart—its acceptor!
In the fight thou'lt conquer surely,
With God's weapons armed securely;
In life's conflict prove the gallant,
In truth's service use each talent;
If thou canst not bring the flame,
Bring the incense to the altar;
Only such shall meet the shame
At the last, as faint and falter."

Meetings at Stockton.

EDITORS PRESS:—San Joaquin Pomona Grange had a rainy time for its business meeting, February 24th. Near the close of the private session W. S. M., Johnston came from the noon train, which, with the presence of W. S. L., Flint and wife, and intrepid Bro. Hooper, of Montezuma Grange, gave great pleasure to our members and visitors.

The open installation was dignified and becoming the leaders of an Order designed to broaden the usefulness of earth's greatest industry. W. S. M., Johnston's remarks aroused more pride and faith in the work the Grange had accomplished and raised respect for it in the breasts of lagging ones. Retiring Master Fiske has the confidence of all, and W. S. O., Overhiser's energy is well known, and with a solid staff of officers Pomona, No. 3, is equipped for doing good to farmers and the county generally.

Stockton Grange held literary exercises Saturday, March 5th, giving instrumental and vocal solos, recitations and a dialogue worthy of—well, worthy of our Grange—and that has to be pretty good! The program was well sustained, and sometimes dramatic talent blossomed out widely. A good-sized audience appreciated the efforts of culture.

Stockton, March 7th. MRS. W. D. A.

In Memoriam.

We have received from Bro. J. D. Huffman, secretary, the following resolutions passed at the last meeting of San Joaquin County Pomona Grange, No. 3, P. of H., held in Stockton, February 24th:

WHEREAS, It has pleased the Supreme Master of the Universe to remove from our midst our esteemed brother, A. A. Vansandt, Worthy Overseer of San Joaquin County Pomona Grange, No. 3, P. of H., who departed this life Jan. 19, 1887; therefore be it

Resolved, That in the death of our faithful brother, the Grange has lost a competent and efficient member, devoted to duty and ever mindful of the interests of his family, the farm and the Grange. Brother Vansandt has ever been a tower of strength to our beloved Order, endeavoring always to be prompt at Grange meetings. In sympathy and affection none were more compassionate, although in advocacy of justice and equality, the adamantine rocks were not more firm.

Resolved, That the sympathies of this Grange are hereby tendered to the widow and bereaved family.

Resolved, That the foregoing resolutions be spread upon the records of this Grange in memorial form, and a copy sent to the bereaved family and to the PACIFIC RURAL PRESS and *California Patron* for publication.

SAM'L C. WATERS,
CHAS. BAMERT,
J. D. HUFFMAN,
Committee.

DR. TRIMBLE CONVALESCING.—The faithful and devoted secretary of the National Grange, Dr. John Trimble, has been alarmingly ill of late at his home in West Washington; but we are thankful to learn, from the Washington *Post*, that he was considered out of danger on the 27th ultimo—so much better, indeed, that he is probably back in his office ere now, discharging its responsible duties with his wonted fidelity.

BY the death of Mrs. S. A. Daniels, which took place near Denverton, Jan. 21st, Montezuma Grange has lost one of its charter members and a most efficient worker for the principles of the Order.

CATTLE on Montana ranges appear to have suffered terribly from the recent wintry storms. It is reported that the losses between Miles City and Billings will be from 10 to 25 per cent, and east of Billings from 50 to 75 per cent. The losses around Fort Benton are very heavy.

RAISING R. R. RATES.—The railroad companies most affected by the interstate commerce law are trying to come to an agreement respecting through rates, in season to promulgate their schedule before April 5th.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

TREE-PLANTING IN LIVERMORE.—*Herald*, March 3: The ladies are meeting with excellent success in inducing our people to plant shade trees in front of their property. The planting began on Monday, and is going on all over town. The most popular tree is the locust. Next come the olive, black walnut, black acacia and pepper. A few will plant almond, pine and cypress. Thus there will be a pleasing variety of trees on our streets, and, if well cared for, they will, in a few years, make Livermore the prettiest town on this coast.

Butte.

MORE ABOUT OLIVES.—Chico *Enterprise*, Feb. 25: There are now on the Rancho Chico seven olive trees in bearing, all of the Mission variety. For several years past experiments have been made with their products, and this year 10 gallons of oil were made. The oil this year is not considered as much of a success as that made last year. It has not the right color or flavor, and is too thick. Nevertheless, the experiments have convinced General Bidwell that olives will grow well here, and that they will produce a good quality of oil, if the process is conducted by experienced men. Hence his determination to plant an olive grove and make the production of olive oil one of the future industries of the Rancho Chico. Our foothills are especially adapted to the production of olives, for the tree flourishes without irrigation and in stony land, its greatest need being good drainage, which elevated and stony sites supply.

Colusa.

ORCHARD AND VINEYARD.—*Sun:* Colusa is known far and near as a wheat-producing county, but ere many years she will be as well known for her orchards and vineyards. Two years ago there were planted in the immediate vicinity of Colusa over 19,000 fruit trees, including peaches, plums, pears, apricots, nectarines and figs, and about 120,000 grapevines, many of which have come into bearing, showing the adaptability of our soil for fruit and vine-growing. This year the number of trees and vines planted will more than treble that of two years ago. L. F. Moulton is putting out an orchard mammoth in its proportions. Dan Johnson is putting in a lot of pear and plum trees. Judge Bridgford purchased 100 orange trees this week for his ranch, and thus the work goes on.

Inyo.

RESTORING SHADE.—*Independent*, March 5: Everybody is busy planting trees in town. Trees of four or five years' growth are dug up at Camp Independence, brought in and planted along the streets, and in two or three years will replace those destroyed by the big fire. Most of these trees are locusts, which make rapid growth and afford good shade. Independence was rich in beautiful shade trees before the fire, and the citizens deplored their destruction almost as much as the loss of property.

Kern.

ANTELOPE VALLEY.—Bakersfield *Californian:* Rosamond, a station on the Southern Pacific a few miles this side the line of Los Angeles county, is the metropolis of Antelope valley, an extensive tract of good soil, embraced in a peculiarly healthy, invigorating climate. The valley has not yet been sufficiently beautified to attract the wealthy, æsthetic classes, and those who come now want soil to cultivate for a living, and profit if possible. Water for irrigation has been developed in sufficient quantity, as fast as required from artesian wells and streams in the mountains. A great deal of tree and vine planting is going on and there is a general disposition to create comfortable and beautiful homes, of which there will soon be several hundreds in that vicinity.

Lake.

ARTESIAN WELLS.—Clear Lake *Press*, Feb. 26: Few of our citizens have an idea of the number of artesian wells in this county. There are no less than four in Scott's valley, and at least two at Upper Lake. Two of the Scott's valley wells are on Scudamore's ranch and two on the Haycock ranch. All are between 80 and 85 feet deep. It is said that the parties who bored these wells, Messrs. Beach & Wambold, are willing to contract for a flowing well in Scott's valley, lined complete, for $100. At Upper Lake the trustees of the Middle Creek schoolhouse ordered a well to be bored 50 feet deep, and to their great surprise struck a magnificent flow of water at that depth. On the adjoining ranch Mr. Phelps had one bored, and also struck a fine flow at 50 feet.

Lassen.

SEVERITIES OF THE SEASON.—Susanville Cor. Reno *Gazette*, March 3: For a month now, with but few fair days intervening, we have been visited with snow and rain, and nights of exceeding cold, the mercury standing below zero. Since the commencement of the storm nearly seven feet of snow has fallen, and much rain. Much stock is reported to have perished in the hills, and some parties have lost many of their sheep. A scarcity of hay is feared here in the valley before cattle can find feed on the hills.

Los Angeles.

THINNING OUT THE HARES.—Santa Ana *Standard*, March 5: The rabbit-hunt a mile northwest of Anaheim last Saturday was rare sport. About a dozen men and as many boys, all pretty well armed, constituted the crowd. The hunt began about 10 o'clock and closed about 5 P. M., when 161 grape-eaters were hauled in as the result of the day's sport. Some of the hunters didn't bring theirs in to the final count, but it is safe to say that nearly 200 of the pests were destroyed. Another hunt is announced for Saturday, the 19th.

THE CUNNING COYOTE.—Orange *Tribune:* A Modena-ite had some chickens, and an old coyote visited their roosting-place every night and carried one off. The Modena man then provided himself with a dog, which stood off the coyote for several nights, but then the latter changed his tactics. He brought another coyote with him, and while one of them engaged the attention of the dog, and coaxed him to follow him off, the other raided the hen-roost and carried off the pullet.

Modoc.

WINTER IN THE COUNTY.— Eagleville Cor. Reno *Gazette*, March 1: The snowfall during the month amounted to 33 inches, the greatest in this valley since 1868. The lowest temperature during the winter was 4°. To-day it is 50° with south wind cutting the snow very fast, which our people are pleased to see. Ward Bros., Hudspeth, Clark & Patterson, Tom Cummings, Murdoc & Son, our cattle kings, are losing a great many cattle, and Chase and Ross are both losing sheep wholesale. The Freeman Bros. just came into the valley from Madaline Plains, and report the snow there from 2½ to 3 feet deep, and stock in a starving condition. Our farmers are jubilant over the heavy snows from two considerations: first, that we are assured of fine crops the coming season; and, second, that they will be rid of their surplus hay that has been accumulating on their hands for the last three or four years.

Nevada.

PENN VALLEY PROSPECTS.—Cor. *Tidings*, March 2: The crop outlook for the valley was never better; about all of the tillable acreage is already sown to cereals, which are quite well along, particularly the summer-fallow, and the hillsides are rich in verdure. Past seasons similar to the present have resulted more advantageously to the farmers than those in which the rain fell earlier. The ground is thoroughly soaked. The snow has all disappeared, except on the north hillsides, where patches are still to be seen. Stock suffered severely during February, and only farmers who fed their animals pulled through without loss. What feed there is has no strength, having been kept back by the cold weather.

Placer.

SWEET ORANGES.—*Placer Herald*, March 5: Mrs. E. A. Walkup has growing in her yard at Auburn several orange trees, the oldest of which bore this season for the first time. The fruit is of fair size, fine form and color, and the sweetest orange we remember to have eaten. Some think our foothill oranges rather more tart than those of Southern California. We thought so at one time, but further experience has dispelled the idea. An orange is not ripe for eating as soon as it is colored, but our thinking so at first led to the belief that our oranges were more tart. Mrs. Walkup's oranges have been ripe some time, and eaten to-day a better flavored orange does not exist.

San Bernardino.

LUGONIA LOCALS.—Cor. *Valley Echo*, March 3: The route of the Fruit Belt railroad is now pretty well settled. Its terminus will be about two and a half miles east of Lugonia, and one mile west of the famous old health resort, "Crafton Retreat," which will accommodate every one in this end of the valley south of the Santa Ana river. When run north over the river, it will tap every settlement from Highlands to San Bernardino, thus scooping in the entire trade. A large cannery at the terminus seems beyond doubt. Every one conversant with the quality of the apricots and peaches raised in this valley from Pomona and Riverside clear east, concedes the palm to Lugonia, Redlands, Crafton and Highlands. The cannery nabobs know this and assure us that one will be built this season large enough to work up the entire crop of these fruits. This will give us a cash market at our own doors.

DRAFT HORSES.—*Press and Horticulturist*, March 5: Mr. A. J. Myers had a very fine Clydesdale stallion on the streets, Monday, that is a beauty. It weighs 1743 pounds, and was recently imported from Scotland. Mr. Myers has another that weighs 2030 pounds. The importer of good blooded horses and cattle is a public benefactor.

Santa Barbara.

CITRON.—Santa Barbara *Press:* We have been shown samples of preserved citron of commerce grown and cured in Santa Barbara. The citron will thrive wherever the lemon will grow, and the fruit ripens all the year round.

San Joaquin.

A PLAGUE OF COOTS.—Stockton *Independent*, March 5: Mud hens are doing considerable damage on Roberts island, near Lindstrom's ferry, over 300 acres of grain having been destroyed by them. They begin at the land's edge and penetrate about a mile inland, eating every spear of grain as they go. The farmers have used shotguns and muskets with good effect; poison has been tried, and thousands of the pests have been destroyed, but they do not seem to diminish in numbers.

IMPORTING GALLOWAYS.—Stockton *Independent*, March 2: Last week Wright Cowell, one of the most enterprising farmers in San Joaquin county, received from Colorado 85 head of black, Scotch Galloway cattle. They were purchased of Leonard Bros., Denver, shipped in three cars, and arrived in good condition.

Santa Cruz.

THE MILLER PLACE IN THE HIGHLANDS.—*Courier-Item:* The house sits back a short distance from the road on a level plateau at an elevation of 2215 feet and commands a grand view to the east, south and west of the magnificently timbered region that stretches to the shores of Monterey bay. The vineyard tract of 18 acres is inclosed by a close board fence six feet in hight and set in the ground 18 inches, and, as it was intended, is proof against the inroads of wild animals. The whole is under a fine state of cultivation, covered with vines of luxurious growth, mature age, and, at the time of our visit, loaded with as fine fruit as can be produced anywhere. Twenty varieties of foreign grapes are growing here, and the lands from which these varieties came could make no finer showing. Here are the Black Hamburg, Verdel, Hamburg, Black Morocco, Muscat of Alexandria, Flame Tokay, Golden Chasselas, White Nice, Cornichon, Emperor, Laga Blume, Gordo Blanco, Rose Muscat, White Malaga Raisin, Seedless Sultana, Black Malaga, Chile Rose, Bowker, Catawba—all good table varieties, to which the vineyard has been exclusively devoted. Besides the vineyard there are 40 acres in orchard. In part are a number of fine, large apple trees of such choice varieties as the Jonathan, Hoover, Pippin, Bellefleur. The French prunes are making a fine growth. In fact every variety of fruit kindly takes to the situation. The soil is rich beyond comparison, climate perfect, water and wood abundant, and San Francisco but 2½ hours distant.

FINE FIGS.—*Sentinel*, March 5: We have sampled some white figs raised by Peter Peterson, Ben Lomond, and dried in the sun, self-sugared, that were of fair size, bright color, and as delicious as any we ever tasted. The man who has the land and climate to produce such fruit has a fortune, and we are informed that equally good figs can be produced and prepared all over Ben Lomond. The owners of fruit lands in the Santa Cruz mountains do not realize the fortunes of which they are possessed.

Shasta.

FALL RIVER ITEMS.—Cor. Redding *Democrat*, Feb. 24: The deep snow has caused the rabbits to be very destructive on young orchards. Stock is doing well, almost every one being prepared with plenty of feed, and we fear no loss, unless it be hogs, as grain is rather scarce and high to feed at the present low price of pork. Every week during the winter has witnessed the arrival by stage of more or less people from the East, and all seem to be well provided with money and are in search of homes.

Sonoma.

PROFIT IN PEACHES.—*Index-Tribune:* Mr. R. L. Watt, whose farm is located a few miles southeast of town, has a small peach orchard of two and a fourth acres. From this was netted the past season, after paying expenses of cultivation, packing and shipping, an even $610. For 10 years the trees in this little orchard have been steady, prolific and profitable bearers, and in only one instance have they failed to produce a good crop.

HOG CHOLERA.—Petaluma, March 5: Notwithstanding statements to the contrary, hog cholera does prevail in some parts of Marin and Sonoma counties; and it was introduced by a drove of hogs from S. F., landed about three weeks since, at Marshall's, on the N. P. C. R. A S. F. man was the ostensible owner. Most of the 240 head have since died, and the disease has been communicated to other hogs in every neighborhood where they were sold, and in at least one instance on a ranch that the diseased hogs merely passed through.

Tehama.

COUNTY GROVE AND ORCHARD.—*People's Cause*, March 5: The Board of Supervisors have decided to plant the hospital ground in fruit and shade trees, to be selected from the best nurseries. The fruit trees will consist of apple, pear, plum, prune, nectarine, apricot and orange. About 500 of these will be planted. The shade trees will consist of fig, mulberry, walnut, chestnut and almond, of which varieties about 250 will be planted. J. H. Brown started for Niles this morning, and will select the trees.

MAPLE SYRUP.—H. C. Wilson in Red Bluff *News:* Up in the foothills the other day, on my old Hickman ranch, I discovered that the white maple tree in the yard was tapped and running sugar-water. I spoke to Mr. Netzer about it, and he said: "I have been making maple syrup; look here." He had a can half full of as fine maple syrup as I ever tasted in any sugar camp. This tree is of the white maple variety that grows up in the canyons all over this State and Oregon. Who says we can't have sugar orchards in Tehama county?

Tulare.

HIS HEREFORDS APPRECIATED.—*Delta:* All the fine thoroughbred and graded Hereford cattle which C. B. Smith brought to Tulare have been sold. The importation and raising of fine stock is a most promising sign of the county's prosperity, and it is a pleasure to chronicle the success of those who thus contribute to our benefit.

SEEKING PASTURES.—Visalia *Times*, March 3: One hundred head of horses and mules from Stanislaus arrived in Tulare county this week for pasturage on our alfalfa fields. The parties bringing them say that feed is scarce in their section, and they can pasture stock in this county cheaper than at home. About 300 more horses are on the way here from San Joaquin and Stanislaus counties.

THE lambing season is about over with many of our sheepmen, and has proved very profitable with most of them. An increase of 104 per cent is claimed by Luke Howell, of Fountain Springs. Messrs. Hurlburt & Fay, of Deer Creek, had 100 per cent.

Sutter.

MENDING LEVEES.—*Farmer*, March 4: Henry Bolton, of Meridian, informs us that the break in the levee on Joseph Girdner's place was not more than 75 or 100 feet in width. Mr. Winship, who rents the place, lost about 80 acres of grain. The breach has been repaired, and a large force of men are at work on the break on the opposite side of the river. Work is being pushed both day and night, and will soon be completed. Prospects for a large crop in No. 70 this year are very flattering.

Yolo.

NOVEL HORSE-POWER.—*Democrat*, Feb. 24: There is on exhibition, at Glenn & White's planing mill, a new kind of horse-power pump. The horse-power is a gigantic hollow wheel, made of wood and joined with iron, and is over 16 feet in diameter. The horse is placed in this and started, the wheel soon attaining considerable speed. A brush wheel on the shaft works with another similar wheel, which in turn works the pump. The wheel is so light in all its bearings that the smallest child can make it go when not connected with the pump.

Yuba.

EXPERIMENTING WITH COTTON.—Wheatland *Graphic:* J. M. C. Jasper has procured a lot of cotton seed, and intends to plant it on his ranch as an experiment. H. Roddan has grown a few cotton plants in his garden outside of town, and they seemed to thrive well and produce abundantly, with very little care. Some of the specimens from his place have been pronounced fine by those familiar with the plant. If Mr. Jasper is satisfied with his experiment in cotton planting, he will set apart a good-sized area, and go into the planting business to see if it will pay to raise cotton.

NEVADA.

LIVE-STOCK INCREASING. — Reno *Gazette:* That stock-raising is fast becoming paramount to all other interests of the State, is evinced by the fact that the taxes assessed in Elko county to cattle-raisers, and live-stock interests in general, aggregate $1,793,000; and all other property aside from the Central Pacific's, a little over half a million.

Stockton Notes.

[Written for the RURAL PRESS by MRS. W. D. A.]

Any one, looking from an observatory over this growing city of four square miles, the entrepot set on Stockton channel, of the State's greatest arable valley, and of a county of 1450 square miles and over 32,000 people, with the best health record in the world, and grateful breezes blowing up through the funnel of the mountain-pass, and no longer slush and mud in the streets; then away over the green, unequaled grain-fields, with their spreading oaks, and homes with orchards and vineyards, and the rim of San Joaquin's fertile islands and a flash of its waters, and the broad expanse of its unreclaimed lands or tules in the distance, the serene level relieved by the Sierras and the low Coast Range, with Mt. Diablo 30 miles away, would wonder that this county had not boomed before. But now the go-ahead "County Board of Trade," helped by the papers and citizens, have an immigration agent in San Francisco, and have secured an agreement to sell at reasonable rates, conditional for vineyard and orchard or any diversified crops—a good move to save hired men from the demoralizing idleness of the long months between the short harvests of wheat-raising.

They sent 2000 copies of the Stockton *Independent's* agricultural map, and accurate descriptions of the county and its inducements for industrious home-seekers, to the Mississippi valley and eastward, and T. G. Goodman, G. P. and F. A. of the S. P. C., volunteered to distribute their pamphlets, and other matter showing up the excellence of this section of the State, on all of the company's lines, gratuitously.

Lodi believes every tub must stand on its own bottom, and in concert with Stockton has a "Northern Board of Trade," an up-and-doing boom of that part of the county's towns.

A $30,000 pavilion is to be built at once on Washington square, with elegant grounds around it and no gambling nor whisky-drinking near it.

The three accepted bids on the $250,000 courthouse are under consideration, and the lucky one will soon be known. [The Board of Supervisors of San Joaquin county, at a meeting held on the 7th instant, awarded the contract to J. A. Moross & Son, of Detroit, Mich., for the sum of $239,083.35.—EDS. PRESS.]

Growing weather prevails, and with a few showers the crops are assured though only 6.25 inches of rain have come yet. Grain is looking finely.

Stockton, March 7, 1887.



Stone the Woman.

Yes, stone the woman—Let the man go free,
Draw back your skirts, lest they perchance
May touch her garment as she passes;
But to him put forth a willing hand
To clasp with his that led her to destruction
And disgrace. Shut up from her the sacred
Ways of toil, that she may no more win an
Honest meal, but ope to him all honorable
Paths where he may win distinction;
Give him fair pressed down measures
Of life's sweetest joys. Pass her
If she puts out a poor polluted palm,
But lay thy hand in his on bridal day,
And swear to cling to him
With wifely love and tender reverence;
Trust him who led a sister woman
To a fearful fate.

Yes, stone the woman—Let the man go free,
Let one soul suffer for the guilt of two—
Is the doctrine of a hurried world,
Too out of breath for holding balances
Where nice distinctions and injustices
Are calmly weighed. But ah, how will it be
On that strange day of final fire and flame,
When man shall stand before the one
True Judge? Shall sex make then
A difference in sin? Shall He,
The Searcher of the hidden heart,
In His eternal and divine decree,
Condemn the woman and forgive the man?

—*Richmond Whig.*

The Arcadian Kitchen.

EDITORS PRESS:—A deep chasm of cruel circumstances has intervened since I had the pleasing privilege of displaying before your readers my blunders, trials and experiences in Arcadia. Since then the dread summons which awaits us all called from me my helpmate in trials, making dreary and desolate my hearthstone, and empty and void all my earthly aims and purposes. It also forced me into a closer acquaintanceship with kitchen drudgery and household duties. I remember vividly my letter on this all-important subject to the PRESS a year ago and the numerous letters in reply. This compulsory experience awoke in me a deeper and keener sympathy for the slave of the kitchen than ever, and made me feel for the soul dreaming that it was made for nobler things, compelled to grow through the daily routine of cooking, cleaning, scrubbing, and taking care of a growing family and its education.

Our learned theologians have been introducing into the revised editions of sacred writ, the words *sheol* and *hades*. I can assure them that the word *kitchen* would give a clearer and more impressive idea, and be quite as true to the original.

I entered into my duties with an almost virgin experience. My knowledge of the culinary art was confined to the memories of the glorious and never-to-be-forgotten days of flapjacks, coffee, and beans. Physically prostrated, my heart bowed down in sorrow and my spirit in rebellion against what seemed an uncalled-for visitation. I stood thus unprepared face to face with household duties, in which every corner invited attention, and dust defied disturbance on every shelf and article of furniture. The washing machine, too, stood yawning and waiting for the increasing pile ready for it, soiled, and conveying strong and imperative hints in the shape of rents and buttonless spaces. The children needed attention, and it would have provoked a smile from an old maid to have seen my confused efforts to determine the gender of clothing, and how the mystic articles should be adjusted to the corporeal demands of our future presidents. Just then, I am certain, a spark of pity must have been awakened for me in the breast of the presiding genius of hades—*kitchen*, I mean.

In my confusion and distress my neighbors were more than kind, and inconvenienced themselves to assist me, and I remember it all with the deepest gratitude. But what could they do; they themselves the slaves of the kitchen, with more to do at all times than they can satisfactorily accomplish? They simply had, in common with slaves, to suppress the sympathizing instinct to become the angels their higher nature aspires to.

So I had to face my own treadmill. Manlike, I made out after a fashion. Did manage to present a tolerable table, where there were no fault-finders, or at least dare not find fault; and, thanks to an early Californian education, did make fair specimens of biscuits; but bread and rising, and all that sort of thing, only reached a certain approximation of success, and even to this day remains in the realm of mystery. Flushed with apparent success, I sometimes venture into the higher grades of cooking and essayed puddings and other fancy productions, and, armed with Marion Harland and the "Dictionary of Every-day Wants," I sailed in. I made dumplings once and got recipes mixed, and what no doubt would have made excellent doughnuts had to do duty as dumplings; yet no one complained. Do not tell me that the heart is totally depraved.

Still I might have wrestled with all these difficulties, and perseverance might in time have measurably overcome them, while the men and children never grumbled, and have done my duty in outdoor work, after a fashion, had it not been for laundry troubles. I could wet the clothing and torture it in the washing machine and hang it out to dry, but I could not find time to iron the dirt in. If my family had been all boys, we could all have gone on in blissful ignorance of ironing, but it was otherwise, and there was no dispensation.

While the momentum of good housekeeping, which had been, had not yet spent all its force, appearances kept up tolerably well; but even that could not last long, and bit by bit, insensibly, I lost ground and every day found it harder to catch up, until outdoor and indoor work got into a fearful snarl, and I was mute with despair. Just then, at the opportune moment, Providence or my Oakland friends sent me a ministering angel to straighten things out for me, which she did. I thought things were tolerably decent; but she had microscopic eyes and saw dirt invisible to me, even with good glasses. Washing that I had put through in three hours took her three days to restore to their normal cleanly condition. I had dreamed that I was an excellent laundryman, but my fancy was only of such stuff as dreams are made of—a delusion and a snare.

Oh, the relief that followed! I was not aware of the amount of work I had been doing till the incubus was lifted from my mind and shoulders. Then I fled from the kitchen and left her mistress of the situation. And do you think I would let such an angel go until she blessed me? No, indeed; she has been retained permanently. And the readers of the PRESS I am sure will not blame me.

With the compulsory insight I have had into kitchen duties, and the lessons I have learned, I'm now in a better position to review the many excellent replies, direct and indirect, to my letter of a year ago by "M. B. D," S. P. Snow, "A Farmer's Wife," Carpinteria, "Maid of all Work," "An Old Maid," "An Old Bach," "A Girl of Twenty," etc. That is, if you do not think such a review out of date or stale. I do not think that the question was solved, nor do I know that under ordinary circumstances it can be solved. THE NOVICE.

[It is not too late to take up interesting experiences.—EDS. PRESS.]

A Tired Mother's Victory.

This tender story of a mother's experience is published in the *Christian Weekly*. She has laid her table with great care and pains for a company of distinguished guests, when her little girl accidentally overturned a tureen of gravy on the snowy cloth.

"What should I do? It seemed a drop too much for my tired nerves—many drops too much for my tablecloth. I was about to jerk my child down angrily from the table, when a blessed influence held me. I caught the expression on her face; such a sorry, frightened, appealing look I never saw, and suddenly a picture of the past came and stood out vividly before my mind's eye. My child's face revealed feelings which I had experienced 20 years before.

"I was myself a little nervous girl, about eight years old, in the happy home of my childhood. It was a stormy day in winter. It was soon after coal-oil lamps were introduced, and father had bought a very handsome one. The snow had drifted up against the kitchen window; so, although it was not dark, the lamp was lighted. Mother was sick in bed upstairs, and we children were gathered in the kitchen to keep the noise and confusion away from her. I was feeling myself very important, helping to get supper; at any rate, I imagined I was helping, and in my officiousness I seized the lamp and went down cellar for some butter; I tried to set it on the hanging-shelf, but alas! I didn't give it room enough, and down it fell on the cemented floor.

"I never shall forget the shock that it gave me. I seemed almost paralyzed. I didn't dare go upstairs, and I was afraid to stay down there. To make it worse, I heard my father's voice in the kitchen. He had cautioned us again and again to be careful of that lamp, and now there it lay, smashed to pieces.

"But his voice seemed to give me the impetus I needed to go up and meet the scolding or whipping, or both, which I felt sure awaited me, and which I really felt I deserved. So I crept up over the dark stairway, and as I entered the kitchen I met my father, with such a stern look upon his face that I was frightened. I saw there was no need to tell him what had happened. He had heard the crash, and if he hadn't I guess my face would have told the story.

"The children stood silently around waiting to see what father would do, and I saw by their faces that they were (horror-stricken, for that lamp had been the subject of too much talk and wonder to be smashed without a sensation. As for me, I felt so frightened, so confused and sorry, that I couldn't speak. But upon glancing again at father I saw the angry look die out of his eyes and one of tenderest pity take its place. I doubt not that he saw the same look in my face then that I saw in my child's face to-day. In a minute he lifted me in his arms and was hugging me close to his breast. Then he whispered, oh so kindly: 'Never mind, little daughter; we all know it was an accident, but I hope you will take the small lamp when you go down cellar again.'

"Oh, what a revulsion of feelings I experienced! It was such a surprise to me that I was suddenly overwhelmed with feelings of love and gratitude, and burying my face I sobbed as if my heart was breaking. No punishment could have affected me half so much, and nothing can efface the memory of it from my mind.

"How I loved my father to-day, as the sight of my little girl's face brought it all freshly before me! Will she love me as dearly, I wonder, 20 years or more from now, because, moved by the same impulse that stirred my father's heart in that long-ago time, I was able to press the little frightened thing to my heart, and tell her kindly that I know she didn't mean to spill the gravy, and that I knew she would be more careful another time? Will she be helped by it when she is a mother as I have been helped by it to-day?"

Home for Aged Women.

The *Record-Union* of February 26th gives the following report of progress in the work of the Marguerite Home for Aged Women which is located in Sacramento:

The annual meeting of the Board of Trustees of the Marguerite Home for Aged Women was held at the Home, corner of Seventh and O streets, on the evening of Founder's day, February 25th. From the reports of the officers it is ascertained that the affairs of the institution have prospered during the year, and although there have been a few cases of illness, none of the aged inmates have died. The income from all sources has amounted to $5580.22, while the total expenses aggregate $5494.50. It is now three years since this elegant property, with a liberal endowment, was given by Mrs. Margaret E. Crocker to the Board of Trustees for the benefit of such aged women as were deemed worthy of admission. One of the first acts of the board was to determine how many indigent old ladies could be supported upon the income of the endowment fund, and to arrange for the admission of those who could be received upon this basis. In a short time the list belonging to this class was entirely filled, and as there still remains in the spacious building room for more inmates, it was determined by the Board of Trustees to form an additional class for the benefit of those aged and homeless women who, having some means, desired to avail themselves of the benefits and advantages of the Home. In accordance with the British annuity tables, a rate depending upon the age of the applicant was fixed upon for admission and life support, and a number of very intelligent ladies are now being cared for upon these conditions.

Taking all together, the inmates form a body of good women, who easily adapt themselves to their situation, and who fully appreciate the munificence of their benefactress. In no part of the world can there be found an institution of this nature which excels the Marguerite Home, either in its management or the character of its accommodations and surroundings. Our people are justly proud of its success, and visiting strangers are loud in their praises of the noble woman who planned its foundation. The trustees are Messrs. Carroll, Miller, McCreary, Simmons and Gallatin, while the active management is vested in the lady directresses—Mesdames McCreary, Simmons and Gallatin. The Matron is Miss Fanny Safford, and the attending physician Dr. W. A. Briggs. Applications for admission can be made through the secretary, Charles F. Dillman, at the banking-house of D. O. Mills & Co.

Unrequested Advice.

The following was handed to us for publication by a gentleman who says he knows a case where this advice will fit to a dot, and if the party has sufficient good judgment to appreciate it, he will pop the question the next time he calls:

A few days ago Civil Service Commissioner Edgerton put a young lady candidate through an examination that she did not bargain for. The young lady came into his office with a face as red as a full-blown rose. But on a close examination the Civil Service Commissioner, who, although old in years, is young in sight and heart, discovered that this rosy hue was secured by paint and powder. Mr. Edgerton hates anything unnatural or artificial, and he looked at the young lady for awhile, and asked her if she ever expected to have a husband.

The young lady was rather startled at the question, but answered:

"Certainly."

"Then," replied Mr. Edgerton, "if I was a young man and calling to see you, I would prefer to see your face. Do you suppose a man is going to fight his way through the powder and paste on your cheeks when he wants to kiss your face? No, Miss; the young man wants the true article, not a mouthful of paint and powder. You have a good complexion, good color and good skin; why do you plaster yourself up with this stuff? Use soap and water, and you will find the young men will like you better. When I was young, the girls were natural and did not daub their faces all over with this stuff."—*Exch.*

Driftwood.

[Written for the RURAL PRESS by FANNIE AVERY.]

QUERY.

What will become of the driftwood
That floats on Life's vast sea,
Out with a current swift and rude
Into Eternity?

REPLY.

God will look after the driftwood,
For boundless is His grace.
His love is wondrous kind and good,
And infinite as space.

The Training of Children.

[The following hints from Madam Willard, mother of Frances E. Willard, are taken from the *Union Signal* for the benefit of Californian mothers.—EDS. PRESS.]

I have been asked to write some of the thoughts suggested by my experience in training my own children. We lived in Oberlin, Ohio, when my children were in their infancy. There were mothers' meetings at stated times. I felt my utter inefficiency to these young immortals and I was almost always present at the meetings. I hoped they would tell me just what to do, so that having the approved formula or program, I might make no mistake. But new conditions were constantly arising, and in my despair I said to the wise friend, "I don't learn anything from these meetings! I don't know what to do." He said, "They are making an impression upon you all the time." It gave me a little comfort to think that perhaps down deeper than my consciousness I was gaining a gleam of light.

And now, first of all, I would insist, to teach your children to *be truthful;* by all the incentives that occur to your prayerful thought, keep their love and confidence so that they will be open to you as to the day.

Then I would recommend the do-everything method, according to the varying needs of your priceless charge. If its nerves are startled, quiet it the best you can. Don't put it in a dark room and let it cry itself to sleep. It would be more motherly to hang it to the limb of a tree, like an Indian baby, where it could see the light and feel the gentle motion of the breeze. Don't regard it as a mere animal that needs only to be fed and clothed. It needs sympathy very early; it can smile back your love when only a few weeks old. Never punish a child when it can think you are in anger, or about to take its life. It will be so frightened as to lose all self-control. You may think it obstinacy when it is a frenzy inspired by the fear of one in whose power it is utterly helpless.

Mothers should try to keep their health so as to be bright, agreeable company for the older children, and to be patient with the little ones. I know this is easier said than done, especially if the mother is sick or overborne with care; but the attempt, if partially unsuccessful, will not fail of its reward. The habit of unselfishness and kindness cannot be too early impressed. The mother should be in spirit and manner, or should aim to be, such as she desires her child to be. I would not recommend over-indulgence, but genuine tenderness and love cannot go to an extreme in the helpless years.

If complications arise between the children, do not let them accumulate. Don't let them lie awake all night dreading punishment in the morning. Settle them at once upon their own merits without referring them to any umpire but yourself.

When they are old enough to commence study, do not be indifferent to the trials they meet with in the effort to solve difficult problems, but do them often yourself; don't be so fearful about weakening their self-reliance as to defeat your desire for their high achievement by allowing them to be discouraged in the outset. Should a child show a strong bias toward any laudable line of life that promises self-support and easy independence, I would encourage it. Try to cultivate a tender conscience, a delicate sensitiveness to right and wrong. I would place the acquisition of character infinitely before that of wealth, desirable as is a moderate share of the latter. Wealth ends with life; character is immortal, toward perfection of which all our efforts should tend.

I must not forget my pet idea, to be more careful to praise children for doing well than to chide them for doing ill. When the children are young and in the mother's care more directly, there may be a feeling of comparative safety, but when they blossom into young men and women and begin to assume personal responsibility, it is the hour of doom, that threatens to make or mar all her handiwork. Who is wise enough to counsel them? Silence seems safest, but silence would be treason; the mother must have the heart of her loved ones in keeping in this hour of destiny; no one can be consulted with such safety as the mother, and she will need the electric light of Deity to guide her in this supreme emergency. Who can arrest the flying hours? What issues hang upon the decision of a moment? She can find refuge only in Him who has said, "If ye ask anything in my name I will do it." Here she may anchor in a sublime faith, that young, inexperienced and adventurous feet may, through infinite riches of grace, be led into paths of safety, usefulness, and to a lasting peace.

Young Folks' Column.

The Adventures of Two Vain Cats.

[Written for the Rural Press by Adelaide Samson.]

"Good-morning!"

"My name is Spots; now, what you want with me?"

"Good-morning, Master Spots. I was about to ask for a little bite of something to eat. Will you kindly give me a drop of skimmed milk, or tell me where I can find a mouse?"

"Umph!" said Master Spots, jumping off the fence where he had been eyeing a suspicious hole, and taking a good look out of his green orbs at the stranger. "Well," he said at last, "you have rather a poor appearance; a good, square meal wouldn't be likely to harm you; but how does it happen you're out of a home? I don't like the looks of it, that's a fact." And fat, well-fed Spots jumped back on the fence, feeling as though he had been much too tender-hearted for a cat of his principles.

"Oh, good sir," replied the other, meekly, "the barns are overrun by cats, and kittens are so plentiful that a poor stranger like me has no chance at all. You see, sir, I am a little stiff about the right paw, the result of an accident while working down at the wharves. Just look how thin I am; you can count my bones, and—" here he paused to wipe away a tear—"and, sir, I'm an orphan."

This last appeal was too much for the good-hearted Spots; he was conquered. "Come, come, young man," he replied, "you have been unfortunate. Follow me, but mind you keep close to the wall, for my mistress is very particular about vagabond cats. She would set the dog on you in no time."

"Ah! sir," replied the other, humbly, "you call me a vagabond. It is a hard name, but alas! too true—that's what I am, a vagabond and an orphan. Would you rather have me walk on the other side of the wall? I wouldn't like to get you into trouble on my account."

"Oh, no," said Spots, completely mollified by this becoming behavior. "I guess I have influence enough to protect you. Here we are at the barn. Crawl right through this hole; that's good; now drink this milk—I am sorry there is not more—and here's a bone with a little meat left on it—chicken, I think. Yes, I always have chicken Mondays, on account of the Sunday dinner."

"They're better alone, though, now confess!" said the other, winking knowingly.

"Sir, remember your position," replied Spots, bristling his tail with indignation. "I am an honest cat, I wish you to understand. Have you finished?"

"Not quite, sir," replied the other, perceiving his mistake immediately, and changing his familiar tone with great dexterity. "Ah!" he continued, "what an advantage to be in your society! I have led a wild Bohemian life—there is little good in me. You have a beautiful home, kind sir, as beautiful as you deserve. How fragrant this hay! how soft those potato bags! Your bed, I presume? And your mistress is kind?"

"Yes," replied Spots, forgetting his ill-humor, "very kind—I want for nothing—a saucer of milk twice a day, plenty of bones and scraps. Of course I work hard," he added, somewhat severely. "If I say it myself, I don't think there is a farmhouse within ten miles that has fewer rats or mice than this. I never fight with the dogs, and the chickens feel as much at home with me as though I never picked their bones. By the way, Master —"

"Dots is my name. You perceive that my fur is dotted all over with white dots."

"Well, I was about to remark, Master Dots, that we have been, contrary to my custom, spending an hour in idle gossip. You have had a plentiful breakfast; now suppose you go to the loft and catch a few mice, while I return to the garden."

"A thousand regrets, Master Spots," replied Dots, rather quickly. "I really cannot remain this morning. I've made an engagement to meet a friend of mine on a back shed. He promised to find me a home, plenty of work, little to eat, but good enough for me. Your charming society has made the time pass too quickly. I must tear myself away; so good-by, dear Master Spots. If you will permit me, I shall return to-morrow at the same hour, to pay you my respects."

"A most agreeable young man," said Spots to himself, as Dots jumped over the fence and disappeared; "misguided, it is true, but perhaps my influence will be the means of his adopting more steady habits. I must save a few tidbits for his breakfast to-morrow. Poor boy!"

"Horrid old preacher!" muttered the other, sunning himself in a safe corner, and settling for a nap; "gives me a couple of bones, then expects me to work for them. Ha! ha! you don't know me, Master Spots. Now for a nap. I'm pretty sure of a breakfast to-morrow. Ha! ha!"

After this Spots and Dots became the best of friends. Every morning, after looking carefully around, Dots would slip into the barn, where Spots would have a dainty breakfast waiting for him. Dots had been a great traveler, and he had seen so many curious things, had such a store of amusing anecdotes to relate, that Spots had never found the time pass so pleasantly before.

"Now, Spots, bring over that bone; if it's pork, I don't want it," said Dots one morning. You see he was quite at home now, and ordered Spots about most unmercifully. "It *is* pork! What a stingy old thing your mistress is, to be sure! Here, give to me, can't you? It's better than nothing. I wouldn't stand it if I were you, Spots. Sleeping in a barn, too, on potato sacks—ugh! it is simply disgraceful. You've no pride at all. Now I've got an intimate friend, two, in fact—that is to say, we know each other by sight. I wish you could see the style they live in; wouldn't you open your green eyes!"

"This *is* rather shabby," said poor Spots, looking around and feeling discontented for the first time, "and potato sacks are not very—warm."

"*Warm!*" exclaimed the other, scornfully, "I should think not. Well, my friends sleep on satin. Just think of it! in beautiful baskets lined with satin, one pink and one blue. Why, your mistress hasn't anything so fine in her whole house!"

"Satin baskets!" answered Spots, actually blinking with surprise. "Oh, are they in the barn, Dots?"

"Dear me, Spots, how ignorant you are! One can see you have never traveled—of course not! The baskets are laid in the chamber of their mistress, or on the foot of her bed. She calls the cats Blonde and Brunette."

"What aristocratic names!" sighed Spots, enviously. "Blonde and Brunette! so different from Spots and Dots."

"And their mistress," continued Dots, glibly, "is the loveliest, sweetest little lady you ever saw. Every day she ties a different colored ribbon on Blonde and Brunette. And as for eating pork, why, Spots, they wouldn't even touch chicken! They have fish cooked expressly for them—fish and liver every day—think of that!"

"Fish and liver!" echoed Spots, almost crying. "I never have it, Dots, never; but how do you know so much about them, anyway?"

"Because I don't pass my life in a musty barn looking for rats," was the sharp answer. "I travel around and keep my eyes open. I say, Spots, you've got your faults, but you mean well. Come with me and I'll show you my friends."

So now see our two friends jumping the fence and disappearing toward the town.

Ah! Spots, foolish Spots! when and how will you return to your home?

"So, so," said the thrifty housewife, as she went to the barn. "What has come over Spots? He is not worth his board lately. The mice are running wild—keeping bad company, I'm afraid."

"Now, Spots," said Dots as they neared an imposing residence embowered in luxuriant trees, "I see my friends on the porch with their mistress. You had better keep in the shade, as they are very particular about vagabonds—might set the dog on you, you know," he added viciously.

"Will I walk on the other side of the street?" asked Spots, trying to make himself as little as possible.

"Oh, no," replied Dots, patronizingly; "but remember your position, that's all."

"Thank you, Dots; you are very kind to me," answered Spots, dropping behind a little.

"Look, Spots," said Dots at last, "look through the fence; now what do you say to that?"

Spots could say nothing; he could only open his green eyes as big as saucers and look and look. Never, even in his dreams, had he imagined anything so beautiful.

On the shady, vine-covered porch reclined a bewitching young creature in a low bamboo chair. In her arms she held two cats—one, like a big snowball, was climbing on her shoulders, rubbing its head against her soft cheeks, purring happily at the same time.

"Blondine, sweet Blondine!" exclaimed the young lady, "come, darling, let me tie this blue ribbon around your neck."

The other cat, a mass of black, silky fur, lay in her lap drowsily winking and blinking, too lazy even to be jealous. Then the dainty hand caressed it gently, and the low voice murmured: "Dear old Brunette! don't you want a pretty ribbon too, or will I put you to bed?"

Then Spots perceived the two satin-lined baskets with their frillings of lace and delicate trimmings.

"What do you think of that?" repeated Dots, triumphantly.

"Dots, it is grand—almost too grand to be true," answered Spots in an awe-struck voice; then, with a sigh as he thought of the plain wooden barn, he added: "Hadn't we better go home?"

"You've no spirit!" exclaimed Dots, contemptuously. "It's just as I thought. So you want to go back to pork-bones and potato sacks, do you? Pshaw! I almost feel like giving you up. I did have a plan by which we might have bettered ourselves, but what's the use?"

"Try me, Dots," pleaded Spots. "Dear Dots, don't give me up. Think of my poor advantages."

"Well," said Dots, with a great show of magnanimity, "I'll try you. Now this is my plan: Though you may not think so, there is a remarkable resemblance between you and the beautiful Blondine. Your fur is just as white. If there were any possible way to get rid of those ugly black spots, one could hardly tell you apart."

"And you, dear Dots," answered Spots, trembling with joy. "I noticed how much you were like in form and color to the handsome Brunette. True, you have a few paltry white hairs——"

"Just so," struck in Dots, decidedly. "I did not think you were so observing. Just so, Spots," said Dots, his voice becoming very solemn, "there is no question about the matter—*we must get rid of those terrible deformities.* Without them our fortune would be made. You would rival the fair Blondine; I, the superb Brunette. I know a place down at the wharves where we can hide for a few days. By the aid of our claws and teeth we can pull out the hated impediments to a glorious future. We will suffer a little pain, but what of that? Once the deed is accomplished, we will present ourselves before the young lady. She will immediately be struck with our wonderful beauty; she will unfasten the gates, lift us in her arms and place us with tender caresses in two satin-lined baskets. Farewell to the old barn, Spots; farewell to rats and mice. A glorious future awaits us. Come."

"Yes, come," answered Spots, completely overpowered by this glowing picture. "Come!"

"How do I look, Spots?" asked Dots, a few days afterward, as he called Spots from his hiding-place.

"O heavens!" thought Spots, his heart giving a big jump; "I wonder if I look like that?"

And truly Dots was miserable-looking. His fur, always coarse and scraggy, presented a succession of unsightly scars, wherever he had attempted to pull out the white patches; his eyes were large and wild-looking from suffering, and every bone in his body seemed to vie with each other in its endeavor to show itself. "But," thought the soft-hearted Spots, "I dare not tell him the truth. Poor Dots! how badly he'll feel when I am chosen and he is left out in the cold. But I won't forget him, indeed I won't!"

"Well, can't you answer?" snapped Dots, impatiently. "Don't look so jealous and envious!"

"Oh! you look beautiful, Dots—beautiful," answered Spots, feebly. "And I?"

"What a guy!" thought Dots, chuckling; "and I suppose he thinks he is just as fine as I am. Ha! ha! I'll just fool him for the fun of seeing him put down afterward. Won't he feel cheap when he sees me lying in the satin basket? You look simply *lovely*," he said out loud, "too lovely for anything. I can almost see you with a ribbon around your neck. Ha! ha!" he chuckled again to himself.

"Poor Dots!" murmured Spots, pityingly.

Now see the vain cats proudly walk with arched backs and bristling tails toward the vine-covered porch. Yes, the young lady is sitting as before in the bamboo chair, holding Blonde and Brunette in her lap, while scattered around are numerous guests laughing and talking. And Spots and Dots place themselves right in front of all the company—two cadaverous, pitiful-looking objects.

"They won't notice us," whispered Spots at last.

"Suppose we sing? That is sure to attract attention," returned Dots. "Now commence. Think of the satin baskets and the fish."

Oh, what a yell—what a howl—now broke the stillness of the peaceful scene!

The young lady turned around with a start, gave a loud, piercing scream as she caught sight of the two hideous cats with wide-open mouths and green, shining eyes; then she sank back pale and trembling.

"Send them away!" she gasped, covering her face with her hands. "Send those horrid things away! Oh! oh! I'm going to faint!"

"Shoo!" cried the gardener, running up to the gate with a big stick, followed by all the gentlemen with their canes. "Shoo! you ugly, villainous rascals! What do you mean by frightening my lady with your ugly selves? Out with ye!"

Then up tore a fierce dog, rattling his chains and showing two rows of terrible teeth.

Spots and Dots fled, never stopping until they reached the banks of a lonely river.

"O Dots! Dots! My heart is broken!" cried Spots.

"You ugly thing! It's your fault this has happened!" hissed Dots. "If you only could see how you look! You thought you were beautiful, did you? Well, I just fooled you there. No wonder you frightened them—it's your fault."

Then Spots understood it all. He did not reproach Dots; he did not retaliate—he felt too keenly his disgrace. He had pitied Dots, but Dots had only mocked him. Yes, his heart was broken.

"Dots," he said, in a low voice, "I do not care to live any longer. I will throw myself in the river."

"Ha!" thought the wily Dots, "a good idea. Once Spots is drowned, I will return to the farmhouse barn. I will have a good home until something better turns up. Spots," he said out loud, "forgive my unjust reproaches. I will share your fate. Do you throw yourself in the river first; I will follow."

Then Spots, thinking his last hour had come, recalled with pain his ingratitude and faithlessness to his mistress. He thought of the farmhouse that had been his home for so many years—of the old barn—of the warm corner by the fireside, and a great longing came over him to take one last look before he should throw himself in the cold waters. Perhaps, himself unseen, he might catch a glimpse of his kind mistress—a farewell look.

"Dots," he said at last, "I have a sad duty to perform before ending my life. I must bid adieu to the old farm and my beloved mistress. Wait for me here. I will return this evening."

Before Dots could expostulate, Spots had disappeared.

At last Spots came in sight of the farmhouse—the dear, comfortable, sunny farmhouse, so peaceful, so quiet. "And it is my fault that I have lost it all. Oh, why was I not satisfied?" murmured Spots, as he gave one last long, long look preparatory to leaving again for the bleak river.

At that moment his mistress came out into the garden, and, shading her eyes with her hands, she peered searchingly around as though looking for something. Then she said, out loud: "I will call Spots once more; perhaps he will hear me. The farm is not the same place without dear old Spots—here Spots! Spots!"

Poor Spots could not resist that call. With one bound he threw himself at the feet of his mistress, rubbing his head against her dress.

"Spots! dear Spots!" she cried, lifting him up tenderly in her arms, "where have you come from? I am so glad, dear, dear Spots."

Spots could only purr and tremble with joy, looking with loving, pleading eyes at the kind, homely face. How cozy the barn after his absence; how sweet the milk; how soft the potato bags; but how much better than all the thought that he was forgiven.

"I will never leave my home again," resolved Spots; and ever afterward he remained steady and faithful.

I do not know what became of the wicked Dots. Perhaps he threw himself in the river, or perhaps he is still roaming around trying to lead other cats into temptation; but never again did he come near Spots, though often, in the midst of his happiness, Spots would murmur, "Poor Dots!"

Domestic Economy.

Recipes.

Editors Press:—I will send you a few recipes:

Cookies.—Two-thirds of a teacupful of butter, one coffee-cupful of sugar, two beaten eggs, two tablespoonfuls of milk, two spoonfuls of baking powder, one-half cup cocoanut; mix with flour as soft as can be well rolled out.

Cream Cake.—Two eggs, one-third of a cup of thick cream, one cup sugar, one and one-half cups of flour, one teaspoonful of baking powder.

Chocolate Cream.—Soak half a box of gelatine in half a cup of warm water for one hour. Add one-half a cup grated chocolate, one-half pound of white sugar, and one pint of new milk; stir all together and boil five minutes; then add half a pint of rich cream, boil one minute. Flavor with vanilla. Nora Bucknall.

Gubserville.

Stewed Sweetbreads.—Parboil, and carefully remove the skin without breaking the sweetbreads. Put them into a small stewing-pan with two ounces of butter, a teaspoonful of chopped onion, a tablespoonful of chopped parsley, one clove, a bay leaf, a teaspoonful of Worcestershire sauce, a half teaspoonful of salt and a half pint of white stock. Stand the pan on a moderate fire and simmer for 30 minutes. Dish the sweetbreads. Wash a pint of French peas in cold water, add them to the sauce; let the whole come to a boil, skim all fat from the surface, and pour the sauce and peas around the sweetbreads.

Stewed Mushrooms.—If canned, drain free from all liquor, turn them into a granite pan with one ounce of butter. Let fry five minutes, stirring constantly, then dredge thickly with flour, mix, add a half-pint of cream, stir until it boils, add salt and pepper to taste and serve at once. Fresh mushrooms are stewed in the same manner; of course, peeled and washed first. Mushrooms may also be baked in the oven, basted and served with a little melted butter.

Mole.—Put one pint of cold cooked mutton or veal into a saucepan, with a half-pint of stock, a half-pint of stewed tomatoes, a teaspoonful of powdered coriander seed, a small onion sliced, a tablespoonful of rice, a tablespoonful of chopped parsley, a half-teaspoonful of salt, an ounce of butter, and pepper. Cover and stew slowly for 20 minutes. Serve very hot on squares of toast.

Sponge Jelly Roll.—Four eggs, one cup and a half sugar, one tablespoon baking powder, beat the whites separately, and the sugar and the yolks together till very light, then add part of the whites, then a cup of flour, then beat well, then a little more flour, then the rest of the whites and stir easy, put it in and bake. Spread and roll as quick as you can.

Plum Pudding.—One pound of currants, one pound of bread crumbs, one-half pound raisins, one pound of suet chopped fine, four eggs, one tablespoon brandy, sugar and nutmeg to taste, orange and lemon peel candied.

Sponge Cake.—Four eggs, one tumbler each of white sugar and flour, two tablespoonfuls of sweet milk, one teaspoonful of cream of tartar, one-half teaspoonful of soda, lemon and salt.

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SAN FRANCISCO:
Saturday, March 12, 1887.

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See Advertising Columns.

The Week.

According to prediction, the clouds have flown, the air has warmed, and our glorious climate is here in all its deep delight and charm. With the season's production assured, with activity increasing in all lines of manufacture and trade, it is hard to find a man whose face does not wear a genial, happy expression, and who is not ready for anything which looks progressive, promising and enjoyable. Nor are the ladies and the children less influenced by the gentle manners of the elements. The city streets and parks are gay with costumes and equipages; the suburban and rural landscapes are enlivened by the ladies at their garden recreations, and the children at outdoor sports and flower-hunting. The whole State is full of joy and cheer and spirit.

The disposition toward improvement has been great this winter, notwithstanding the fact the rains were delayed. Building operations are brisk and real estate transactions extensive. Planting of tree and vine has been large, and tree-growers have sold close, notwithstanding the increased propagation. There is also, we are glad to note, an increased interest in forest and ornamental planting. It is plain that our State is to grow in beauty as it advances in wealth and population.

Henry Ward Beecher.

Imagination cannot conceive of anything more strange or dreadful than that a man should die. We can understand all his smiles and tears, his labors, tastes and ambitions, but when the word comes that one who has filled a wide place in our thoughts and affections has passed away, the event transcends language and thought. To see all the gates of the senses suddenly closed, to hear no longer the voice of a friend or loved one, to think that he is oblivious to day and night, passing seasons and current events, and has become a pale, cold marble form in the coffin—this has ever been the amazing spectacle of the world.

Henry Ward Beecher was born June 4, 1813, in Litchfield, Conn. He came of a hardy, brainy stock. His father, Dr. Lyman Beecher, was a power in the land. For 40 years if not the ablest, he was certainly the most noted clergyman in America. During the early period of his life young Henry gave no promise of success. He was a great awkward boy, thick-tongued, dull in study, and deficient in memory; and had any one turned a teacup or cast a horoscope in those days, it is not likely the vision of America's most potent orator would have been seen. At Amherst college he did not take kindly to the drudgery of mathematics and dead languages, and, it is said, was only granted a diploma out of respect to his father, who had long been one of the pillars of that seat of learning. But he devoured the library and made his mark in the college debates. The wing of the eagle panted for the liberty of the sky and the fresh, pure air of the mountains. He studied theology at Lane seminary under the tuition of his father, and as the young novitiate preached in the schoolhouses on the outskirts of Cincinnati, it was soon whispered that Henry was a "chip from the old block." In 1837 he married and accepted a call to a Presbyterian church at Lawrenceburg, a little town on the Ohio river near Cincinnati, and in 1839 was called to the Second Presbyterian church of Indianapolis. Here he soon attracted attention, preached to crowded houses, and the bold and fiery attack he made on the drinking, gambling and licentious habits, then rife at the capital of the State, in a course of lectures to young men, was the startling and dazzling precursor of his fame.

Going down to New York City to attend the great annual jubilees of the church, the meeting of the American Board of Home Missions and American Tract Society, he found the fat, sleek doctrinaires of these bodies trying to tread on pro-slavery eggs and not break them, and the soul of the young hoosier preacher was stirred within him, and, with the sword of the Lord and of Gideon, he smote them into confusion. A few noble men in Brooklyn had resolved to wash their hands of this evil by starting an anti-slavery congregation, and when they heard Beecher's speech, said one to another, this is our man for a leader. The result was he became pastor of the Plymouth Society in 1847, a little cluster of men and women who believed a black man had a soul worth saving. The straitened hall in which they worshiped soon bloomed into a spacious church structure on Orange street. There, on a broad platform and behind a little desk made of olive wood brought from Jerusalem, more brave words were uttered in behalf of the poor, the down-trodden and the slave, than in all the pulpits of the time. When Bancroft remodeled some chapters of his history for fear of offending the slaveholder, Pierpont revised the catechism of his church and Edward Everett went over 30 States with his lecture on Washington, leaving out the brave words of the wise Virginian warning his countrymen of this evil, Beecher prayed for the slave, preached against the evil, and would not accept an invitation to lecture before an association that refused to sell a colored man a ticket. He threw himself into the van of the anti-slavery movement, and his celebrated Minie-rifle sermons during the Border War in Kansas have become a part of the history of the times. It used to be said of the Border Ruffians, "Nor hell nor the devil can make them afraid," but they feared the terrible whip of Henry Ward Beecher. His earnest addresses in England in 1863 on the causes of the Civil War then raging over the land had a powerful influence in arresting the current of public opinion and turning it toward the Union. When Lee surrendered and the Confederacy caved in, the Plymouth pulpit first hung out the white flag of forgiveness. This great man had the soul of the warrior combined with the tender heart of woman.

As a preacher, Beecher was undoubtedly the most thoroughly rounded and complete man of the age. James Parton once said, if he had a foreigner in charge and wished to reveal this country, he would take him to Plymouth church, hand him over to one of the ushers and say: "Stranger, you have arrived; this is the United States, the New Testament, Plymouth Rock, and the Fourth of July—this is what they have brought us to." The great charm of his preaching was the spontaneity of feeling. Many men lose this in getting educated. They have great tanks of rain-water, barrels of well-water, but on their premises is no spring; it never rains on their land. A mountain spring supplied Mr. Beecher with fresh living water. He loved children, flowers, birds, and was extremely susceptible to the influence of music. He possessed to a wonderful extent the power of divining the human heart, and entering into sympathy with the joys and sorrows of men. It was this that endeared him to thousands, and now fills the whole land with sincere mourning. A great-hearted, eloquent man, ripe in years, full of religious emotion and the tenderest humanity and love, has passed away. No wonder the Legislature at Albany appointed a committee to attend his funeral, the public buildings of Brooklyn were draped, the flags at half-mast, and his vast congregation weeping as children. The Plymouth pulpit is vacant and will never be filled again. This prophet's mantle falls upon no Elisha.

The Grape-Growers' Convention.

The Grape-Growers' Convention began its sessions at the Grand hotel, in this city, on Monday, March 7th, and is still in progress as we go to press. The attendance is excellent, there being over 100 present at some of the meetings, and the representation is wide, for we see delegates from as far as San Diego on the south and Shasta on the north. The convention is held under the auspices of the California Grape-Growers and Wine-Makers' Association, of which H. W. McIntyre, of Napa county, is president, and E. H. Rixford, of this city, treasurer. The transactions of this society since its organization a few months ago demonstrate the timeliness of its establishment. It is, in fact, a revival and extension of an old society, which lapsed on the organization of the Viticultural Commission.

In opening the session President McIntyre made a brief address, touching upon a number of practical points. He congratulated the grape-growers upon the passage of the "pure wine bill" by the Legislature. He also urged the necessity of more exact and intelligent action in grape-growing and wine-making. He said:

I think we all know now that slipshod methods will no longer succeed. Soil, climate and other things should be carefully considered. We cannot make fine wines from grapes of large and heavy product. For really fine wines there will be a market at all times. Vine pests and diseases merit our closest investigation. I believe we ought to be alarmed at the phylloxera. Commence to eradicate them at once. We must uproot at once the injured vines. A little expense year by year in planting resistants will well repay the vineyardist.

The subject was also discussed by other speakers, and the value of resistant vines generally affirmed. There was on another day quite a long discussion of the existence of the phylloxera on a few vines used for study of the pest at the University, and a motion was made to request the Regents to destroy them. It was shown, however, that the danger of spreading from such source was exceedingly small and the value of having the insect for study at the University was large. The discussion ended by the passage of a motion to lay the subject on the table.

Hon. M. M. Estee, of Napa, delivered an excellent address, reviewing the whole situation of the wine industry in this State, its problems, successes, etc. We are glad that the address has been published in pamphlet form, and no doubt Mr. Estee will give a copy to any of our readers who apply to him for it. The distribution of such literature will be of great value to the grape industry.

Addresses were also given by Messrs. H. W. Crabb and E. C. Priber, of St. Helena, Arpad Haraszthy and Chas. Bundschu, of San Francisco, Prof. George Husmann, of Napa, and O. H. Merrion. Others will follow.

On Tuesday morning the election of officers took place with the following result: H. W. McIntyre, president; McPherson Hill, of San Francisco, first vice-president; F. P. Elsen, of Fresno, second vice-president; John T. Doyle, third vice-president; J. B. Stillman, fourth vice-president; E. W. Martin, fifth vice-president; E. H. Rixford, secretary; Chas. Kohler, treasurer; J. F. Black, Charles E. Shillaber, J. F. Crank, M. M. Estee, E. C. Priber and J. B. J. Portal, directors.

Some of the matters coming before the convention will be given at greater length at another time.

Los Angeles Flower Festival.

The Board of Managers of the Flower Festival Society have issued a circular that their Third Annual Festival will be held in Los Angeles, commencing the second week of April, and continuing two weeks.

The society gives these exhibitions for the purpose of raising funds to build a Boarding Home, where young women of limited means may have comfort and safety. The proceeds of two festivals and a loan exhibit, together with contributions from generous-hearted friends, have enabled them to commence the building, and they hope to complete it by receipts from the coming festival. To aid in accomplishing this, exhibits from the various sections in Los Angeles county are asked for, and each section is invited to provide one evening's entertainment. There will be no charge for floor space; all transportation fees will be paid, and two exhibitors connected with each booth will be entertained by the ladies of the society. While welcoming all exhibits from outside counties, it will be impossible for the society to assume any of the expense connected therewith, though hospitality will be tendered to two exhibitors from each booth.

Contributions of flowers, of all varieties, are solicited, and, if carefully labeled, their receipt will be acknowledged in the daily papers. Wells, Fargo & Co. have generously offered to bring contributions of flowers from any direction free of charge. They should be started upon the earliest regular express train of the day, and, if intended for any particular booth, should be very carefully labeled.

All communications in reference to the festival should be addressed to the secretary, Miss M. M. Fette, No. 18 Clay St., Los Angeles, Cal.

An Educational State.

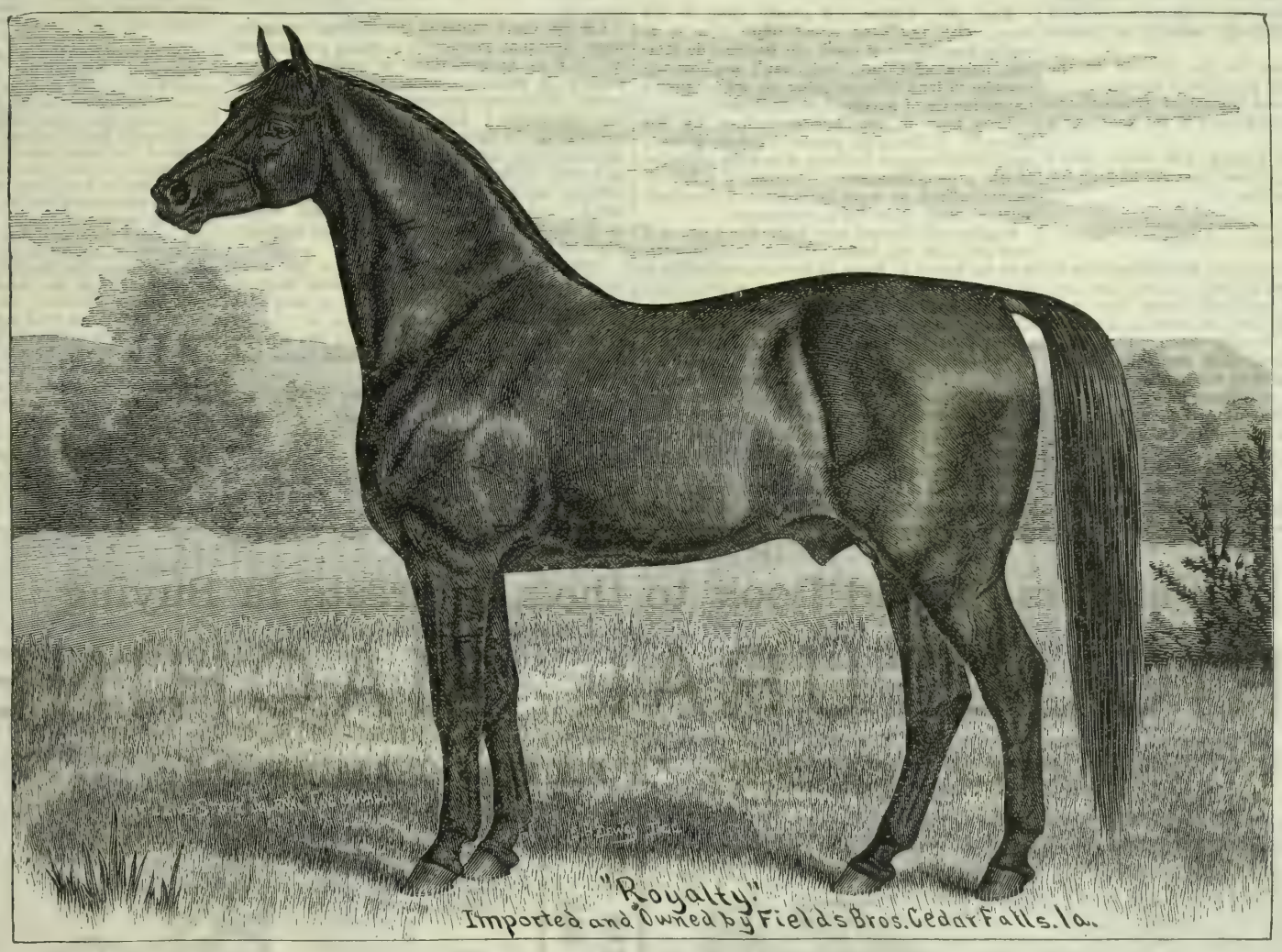
California can well claim to be an educational State. With our State University second to none in the breadth of the means of culture available, with the doors of the grand establishment of Senator Stanford, the Leland Stanford, Jr., University, soon to be thrown open, with our public school system, acknowledged to be of the highest order, and with a large group of most excellent private schools and seminaries—certainly California can claim to be an educational State. Such assurance is of the highest value to people seeking a home in a new State. Take for example the State University. In his report to the Regents last week President Holden said:

It may not be known to all that during the last year 122 different courses of study were *offered* to students at Berkeley alone, and of these 94 were actually followed. Many other courses were offered and given in San Francisco. Yale University offered 92 courses during the last year. This comparison shows that there is no question but that the University of California is doing its whole duty to the State in this particular direction.

Similar breadth and efficiency extends through the educational system of the State. New-comers may be assured that the training of their children is at least as well provided for as in the older States.

Cleveland Bay Horses.

California is achieving a most honorable fame as a horse-breeding State. We often allude to the reputation of our State being spread by our vast cereal crops, by our flowers, and fruits and wine, and we do well, for all these products are winning us renown abroad. But our live-stock should also be clearly recognized as a factor in the good impression which we are producing in distant parts. The deeds of our trotters at the East have drawn the attention of all horsemen to our State as a land of early maturing, and most excellent horses. The visitors to the State return to expatiate upon the general high class of the horses seen on the streets of San Francisco, the majesty of our heavy drafts, the style of our carriage teams, etc. They also go to the many county districts, where horse-breeding has received most attention, and return to praise the unexceptionable pure blood which has been brought to the State and to the quality of their offspring, both thoroughbred and grades. It is quite certain that California's resource in horse flesh is not the least of her treasures.



IMPORTED PURE CLEVELAND BAY STALLION ROYALTY.

This being the case, we are always pleased to draw the attention of our readers to fine animals of the several breeds, and especially to make known the claims of breeds which are as yet but little known here, because we like to aid in all movements to bring hither whatever is desirable of all the pure breeds. We need this to secure horses adapted to all needs. The different breeds have been developed by generations of wise men to suit certain purposes, and thus various types have been secured. We should have the best results of all their labors. Some of our needs do not require the weight and power of the majestic draft horses, nor the speed and nerve of the trotters and thoroughbreds; therefore our resources in pure blood should be diversified. As a breed which is not yet widely recognized in this State, although some good work has been done in this direction, we mention at this time the Cleveland Bay horses. We use as an illustration the portrait of the stallion Royalty (No. 128, American Cleveland Bay Stud-Book), foaled in 1883 and imported to this country by W. M. Fields & Bro., of Cedar Falls, Iowa, who have the reputation of having the largest and best stud of Cleveland Bays in the world, the animals having been selected with great care by the owners themselves. Royalty was sired by "Prince of Wales;" dam, "Gaiety." He is a handsome bay, very stylish, high-stepping, blood-like-looking coach horse, with much of the appearance of the thoroughbred. He is a model in form and quality—in fact, so much so that at the late (1886) Iowa State Fair, at which he easily captured the first prize, he was the admiration of thousands of people. He stands 16 hands and weighs 1270 pounds. Messrs. Fields say in their catalogue that such is the high appreciation in which this horse is held that standard-bred trotters have been brought from Wisconsin to breed to him.

The Cleveland Bay, as the name denotes, is bay in color, and was originally bred in the Cleveland district in England. They are larger in size than the thoroughbred horses that are noted for speed—and this greater size with large development of bone, muscle and sinew, combined with superior action and endurance, render them great favorites in America as well as in Europe. In size they are from 16 to 17 hands high, and weighing from 1200 to 1500 pounds, with short back, strong loin and long quarters, excellent feet and pleasant disposition; they are well calculated to draw the plow or family carriage.

Mr. Youatt, an English author of accepted ability, says of the Cleveland Bay: "They will support a continuance of fatigue, and have been known to travel the extraordinary distance of 60 to 70 miles within 24 hours, with heavy loads, three and even four times a week, besides being employed during the intermediate days. There is, indeed, no better animal for farm labor, and the mares are the best species of stock for the double purpose of work and breeding."

Messrs. Fields & Bro. report great success in using the Cleveland Bay stallion upon native mares. They say: "Our experience in crossing the native mares with the Cleveland Bay horses has been the most satisfactory; several of our two-year-old Cleveland Bay grades weighing from 1100 to 1200 pounds, and are wonderful counterparts of their sires. When judiciously mated with our native mares, the product invariably is a fine, stylish-looking animal, well adapted for either the carriage or general purposes."

We have an idea that the Cleveland Bay grades will be found of much value in this State, both in our general farming, and especially in our orchard and vineyard, work where strength and fleetness are desirable, so far as the two can be secured in combination.

WOULD BE heirs in America to mythical estates abroad, who have been gulled by the misrepresentations of professing agents and attorneys, should thank their fellow-victim, Mr. Dakin, for bringing one of the swindlers to grief. The latter, one Anderson, got $5000 out of Mr. Dakin; but he has more recently got five years penal servitude from the court in which he was prosecuted.

IMMIGRANTS continue to pour into the State, hundreds who come to stay arriving every week, and scattering through the counties both northern and southern.

TWENTY-ONE CARLOADS of oranges are reported to have been sent eastward last Saturday over the Central Pacific railway.

Mechanics' Institute.

Last Saturday night the Mechanics' Institute of this city held its annual meeting, at which the usual reports were read. The present membership is 2852, an increase of 321 since March 1, 1886. There are 42,000 volumes now on the shelves, 4600 having been added to the library during the year; $20,000 more had been paid on the mortgage. The property of the Institute, including lots and buildings on Post and on Larkin streets, is valued at $596,000, over and above the remaining mortgage debt of $90,000.

On the recommendation of the Board of Trustees, Professors Joseph Le Conte, John Le Conte, E. W. Hilgard, W. B. Rising and A. W. Jackson were elected honorary members of the Institute.

In discussing arrangements for the next fair, President Cornwall stated that propositions to connect with it a stock show and horse-races had not met with favor on the part of the Trustees; also that they think of dispensing with medals and flower shows, which have proved too costly, and offering liberal cash premiums for machinery and other exhibits in which competition is desired.

Complaints having been made of the way in which visitors, especially young girls, had been allowed and encouraged to sample the liquor exhibits last year, the President said that as soon as the practice came to their knowledge the Directors had stopped it, and so effectually that he was confident there would never be grounds for such complaints at any future fairs under their auspices.

A resolution was adopted that the pavilion be no more rented for masquerade balls, slogging matches, nor any kind of exhibition at which liquor-selling is allowed.

Columbus Waterhouse, George Spaulding, C. F. Bassett, James Spiers, Irwin C. Stump, S. J. Hendy and John Mallon were installed as Trustees for the coming year, and the following officers were elected: P. B. Cornwall, President; David Kerr, Vice-President; J. A. Bauer, Treasurer; W. P. Stout, Recording Secretary; Irwin C. Stump, Corresponding Secretary.

The Institute appears to be very sound and thriving, with the prospect of continued and greatening usefulness.

SURE that overland freight rates will be advanced by April 1st, transcontinental shippers are moving large supplies westward.

Industrial School at San Quentin.

It is stated that when the Senate Committee visited the State Prison at San Quentin Senator Jones, of Butte, asked how much it would cost to convert the door and sash building into cells for the occupancy of criminal boys. His idea was that it would be wise and humane to start a State industrial school inside the penitentiary, where criminals of this class could be taught some useful vocation separate and apart from the hardened veterans of crime. The suggestion is a good one, and will command the approval of every kindly nature. By all means do something of the kind, and if the aforesaid building cannot be spared or adapted to this purpose, then erect another. It would be hard to find any one who has made penology a study that has not denounced the folly and cruelty that herds in the same workshop young offenders along with the old and experienced villains who delight in the artifices and tricks of vice and crime. It is a vicious atmosphere for a boy to breathe in. The unconscious magnetism of such surroundings is debasing and perilous to every hope of reformation. It should always be assumed that there is something good left in a boy. That however bad he may seem, there is still lingering in his soul some flickering sense of shame and quivering of the moral nerve of feeling that under judicious treatment may be quickened into an honest desire to lead a better life.

We are all more or less the creatures of environment, and many of these bad boys are the victims of the evil forces at work in the community. They have been wrecked upon social reefs. They have been swept away by the swift torrent of city habits, customs, and ways that older and maturer minds find it hard to stem. We were born with no purer blood than they, and might have gone astray as they have had we been rocked in the same cradle and educated in the same domestic school. What sense is there, then in placing these unfortunate youths in the society of those who neither fear God nor honor man, who sneer at virtue and honesty as phantoms of the conscience, and look forward to the termination of their sentence as the time to wage a more cunningly contrived and relentless war upon society? One of the chief objects of the State Prison is the reformation of the criminal, but our present system, at least so far as the boys are concerned, is a mere recruiting station for the army of crime. How can they learn the beauty of virtue in daily contact with vice? There can be no hope of amendment under such circumstances. It is too big a marvel to expect. The chaplain may pray, preach, and distribute good books, but one hour in the prison workshop is enough to ravel out and dissipate every good intention. By all means give these youthful criminals a better chance to redeem the future.

RAILROAD EXTENSION TO UKIAH.—The surveys, plans and specifications for the extension of the Donahue road from Cloverdale to Ukiah are now completed, and work upon the same will be commenced as soon as the right of way can be properly secured. The work will involve a length of 4800 feet of tunneling, but the grade thereby will be unusually favorable,

PUBLIC AFFAIRS.

Is Mr. Henry George the Farmer's Friend?

EDITORS PRESS:—The prominence accorded to Mr. George in New York politics renders imperative some familiarity with his views. Befuddlement of uneducated brains and bewilderment of untrained intellects are arts in which professional politicians are adepts. "Blind staggers" is a far too common complaint among bipeds. Especially is this the case among the darksome mazes of the so-called science of political economy. What should be crystallized common sense merely consists at present of conflicting crudities of differing doctors. Stripped of unnecessary verbiage, the proposals of Mr. George are as follows:

1st. To abolish all private ownership in land. This is to be done either by direct confiscation to the State, or by the imposition of a State land tax that shall be about equivalent to the rental, thus making real estate valueless to the nominal owner.

2d. Confiscation (actual or virtual) being consummated, the State to act in future as landlord (either directly or through landlord as unpaid agent).

3d. Land revenues to be devoted to the alleviation of present tax-payers' burdens.

All this with a great flourish of trumpets to herald the consequent advent of the poor man's millennium!

Now, Mr. Editor, I think you know that I too am one of the fellows that are looking for the laborers' millennium.

> "Not that I'm one of them that much expec'
> Millennium by express to-morrer."

Still, I keep an eye open for millenniums in general; so I thought I'd look up this new one of Mr. George's. I willingly admit that millenniums are breachy kind of cattle to hunt for; and all eyes are not equally keen. But, hitherto, I had not realized that the tax-collector was more competent than the landlord to usher in the reign of universal peace and goodwill. I had not realized that the tax-collector *plus* sheriff was one whit less rapacious and exacting than the landlord *plus* sheriff.

The renter will find Mother Earth equally chary of her dollars whether their destination be the State treasury or the landlord's pocket. So, as far as I can see, his position is unchanged.

But (and here I speak feelingly) the owner and occupier has his land "cut from under him." Take my own case. I bought my present farm nearly 20 years ago. It was said to be worn out. The Carmel river was sluicing it away. It was predicted that I should "freeze out" on such a 100-acre tract. Feeling sure that the place was *my own*, I went happily to work, dammed, fertilized, planted and husbanded my land until its present title, "Carmel Garden," is not a misnomer. This was done because I expected and intended that I should be permanent *owner* of this tract, and all benefits of my work should accrue to me *as owner*.

Dispossess *owners*, make all *Government tenants*, and who will improve lands in the future? Who will plant trees for another to eat the fruit thereof; who will build houses for others to inhabit; who will reclaim waste places for others to occupy, when the avails of all real estate are appropriated by Government? I admit that George and Gabriel both begin with a "G," but George's blast don't sound more like millennium than my bull calf's bellow.

Then he tells how this transfer of land to the State will elevate the whole community; how

> "None shall there be jealous,
> And none shall there contend,
> Fraud! clamor! guile! what say I?
> All ill! all ill shall end!"

Now, Mr. Editor, I'd gladly sling in my farm, with the very latest improvement, to realize that vision of good old Bernard de Morlaix, monk of Cluny; but I can't see how any transfer of land titles is going to make such a happy family of tenants and landlords.

Then how is the *laborer* helped by the scheme? Shifting tax-payers' burdens is very small alleviation to the man who pays no taxes, of which he is conscious. Further, if a laborer cannot afford to rent land from a landlord, neither can he from the Government!

Supply and demand now settle the amount of rent any land will bring. What else will settle it in the future? State or private ownership is no factor in the question. I never read that wine and tobacco were cheaper when State monopolies controlled their sale. It is competition among farmers that raises rents of agricultural lands; and the laborer can compete against the farmer, if he has the means, as freely *now* as under a State monopoly. More so! Some private landlords are possessors of sympathy and kindly feeling! The tax collector is not permitted to deal in either commodity! He is not allowed any soul!

Further, Mr. George's whole book is based on a false assumption, that the laborer has not shared in the benefits conferred by progress. In making this statement Mr. George has forgotten to consult the facts. It is safe to state broadly that a laborer's wages have increased 100 per cent in the last 80 years, and that the purchasing power of the coin is 100 per cent greater than in A. D. 1800. He enjoys facilities for travel and communication of which a prince then never dreamt. He may avail himself of educational privileges (for example, books and newspapers, the poor man's university) to which his predecessors had no door of access. And lastly, as abundant exemplars have proved, with the use of determination, effort, perseverance, and prudence, the laborer has fuller opportunities to raise himself to the highest pinnacles of wealth and eminence than his ancestors ever possessed.

If lightening tax-payers' burdens will indeed do all that Mr. George anticipates, there is a much less dangerous and less complicated way. The great burden of taxation is imposed either to provide against possibilities of future war (lashing ourselves to frenzy with our own tail, as in our present scare at the defenseless condition of our coast) or to pay the bill for past wars (debt incurred and pensions granted). By strictly adhering to the Monroe doctrine, and refusing to import ridiculous and antiquated European barbaric methods of patching up international differences by wholesale slaughter, we should avoid the incidence of such taxation.

Let us come round to the obvious commonsense view that war settles nothing permanently. Let us do something to prove ourselves worthy of those ancestors to whose genius a statue of liberty enlightening the world has been dedicated! Let us render illustrious the present age by taking steps toward the establishment of an international tribunal, to settle, on a basis of justice, these unseemly bickerings between nations, which constantly make "bad blood," and culminate in futile wars which leave nations oppressed by debt and impoverished by taxation.

This, Mr. Editor, seems to me a far more feasible and more worthy aim than that of Henry George. To deprive us all of land that governments may have ample funds to engage in wars, which it is the business of the aristocracy and military to foment, is not quite this farmer's ideal millennium.

EDWARD BERWICK.

Carmel Valley, Monterey.

Free.

If any lady will send us eleven cents, to pay the postage, we will send her a bar of our King Soap, which will do a washing without any rubbing. Capital Soap Company, Sacramento.

Coal Oil for Scales.

EDITORS PRESS:—Some time ago I read Mr. Thomas' communication in regard to applying coal oil to fruit trees to kill scale bug. Since then I have applied coal oil to several pear trees. It has killed the scale and there is apparently no injury to the trees.

In answer to Mr. Thomas' question I will state that, two years ago my neighbor, L. L. Walton, washed two Silver prune trees and one plum tree with coal oil. The trees were covered with San Jose scale. The application killed the scale bug and the following summer the trees were loaded with and matured as fine a crop of fruit as you would wish to see.

The fight against the scale here will be a hard one. Within half a mile of my house there are many poplar trees covered with San Jose scale. The RURAL PRESS is always a welcome weekly visitor at my house. C. O. BUTLER.

Hanford.

[We would like to have a specimen of the scales on the poplar for examination.—EDS. PRESS.]

Don't Read This

If you have a sufficiency of this world's goods, but if you have not, write to Hallett & Co., Portland, Maine, and receive, free, full particulars about work that you can do, and live at home, wherever you are located, at a profit of from $5 to $25 per day, and upward. All succeed; both sexes; all ages. All is new. Capital not required; Hallett & Co. will start you. Don't delay; investigate at once, and grand success will attend you.

PERCHERON HORSES IN CHICAGO.—An exemplification of the fact that the quick and heavy draft teaming of Chicago is done nearly exclusively by grade Percheron horses was shown during the late Illinois State Fair. Auxiliary to the great Percheron exhibit at the fair, a grand street and fairground parade of Percheron business teams was organized. The procession, nearly two miles in extent, contained the two, four and six horse turnouts of over 150 of the most extensive wholesale merchant and manufacturing houses of Chicago. The quality of these high-grade Percheron teams, as regards individual appearance, compared favorably with many of the pure bloods on exhibition at the fair, which shows the adaptability of the Percheron cross on native stock. Grade Percheron horses are always in demand at high prices in all markets, and farmers can make no mistake in breeding them. Mr. M. W. Dunham, of Wayne, Illinois, the extensive importer and breeder of pure Percheron horses for breeding purposes, has on hand about 500 head registered with extended pedigrees in the Percheron stud-books of France and America.

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Farmers Should Look to their Interests in Buying

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TO GET THE BEST!



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Are the only Rakes ever offered to the Farmers of America that have proved a Complete Success in all kinds of Raking.

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ARE THE GENUINE, and are, as they always have been,

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One that will Outwear two of any other make of Machine.
One that is very Simply Constructed and the Lightest Draft.
One that will do better work than any other Mower made.

Farmers should remember that the experiment of buying inferior machines is expensive, when they can buy the ADRIANCE "BUCKEYE," and be sure of getting the best machine in the market. See that ADRIANCE, PLATT & Co. is cast in the machine.

Send for our New Catalogue for 1887, giving full Descriptions and Revised Prices of all kinds of Harvesting Implements.

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Guaranteed to do More and Better Work, with Less Draft upon the Horses, than any other Machine made. We Guarantee Construction, Material and Operation in the Field.

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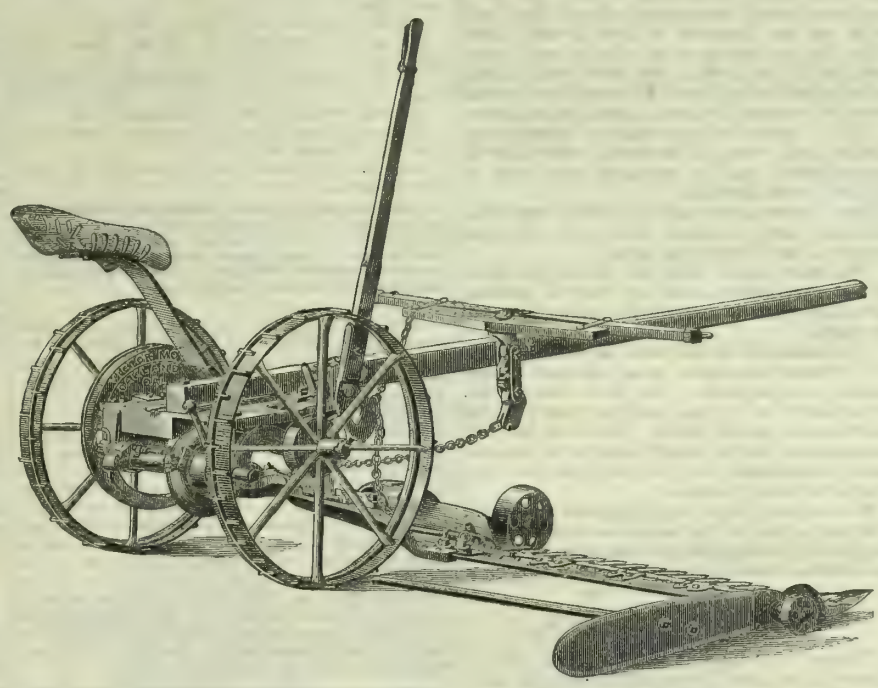
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FOUR SIZES:

4 Feet Cut,

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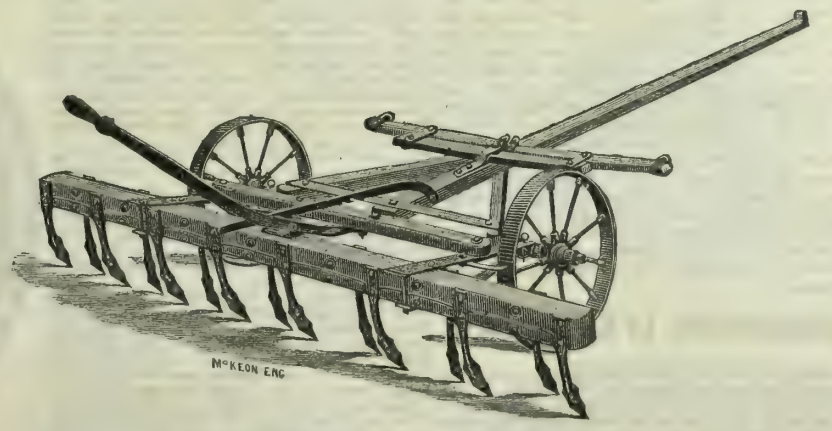
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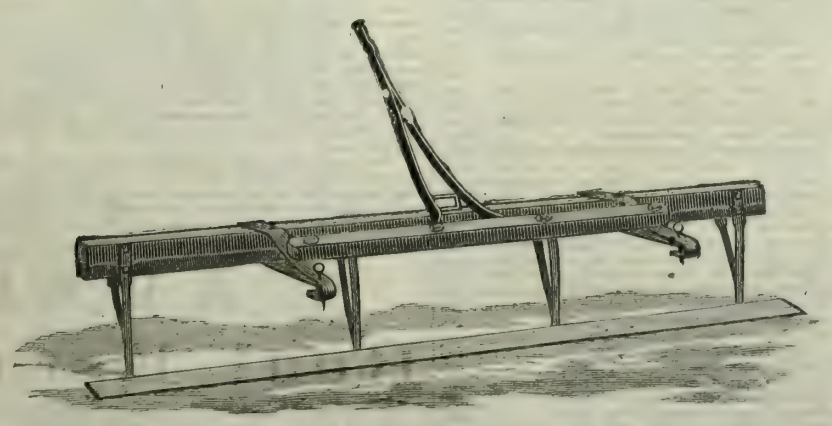
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Cost of Cultivating Orchards and Vineyards Reduced to the Minimum, or about the same as open field Cultivation.

NO PLOWING REQUIRED.



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WEED CUTTER DETACHED FROM WHEELS.

Improved for the Season of 1887 by the addition of a Gauge to regulate depth of cut of both

Cultivator and Weed Cutter.

Send for Circular containing Testimonials from prominent Orchard and Vineyard Men who are using this Implement.

JUDSON MANUFACTURING CO.,

8 Pine Street, · · · San Francisco.

THE VINEYARD.

Santa Clara Vineyard Interests.

Our reports of the San Jose Citrus Fair made prominent mention of some of the important vineyard and wine industries of the Santa Clara valley. It is generally understood that the progress of viticulture in the valley and the adjacent mountain grape districts, which have been mentioned from time to time in our columns, has been very rapid, and the creation of wealth thereby has been very satisfactory to the old vineyard planters and very encouraging to those just embarking in such enterprises. As an instance of this course of affairs may be cited the following telegram which was sent from San Jose, Feb. 28th, to the Associated Press:

On Saturday evening the agent of an English syndicate met J. B. J. Portal at the office of Hon. Thomas H. Laine to negotiate for the purchase of Portal's famous Burgundy vineyard, about six miles west of San Jose. The price named was $134,000 for the real estate, improvements, name and good-will, but not including the stock of wine and brandy on hand. The preliminaries were all arranged, but final action was delayed to favor the organization of local capitalists to purchase the place. This is evidently the beginning of a great boom in Santa Clara county vineyards.

Mr. Portal has conducted his enterprise with much energy and skill, and his friends will be pleased with the figure which his property seems to command.

The Santa Clara vineyardists early saw that to give their industry the standing it merited in the public mind and in trade circles, they must organize and act together toward desired ends. Thus arose the Santa Clara Viticultural Society, one of the best organizations of its kind in the State. At a meeting held on Saturday of last week, with President D. C. Feeley in the chair, important action was had looking to the advancement of the industry, by securing better facilities, etc. According to the report in the *Herald:*

The matter of forming a company for the purpose of erecting a wine storehouse was discussed at length. The first storehouse to be built, said Mr. Combe, should have a capacity of 500,000 gallons. The company should have a capital stock of $100,000, divided into 10,000 shares of $10 each. About 25 per cent of the capital stock would cover the cost of purchasing land and erecting a first-class building with all appurtenances fit for a first-class cellar. About 40 per cent would be required for cooperage as required from time to time. It is proposed to put the business of this company under the direction of a board of seven directors, who shall conduct all the affairs of the company, procure land, cause buildings to be erected and purchase cooperage as fast as necessary. They will select a superintendent who shall be competent to receive wine, take proper care of it, ship it when so ordered, and grade it according to value, in order that the valuation as affixed may be of benefit in the transaction of business between the owners of the wine and those who should be disposed to make advances on the same.

President Feeley suggested that by the means proposed the winemakers could protect themselves from the "San Francisco ring."

Mr. Combe said when money could be borrowed on wine in storage the makers could keep their products out of the market, and the result would be higher prices.

Capt. Merithew spoke in the same spirit, and Capt. Frank Dunn moved to proceed and form an organization and elect a temporary Board of Directors. The motion was carried, and the following directors were elected: William Ginty, Frank Dunn, W. B. Rankin, J. Q. A. Ballou, William Warren, J. P. Bubb and Capt. Merithew.

J. B. J. Portal declined to serve, upon being requested, for the reason that he had important business on hand.

The directors withdrew and arranged for the immediate drawing up of a prospectus, after which they will secure subscriptions for stock and report progress at the next meeting of the society.

We are not familiar enough with the intricacies of the wine business to discuss the Santa Clara movement *ex cathedra*, but it is evident that the prosperity of the whole State depends upon the building up the various local industries and securing for them their proper place in esteem and in trade. We do not believe in centralization in such matters—that is, centralization which destroys individual excellence and individual rights. Let the producers of each region act together, not to pull down others, but to promote their own success.

Can't Afford Not to Take It.

A subscriber at Downey, Los Angeles county, inclosing his postoffice money-order for another year, remarks:

The PRESS continues to be full of valuable information for farmers and housekeepers. Don't see how so many farmers can afford to be without it. Such an article as "The Senator's Daughter" is a good departure occasionally.

EXPERIMENTS made indicate that the light of midday during fine weather penetrates the water of the sea 1300 feet.

Death of Jonas Winchester.

Jonas Winchester, better known as "General" Winchester, died at his home at Columbia, Tuolumne county, February 23d, aged 76 years. In early life he was a printer in New York, and a personal friend and partner of Horace Greeley. Coming to California in 1849, he soon became part owner and chief editor of the *Pacific News* in San Francisco.

He was appointed State Printer in April, 1850; held the office about a year and resigned in March, 1851. His publishing house having been ruined by fire meanwhile, he went to Grass Valley, engaged in quartz mining and wrote a series of valuable articles on that subject for the New York *Tribune*. It does not appear that he made a fortune at it, however, for he presently "returned East and for awhile was lost sight of by his friends and acquaintances in California." But he finally returned hither, like most of those who spend any considerable time in our beloved State, and took up the business of fruit-growing near Columbia, whence he now and then sent contributions to the RURAL, his last being a Tuolumne county note, dated February 14th, which went to press the morning after his departure.

He is spoken of as a man of intelligence, ability and courage; energetic, warm-hearted, enthusiastic, and a philanthropist both in theory and in practice.

Since writing the above, a letter respecting him has come to hand from our venerable friend, John Taylor, who says:

The short article from his pen in your issue of February 26th was his last effort for publication, and when it arrived the writer was still in death.

We conducted the services on Sunday in the Odd Fellows' graveyard to a large and sympathizing congregation. We have known Mr. Winchester for 25 years, and can testify to his worth as a man and friend. He lived and died a consistent, and in many respects an enthusiastic, spiritualist, and the services were conducted on that principle.

He leaves a widow, four daughters and a son; but they rejoice in the assurance that the dear patriarch still watches over the loved of home, and will see that no evil attends their footsteps.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Hay Presses.

Our readers cannot fail to see the conspicuous advertisement of the Price Hay Press Co., on the last page of this number. The records of their two leading presses, the Hurricane and Junior Monarch, for speed, are extraordinary. It is said that the manual labor of baling hay with Mr. Price's latest press, the Hurricane, is reduced to sliding the hay three or four feet on a platform, dropping it in a hole, and putting on the bands; the press not only pressing the hay but bringing it across the stack and hoisting the bales into a pile. It would seem as if further reduction in the labor performed by men was almost impossible, but who can say? Perhaps next year a sort of mower and press combined will be made which will cut the standing hay, dry it and drop the finished bales in the rear as it travels along, the manual labor being confined to one man who sits in a comfortable seat under a big sun umbrella and guides his team.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price $1)..... $0.25
2.—World's Cyclopedia, 794 pages, 1250 illustrations; (exceedingly valuable)..... .50
3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt..... .50
4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated..... .25
6.—To NEW Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new"..... Free
7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
9.—Pacific Coast and Eastern Dailies, Books and Periodicals, *except special publications*, we can usually give 10 to 15 per cent off advertised retail rates.
10.—March of Empire, by Mallie Stafford..... .25
11.—Life Among the Apaches, 322 pages, stiff cloth .25
12.—$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application .25
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15.—European Vines Described, 63 pages..... .05
19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable..... .50
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25.—Ropp's Easy Calculator, cloth, 80 pp..... .25
26.—How to Tell the Age of a Horse..... .05
27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, $3)..... 1.00
Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present).. .25

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Inform your neighbors about our offers and paper. Sample copies of this paper mailed free to persons thought likely to subscribe.

Send for free circular describing most of these premiums, and any further information desired.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING FEBRUARY 22, 1887.

358,186.—TUBULAR LANTERN—Emil Boesch, S. F.

358,017.—TREE PROP—H. B. Cole, Riverside, Cal.

358,105.—BAYONET—H. H. Conklin, Eureka, Nev.

358,190.—CAR COUPLING—W. S. Doan, Sacramento.

358,112.—WATER FILTER—Fjord & Broters, S. F.

358,035.—CARTRIDGE LOADER—H. T. Hazard, Los Angeles, Cal.

358,119.—SLATE WASHER—P. D. Horton, Oakland, Cal.

358,271.—BOILER—E. Hosford, Oakland, Cal.

358,294.—PULVERIZER—F. Payne, East Portland, Ogn.

358,071.—FIREARM—J. W. Redfeld, Glendale, Ogn.

358,222.—STOP VALVE—J. Richards, S. F.

358,170.—PROPELLING APPARATUS FOR VESSELS—C. A. Smith, S. F.

358,089.—TRANSOM VENTILATOR—J. P. Tierney, Oakland, Cal.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

HOW TO GET A PERFECT SEED BED.—A sufficient bed for the seed is an absolute necessity for the success of any crop. The soil should be fine and mellow, free from lumps and of sufficient depth. The very best of plowing is a preliminary process for this effect, but the following harrowing is the most important part of the work. But one harrow is able to do this work in the most suitable manner, and that is the "Acme" Pulverizing Harrow, Clod-Crusher and Leveler. Its name indicates why it is thus successful in producing just what is required, but there is one point which should be noted, and that is that the depth of the pulverized soil can be regulated to an inch or less, as this harrow can be loaded by the weight of the driver to cut five or six inches in depth, or when unloaded can be made to work, by proper adjustment of the setting-bar, to a depth of from two inches to four. This deeper seed bed gives ample room for the spread of the roots. See advertisement on page 226.

The Cause of Consumption.

Scrofula, manifesting itself in blotches, pimples, eruptions, salt-rheum, and other blemishes of the skin, is but too apt by and by to infect the delicate tissues of the lungs also, and result in ulceration, thus ending in consumption. Dr. Pierce's "Golden Medical Discovery" will meet and vanquish the enemy in its stronghold of the blood and cast it out of the system. All druggists.

A Flat Contradiction.

Some one has told you that your catarrh is incurable. It is not so. Dr. Sage's Catarrh Remedy will cure it. It is pleasant to use and it always does its work thoroughly. We have yet to hear of a case in which it did not accomplish a cure when faithfully used. Catarrh is a disease which it is dangerous to neglect. A certain remedy is at your command. Avail yourself of it before the complaint assumes a more serious form. All druggists.

"Little, But Oh My."

Dr. Pierce's "Pleasant Purgative Pellets" are scarcely larger than mustard seeds, but they have no equal as a cathartic. In all disorders of the liver, stomach and bowels they act like a charm. Purely vegetable, sugar-coated, and inclosed in glass vials. Pleasant, safe and sure. By druggists.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Cheap Money for Farmers.

Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

OONSHIU ORANGE

From a Photograph.

温州蜜柑木

NATURAL SIZE.



At the San Jose Fair much interest was manifested in the table containing some JAPANESE SEEDLESS ORANGES, which, although picked from the trees in Japan 60 to 70 days before, were still juicy and delicious. They are called the "Oonshiu," and have been referred to in our columns. The accompanying wood-cut shows about the size and general looks of a specimen of that fruit cut diagonally. It is medium size, oblate, 2½ to 3 inches in diameter; the rind thin, smooth and deep orange color, the pulp sweet, seedless and of delicious flavor and taste. The trees, of which some also were on exhibition, are claimed to be very hardy and to stand frost as well as drouth. In fact it is said that in Japan the ground is frozen hard for several months in winter. The trees are claimed to grow as high as 12 to 15 feet, and bear first at 2 years after grafting, and the great superiority of our soil leads us to believe that the trees, as well as the fruit, may exceed their present average size of growth in our country.

Mr. H. E. Amoore, the President of the Japanese Tree Importing Company (the exhibitors), who has been in China and Japan over 20 years, brought over 30,000 of the trees, and the Company is making large sales of from one to four thousand to some parties, and will ship the small unsold stock to their new nurseries, near Vacaville, Solano county, in a few days. The Company is an association formed to supply all kinds of Japanese Fruit and Flower Trees to this market, and comprises Japanese in Tokio, Osaka, etc., who have control of large nurseries in Japan, and their interests are protected by the four Japanese who came over with Mr. Amoore. The latter gentleman returns there in three or four weeks, spending his time constantly traveling in the country hunting up new trees, etc., and would be pleased to meet or correspond with any one interested in Japan or its products. At the office of the Company, 120 Sutter Street, San Francisco, the Secretary, Mr. S. L. Goldman, conducts the business, and is now taking large orders for future delivery, not alone for OONSHIU Orange Trees, but also for Persimmons, Camellias, Chrysanthemums, Tea Plants, Maples, etc. There are also to be found on exhibition two colored plates, engraved especially for the Imperial Japanese Secretary of Agriculture, representing 29 varieties of Japanese Citrus Fruit, of which 22 are oranges, and the same Company is prepared to take orders for all of them at prices of from $5 to $100 per 100, according to variety and size. But of all, the Oonshiu is the most valuable, and has hitherto sold the best.

We have also to make favorable mention of some trees called "Cumquot" in Japan and better known as "Citrus Japonica" in this country, which were exhibited by the company. The trees, although only 10 to 15 inches high, were laden with fruit of the size of a small plum, and are said to grow as high as 10 feet. The fruit is known to make a very fine preserve and is also useful for crystallizing. The "Ooji" Teaplants proved to be quite a curiosity, and sold at the fair so fast that Mr. Amoore was compelled to send for more to San Francisco.

A. H. WASHBURN,

Real Estate Agent.

LAND BOUGHT and SOLD ON COMMISSION.

Houses Rented and Rents Collected.

Room 34, KNOX BLOCK (Up Stairs), SAN JOSE, CAL.

Reasons why Sherwood's Steel Harness is the Best and should and will be Universally Used:

1.—It is a common sense Harness. 2.—It is made of material that will last a lifetime. 3.—In plowing, dragging, logging and scraping there are no whiffletrees. 4.—In all farm work you can change from plow to wagon quick. 5.—In plowing in the orchard, you can't bark fruit trees. 6.—In plowing and cultivating hops it has no equal. 7.—In plowing along the fences you can get two furrows closer. 8.—Horses cannot step over the traces, or calk themselves. 9.—A small boy will handle plow readily. 10.—There is no weight on plow beam. 11.—Team works one-third easier. 12.—There is no chafing, crowding or fretting of team. 13.—For man and team it has no equal. Do not hesitate, but order at once from your nearest agent. Address

TRUMAN, ISHAM & HOOKER,
San Francisco, Cal.

JAPANESE TREE IMPORTING CO.

120 Sutter St., San Francisco.

Importers of the celebrated

SEEDLESS OONSHIU ORANGE TREES.

Send for Circular.

PUMPS FOR IRRIGATION AND RECLAMATION

Steam Engines, Horse Powers & Wind Mills.



Complete Pumping outfits—all sizes—for every purpose. The **latest, best** and **cheapest.** If you need any thing in this line, write to

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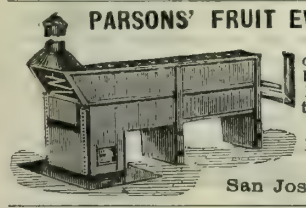
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Open day and evening for both sexes. Expenses less than one-half the usual rates. Excellent board in private families from $8 to $10 per month. Address, for College Journal and Circulars, J. C. BAINBRIDGE, Principal, Stockton, Cal. *College,*

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You can buy an 800-acre Stock Ranch in Santa Clara county for $12 per acre; rolling hills, well watered by never-failing springs; near railroad station; good buildings, small orchard and vineyard. This tract is also fine vine land. Bargains in Orchards, Homes and city property. HAMILTON & CALDWELL, 28 N. First Street, San Jose, Cal.

Poultry and Stock Book

Niles's new manual and reference book on subjects connected with successful Poultry and Stock Raising on the Pacific Coast. A New Edition, over 100 pages, profusely illustrated with handsome, life-like illustrations of the different varieties of Poultry and Live-Stock. Price, postpaid, 50 cts. Address PACIFIC RURAL PRESS Office, San Francisco, Cal

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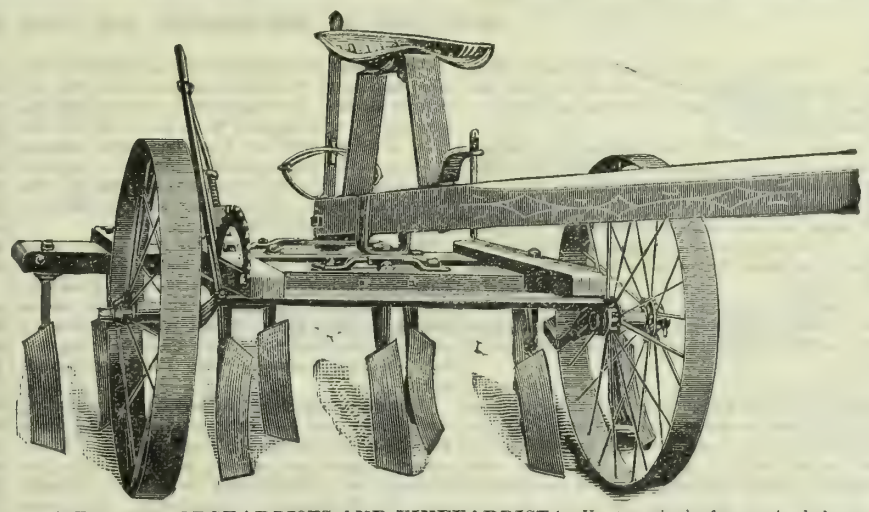
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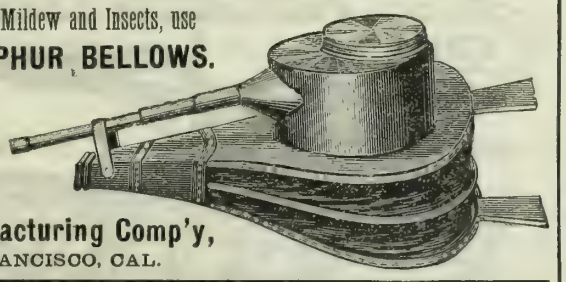
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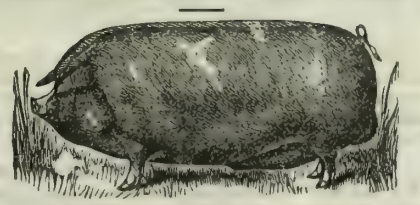
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The additional buildings and equipments provided during the past year supply the Faculty with better facilities for the proper performance of their work than ever before.

The new brick building for the Preparatory and Business departments, erected and furnished at an expense of over $45,000, provides every requisite for students belonging to these grades.

The Faculty offer a thorough business course, extending over three years, and including rigid training in grammar, English composition, geography, political and physical; United States history, natural philosophy, anatomy, astronomy, political economy and algebra, as well as arithmetic, penmanship, bookkeeping, business practice and commercial law. Students in this department can also be accommodated with telegraphy and phonography.

The Preparatory department, proper, includes all the branches usually taught in schools of this grade, and is designed to fit students for entrance into college classes of the strictest requirements. Indeed, the Faculty propose that in every respect this department shall rank with the most thorough preparatory schools of New England.

Students belonging to the Preparatory and Business departments are expected to room in the buildings appropriated to this use, the young ladies in South and the young gentlemen in East hall. The sexes meet in the dining-rooms and classes, and may associate at other times under suitable restraints and supervision.

The regulations are sufficiently liberal to permit the ease and happiness of the inmates, and sufficiently strict to provide for their safety. After an experience of many years, it is the unanimous judgment of the Faculty that this method of co-education is stimulating and healthful to both sexes.

The other improvements to be noted are recent additions to the museum; a new observatory, equipped with a fine telescope, transit instrument and chronometer, and better facilities for practical chemistry in the laboratory.

The Conservatory of Music, under Prof. King, has made its way to the very front in this department of instruction. It is no longer necessary for students who desire the most thorough education in music to seek it beyond the limits of their own State—the best facilities are at their own doors.



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A large and promising class of young men preparing for the ministry are pursuing courses of reading and receiving special theological instruction, under Pres. Stratton, in addition to their regular college studies. This class was organized during the past year, and is regarded as the first step toward a Theological department. Other steps in the same direction must soon follow.

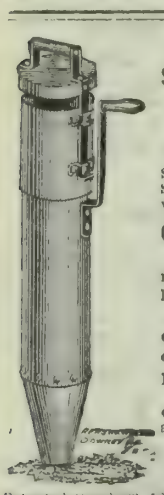
All of these facilities are but adjuncts to the solid and more exacting branches of the regular college classes. Undergraduate courses of study, leading to the degrees of A. B., B. L., B. Ph. and B. S., as well as Post Graduate courses leading to the corresponding master's degrees; and, finally, still higher courses leading to the degree of Ph. D., are open to all who seek to win these literary distinctions.

To these opportunities for the pursuit of knowledge is to be added the influence of a large and orderly and earnest body of students. About 400 have registered in the different classes during the past year. Hence results a literary atmosphere which powerfully tends to bring new recruits into harmony with their surroundings.

A gracious spiritual influence has prevailed during the past winter, and considerable numbers have entered upon a Christian life. These converts have been advised to unite with the churches of their parents or nearest friends, and the Episcopal, Presbyterian, Congregational and Baptist churches adjacent, as well as the Methodist churches of San Jose and Santa Clara, have shared the fruits of this work of the Spirit. No less than six religious meetings, and mostly conducted by themselves, are held by the students during each week. This religious atmosphere keeps alive the moral nature, quickens conscience, leads to sober views of life, and exerts a controlling influence in favor of good order. As a result, cases of discipline are rare; the spirit of the body of students guides and restrains the individual members.

With all of these facilities at command; with commodious buildings; a strong, united and enthusiastic Faculty; a large body of students full of purpose and promise; with a successful history of 35 years behind them, and the manifest blessing of God upon their work, the friends of the University feel that they can safely appeal to the confidence and support of the patrons of higher education in California. Up to this time the response has been generous and growing, and the outlook promises a still larger patronage for the future.

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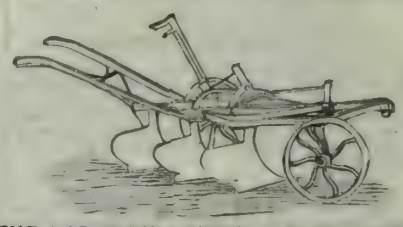
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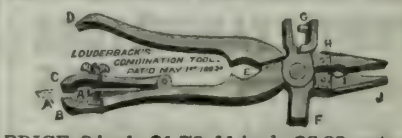


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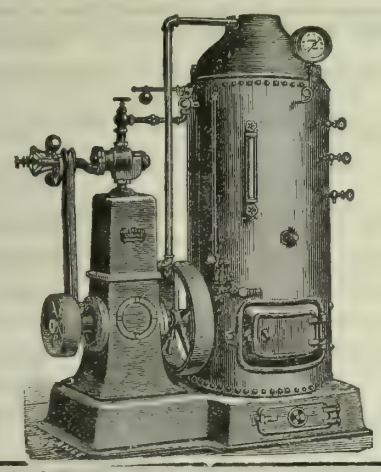
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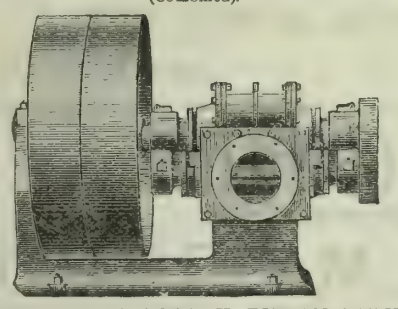
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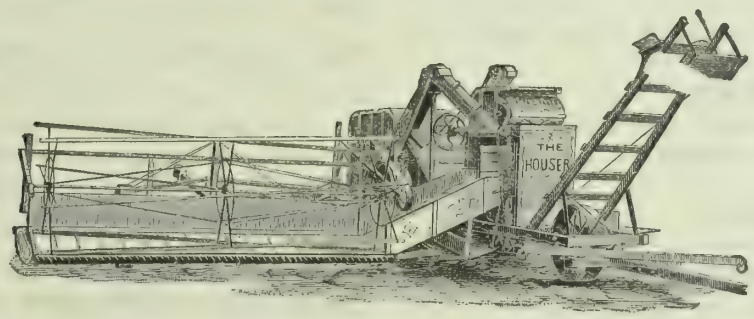
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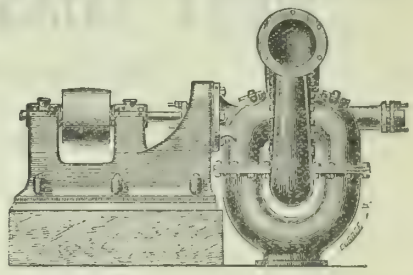
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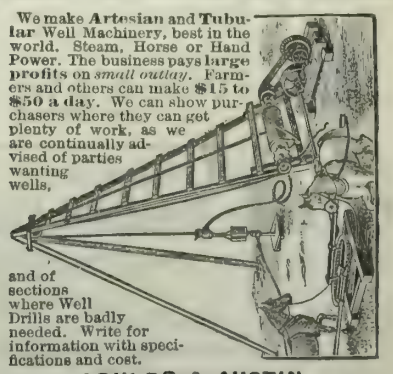
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THE SANTA YSABEL RANCH,

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THE EUREKA RANCH,

Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

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About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch**, consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

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Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

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Providing that no bid will be entertained at less than 60 per cent of schedule prices.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

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Maps of all the ranch subdivisions, of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands with a new descriptive catalogue are in press and will be sent free on application after the 25th inst. (February, 1887.)

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THE GARDEN SPOT OF CALIFORNIA.

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236 ACRES of good land, seven miles from San Jose—in the hills—commanding a most beautiful view of the valley; over 200 acres are now cultivated; the hills are rented for $4.50 per acre, cash rent, for raising early potatoes and peas; house, barn, etc.; this is a good place and is a bargain. $10,000.

39 ACRES near Santa Clara; good land; 18 acres in fruit; one-half in bearing; house, ten rooms; barn, windmill, tank, etc. $3000.

5 ACRES in the Willows, in full bearing; one-third apricots, one-third peaches, one-third prunes; house, 4 rooms, hard-finished; small barn; on Hicks ave.; last year apricot crop sold for $515—only 2 tons fruit; 6 tons expected this year. $4500.

60 ACRES north of S. J. Water Co. reservoir, above Saratoga, about 14 miles from San Jose; good road to place; 10 acres in vineyard, in full bearing; 500 fruit-trees; tanks, barrels, etc., 5000 gallons; house, 4 rooms; barn, 2 wagons, horse and cart, spring wagon; all tools. $4300.

10 ACRES near Berryessa; three miles from center of San Jose; six acres in fruit, best variety, in bearing; house, four rooms. $5000.

10 ACRES, beautifully located, on Alum Rock avenue (a beautiful suburban avenue) three miles from San Jose; a beautiful view is had of the city and valley, being about 100 feet above the city; land adjoining is selling at $25 per acre advance. **Price, $225 per Acre.**

SUBURBAN HOUSE, adjoining the city limits, on 12th street (1½ miles from the post-office); 3½ acres; good soil; house, six hard-finished rooms; barn, etc.; flowing well. $3000.

CHOICE VINEYARD, 80 acres, all improved; location is eight miles from San Jose; a beautiful spot; 60 acres in vines in bearing; 10 acres in French prunes, five acres apricots and five acres assorted; house and other buildings. $20,000.

130 ACRES good land, near Mt. View (town); part in orchard, about 10 acres; small vineyard; good house and other buildings. $17,000.

30 ACRES, 2½ miles west of Mt. View; valley land; 300 acres olive trees, three years old; balance all in vines one and two years old; this is the making of a fine place; cheap. $6750.

60 ACRES; choice land west of Santa Clara; 40 acres in two-year-old vines; best varieties; trees—700 prune, 700 silver prunes, 750 apricot, also two years old. $12,500.

15 ACRES; orchard in the Willows, in bearing; good variety; location is No. 1; will compare with any five-year-old orchard; $1500 last year's crop sold for; will be much larger this year. $10,500.

25 ACRES; a fine apricot orchard, five years old; two miles from San Jose. $12,500.

12 50-VARA LOTS, bounded by three streets; part in orchard. $6000.

ON SANTA CLARA STREET, 137½x137½ feet; N. W. Cor. Eleventh street. $4800.

ON FIRST STREET, within two blocks from the court house; N. W. corner lot; 90x100 feet. $6250.

ON DELMAS AVENUE, lots 50x137½ feet. $350.

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BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R. towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now being constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

THE WATER RIGHTS

Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied for colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. Nearly one-half already sold.

Price, $22 to $40 per acre, on very easy terms to actual settlers.

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It can be used in Bath, Toilet or Laundry, and dispenses with Fuel, as no Warm Water or Boiling is Necessary. Beware of Cheap Imitations.

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The Legislature.

As we go to press Wednesday evening, it seems almost certain this body will adjourn Thursday or Friday at the farthest. The Senate has its grip-sack in hand, and waits the movement of the Assembly. As the swallows homeward fly, there have been indications for several days of the last gasp in the wild raid upon papers, pens, penholders, pencils, envelopes, inkstands and other property of the dear people. The grab characteristic of this body is strong in death. A resolution instructing the Secretary of State to deliver free of cost to each Assemblyman one copy of the Constitutional Convention of 1879, worth, it is said, about $40 a set, or $3200, passed with only one dissenting voice. The Senate adopted a similar resolution and $1600 more went. The raiding, thieving fever was now at its hight and a resolution was introduced, giving to each Assemblyman a copy of every book, chart or map issued by the State Engineer. With complacent unanimity these keepsakes were pocketed. We only wonder they did not call for an express-wagon and carry away the chairs, desks and gilded dome of the capitol. The raid was manfully opposed by a number of faithful representatives, and we are glad to see that the farmer members have done their duty well.

Senate Constitutional Amendment No. 2, relating to the reorganization of the Supreme Court, has been amended by the Assembly, making the office of Chief Justice four years from January after the regular election of Justices, and providing that the Supreme Court Commission shall continue for such time after the four years subsequent to the adoption of the amendment, as may be fixed by an Act passed by a vote of two-thirds of the elected members of the Legislature, if approved by the Governor.

It is well that the little bill before the Senate providing for the repeal of the Act compelling banks to make a semi-annual statement was denied a final passage. What will become of the notice of reconsideration is hard to tell. Brierly's bill for a commission on irrigation was amended so as to include the subject of hydraulic mining and the appropriation raised to $70,000, and will become a law. A compromise memorial on hydraulic mining was adopted in both houses. This memorial asks Congress to spend the $40,000 set apart for litigating the miners in sending out a corps of engineers to study the subject in all its bearings, including its past, present and prospective effect upon the navigable waters of the State.

The constitutional amendment for the reorganization of the Supreme Court has passed the House.

The Governor surprised every one, Tuesday, by vetoing the bill providing an appropriation for establishing a fund for the purchase of jute to be manufactured at San Quentin prison. The reason assigned for vetoing the bill is that an Act of 1885 appropriated for the purpose above set forth the sum of $40,000 as a revolving fund. The new bill adds largely to the fund, and authorizes the manufacture of jute goods without limitations. The bill appropriates $70,000, which would make the revolving fund $110,000, and the Governor says it is excessive and too indefinite. In addition to the revolving fund, about $260,000 will be appropriated for the use and support of the prison. It is virtually placing over $370,000 in the hands of the Directors to invest in purchasing jute and manufacturing jute goods, and in protecting such investment. The bill encourages investment beyond the requirements of the State Prison.

The Governor has approved the bill giving the Boards of Supervisors the right to open, improve and maintain public parks exceeding 10 acres. This is intended to apply to Golden Gate park. The most noticeable and interesting feature just now is the apparent determination to put through the Brooks Pilot bill that has been slumbering for some time in the Senate Committee of Commerce and Navigation. There will be a bitter fight before this can be done, as the pilot and tugboat men have many friends who are good debaters.

The bill intended to grant the Fish Commissioners the right to place a tax upon Chinese fishermen, who are sending millions of dollars worth of fish out of the State every year, without paying as much as a penny therefor, was called up on reconsideration and passed by a vote of 57 to 20.

Tuesday a message was received from the Governor announcing that he had approved Assembly bills 390 and 181. The first appropriates $5000 for the erection of a monument over the grave of J. W. Marshall, the discoverer of gold in California, at Coloma. The other is an Act to amend Section 4008 of the Code of Civil Procedure of the State of California, concerning the issuing of alias summons.

SAN DIEGO decided, at an election held February 26th, to issue $400,000 worth of bonds for constructing a system of city sewerage. The vote stood 1084 to 83. Col. Geo. Waring, sanitary engineer, is to superintend the work of construction.

SANTA CLARA MISSION.—In our last issue, in the article on San Jose, the date of the founding of the Santa Clara mission is given as 1677. The correct date was probably 100 years later.

Napa Grape-Growers and an Agricultural Society.

We learn from our local exchanges that a meeting of farmers was held in the Courthouse at Napa, Feb. 26th, at which it was decided to organize an agricultural society for Napa county and file articles of incorporation.

On motion, 11 persons were chosen a Committee on Incorporation to act as directors for a term of three months, as follows: M. M. Estee, Nathan Coombs, John Even, Leonard Coates and Jos. Cowan, of Napa; A. J. Raney, of Gordon Valley; W. F. Fisher, of Calistoga; John Thomann and B. O. Carr, of St. Helena; J. J. Swift, of Soscol; Harry L. Coleman, of Monticello. These gentlemen were selected from different parts of the county and as representing varied interests. They are to meet again to-day (March 12th) for the purpose of completing the organization, after which by-laws will be adopted, and subscriptions for life-membership solicited.

After the business of the Agricultural and Fair Association was disposed of, Hon. M. M. Estee, president of the Napa Grape-Growers' Association, called attention to the State Viticultural Convention, to be held in San Francisco, and about $25 was collected toward defraying the expenses of that body.

The subject of grafting was then brought up, Mr. Estee suggesting that in early grafting a liquid wax be used, in order to keep out moisture.

Mr. Coates gave as a recipe for such wax, two pounds of beeswax, one pound resin and one-half pound tallow, cooked well together.

Mr. McClure thinks it a great mistake to graft a vine too young. The larger it is, the better the chances for its growing.

Mr. Thompson approved Mr. Curtis' recipe, and said that in grafting small vines, prepared cloth should be employed, as the nurseryman uses it for root-grafting. It should be soaked in wax. This holds the vine together and excludes air and moisture.

Scale pests being spoken of, Mr. Estee expressed the opinion that every large orchard in and around Napa was more or less infected with the black scale, and intelligent efforts are needed to exterminate it. All present agreed that the cottony cushion scale is quite too numerous in Napa and that something must be done shortly to rid the town of this pest.

After further discussion on kindred subjects the meeting adjourned for one month.

Irrigation.

The bill relating to irrigation known as "Wright bill," has received the Governor's signature, and is a law. We have not received a copy since the amendments were made in it, but we shall secure and publish it as soon as possible. In a general way it may be said that the law provides for the organization and government of irrigation districts, and for the acquisition and distribution of water for irrigation purposes. It provides for the application of the law of eminent domain for the condemnation of the existing water rights (with compensation to injured parties), and is in harmony with the recent decision of the Supreme Court on the irrigation question. It also provides a system of elections and assessments and the collection of revenues necessary to carry out the provisions of the Act.

SAN JOSE HORTICULTURAL HALL ASSOCIATION.—A meeting of the Directors of the Horticultural Hall Association was held on Saturday last, at which, as we learn from the *Herald*, President Jones announced that Mr. Hale's mortgage for $1604 had been canceled. It was resolved to indorse the Committee—Mrs. S. T. Ingalls, Frank Dunn, Cyrus Jones—appointed by the Grange to solicit contributions to defray the expenses of a delegation of ladies to represent San Jose and keep up a flower booth at the Santa Cruz Flower Fair. President Jones stated that he had talked to most of the exhibitors, and all had expressed themselves perfectly satisfied with the Central California Citrus Fair.

Our New Street No., 220.

Upon first occupying our present location on Market street, we found our premises numbered 252, and the next door east of us (toward the water front) numbered 218. This discrepancy of numbers has confused people coming up to our office from the ferry-landing. One-fourth of a block above us on Market street, appear the numbers 400 and upward. Parties coming down the street and seeing the numbers 400 and upward, knowing our number to be 252, have naturally concluded that they had a block or two to walk before reaching our place, and have frequently passed by our office to suddenly find themselves abreast of numbers 200 and odd, and have to retrace their steps. Much confusion has occurred in this manner. For this reason we have adopted No. 220 Market street, hoping in a measure to avoid the difficulty, and trusting that some day the city authorities will take the matter in hand, and see that Market street, in our locality, is properly numbered.

Rural Seed Offering—1886.

Great Inducements for New Subscriptions.

To encourage gardening and further extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers the following seeds on the favorable terms named below:

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83 Varieties.

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10 Early French Oxheart. 10
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CELERY.
13 White Solid..... 10
CAULIFLOWER.
14 Early Paris..... 10
CARROT.
15 Extra Early Forcing.. 10
16 Long Orange..... 10
17 Early Horn..... 5
18 White Belgian..... 5
CUCUMBER.
19 White Spine..... 10
20 Early Cluster..... 10
21 Early Frame..... 5
22 Long Green..... 5
23 Eng. Gherkin, Pickles. 10
LETTUCE.
24 Early Curled Silesia... 10
25 Ice Drumhead..... 5
26 Simpson's Early Curl'd 10
27 Prize Head..... 10
28 White Paris Cas..... 10
29 Hanson..... 10
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MELONS.
31 Large Yel. Canteloupe 10
32 Extra Fine Nutmeg... 10
33 Casaba (new)..... 10
34 Cuban Queen W'melon 10
35 Mt. Sweet Watermelon 10
36 Iron Clad Watermelon 10
37 Scaly Bark do..... 10
38 Black Spanish do..... 10
39 White Imp. or Lodi do 10
ONION.
40 Early Red..... 10
41 Red Wethersfield..... 10
42 Yellow Danvers..... 10
44 W. Por'gal or Sil. Skin 10
PARSNIP.
45 White Dutch..... 5
46 New Early Round..... 10
RADISH.
47 Mammoth California.. 10
48 Olive Shaped Radish.. 10
49 Early Scarlet Turnip.. 5
50 Bl'k Spanish or Wint'r 10
SQUASH.
51 Early Scollop Bush.... 5
52 Early Sum. Cr'k Neck. 5
53 California Field..... 10
54 Marblehead..... 10
55 Boston Marrow Wint'r 10
56 New Hubbard Winter. 10
TOMATO.
57 Large Yellow..... 10
58 The Conqueror..... 10
59 Early Red Smooth.... 10
60 Trophy..... 10
61 Canada Victor (earl'st) 10
62 Acme..... 10
TURNIP.
63 Cow Horn..... 10
64 Yel. Rutab'a or Sw'd'h 10
65 Early Wh'e Flat Dutch 5
66 Long White French.... 10
67 Imp. Late Rutabaga.. 5
SPINACH.
68 Round Leaf..... 10
69 Large Flanders..... 10
PEAS.
70 Extra Early..... 10
71 Champion of England 10
72 Yorkshire Hero..... 10
73 Queen of Dwarfs..... 10
BEANS.
82 Black German Wax... 10
83 Refugee..... 10
84 Red Valentine..... 10
MISCELLANEOUS.
74 Kohlrabi..... 10
75 Scotch Kale..... 10
76 Curled Parsley 5
77 Sage..... 10
78 Thyme..... 10
79 Tobacco..... 25
80 Blue Gum..... 25
81 Monterey Cypress..... 25

FLOWER SEEDS.
107 Varieties.

85 Acroclinium..... 5
86 Alonsoa, Grandiflora.. 5
87 Alyssum, Sweet..... 10
88 Amaranthus Abyssin's 15
89 Ageratum Lasseauxii. 10
90 Adlumia Cirrhosa..... 10
91 Ambronia Umbollata.. 10
92 Amaranthus Caudatus (Love-lies-bleeding).. 5
93 Antirrhinum Majus, finest mixed..... 5
94 Cacalia Coccinea (Tassel flower)..... 5
95 Campanula Speculum, (Venus' L'king Glass) 5
96 Candytuft, white frag't 5
97 CentaureaCynus(Bachelor's Button)..... 5
98 Clarkia, fine mixed.... 5
99 Convolvulus (Morning Glory) mixed..... 5
100 Foxglove, mixed..... 5
101 Gilia, mixed..... 5
102 Globe Amaranthus.... 5
103 Gypsophila Elegans... 5
104 Ice Plant..... 5
105 Larkspur, finest mixed 5
106 Linum Grandifl'a(Flax) 5
107 Love-in-a-mist..... 5
108 Marigold, db)French. 5
109 Marigold, African, dbl. 5
110 Mignonette, Sweet.... 5
111 Nasturtium..... 5
112 Nolana..... 5
113 Portulaca, mixed..... 5
114 Poppy, Double, mixed. 5
115 Rocket, Sweet..... 5
116 Scabiosa, Dw'f, mixed. 5
117 Sensitive Plant..... 5
118 Sweet Pea, White..... 5
119 Sweet Pea, Crimson, Everlasting..... 10
120 Sweet Peas, mixed.... 5
121 Sweet William, mixed 5
122 Sunflower, Cal., Dbl'e. 5
123 Adlumia Cirrhosa (Mountain Fringe).. 10
124 Alchea (Hollyhock) fine mixed..... 10
125 Aster, China, mixed... 10
126 Australian Vine..... 10
127 Balsam (Lady Slipper) fine mixed..... 10
128 Bals'm, Fine Paris, dbl 15
129 Balsam, Splendid, dbl. 10
130 Balsam, Dwarf, double 25
131 Balsam, Rose Fl'd, dbl 15
132 Balloon Vine..... 10
133 Browallia Grandiflora. 10
134 Canna (Indian Shot).. 10
135 Canna, fine mixed var. 10
136 Celosia Cristata Varie'a 10
137 Celosia Cristata Purpurea..... 10
138 Clematis Flammula... 15
139 Dahlia Superflua, mxd 25
140 Dianthus Chinensis (Indian Pink)..... 10
141 Dianthus Chinensis Double White..... 10
142 Celosia Cristata, fine mixed (Coxcomb).... 10
143 Chrysanth'um Album. 10
144 Datura, fine mixed.... 10
145 Evening Primrose..... 10
146 Four O'Clock, mixed.. 10
147 Forget-me-not..... 10
148 Geranium Zonale..... 10
149 Geranium, fancy colored leaves..... 25
150 Godetia (The Bride)... 10
151 Gourds (Hercules' club) 10
152 Ipomœa (Cypress Vine) 10
153 Indian Pink, dbl., mxd 10
154 Lobelia, Crystal Palace Compacta..... 25
155 Lobelia, Blue..... 10
156 Musk Plant..... 10
157 Nierembergia Gracilis. 10
158 Pansy, fine mixed..... 10
159 Petunia, mixed..... 10
160 Phlox Drummondii, fine mixed..... 10
161 Pyrethrum Aureum (Golden Feather).... 10
162 Salpiglossis mixed.... 10
163 Stock (Ten Week)..... 10
164 Wallflower, fine mixed 10
165 Wallflower, purple..... 10
166 Zinnia, mixed fine..... 19
167 Zinnia, Scarlet, dbl.... 10
168 Belles Perennis (Daisy) single..... 15
169 Campanula Medium (Canterbury Belle).. 15
170 Canary Bird Flower... 15
171 Thunbergia, mixed..... 15
172 Aquilegia Alpina (Columbine)..... 20
173 Heliotropium, fine mxd 20
174 Heliotrop'm, dark, mxd 20
175 Verbena, choice, mx'd. 20
176 Violet, Blue..... 20
177 Balsam Camelia, flow'd 20
178 Carnation, fine mixed. 25
179 Digitalis..... 5
180 Dolichos(Hyac'thBean) 10
181 Gaillardia Grandiflora Hybridia..... 10
182 Nemophila, fine mixed 10
183 Perillia Nankineusis.. 5
184 Saponaria Multiflora.. 5
185 Scabiosa Atropurpuria 10
186 ScarletRunners(Climbers)..... 5
187 Schizanthus (Hardy Annuals)..... 5
188 Schizanthus, finest mixed colors..... 5
189 Myrsiphylium Asparagoides (Smilax)..... 25

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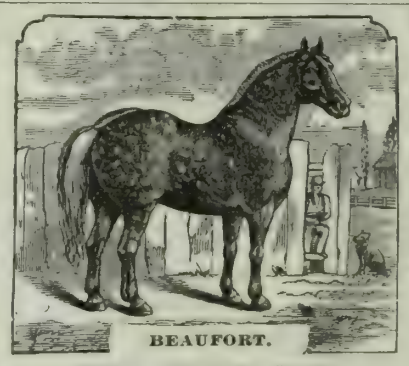
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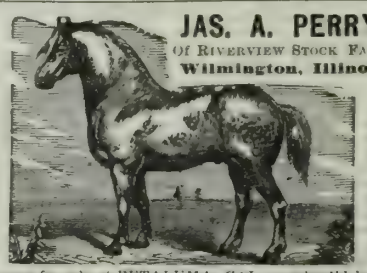
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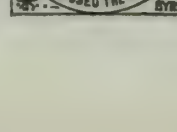
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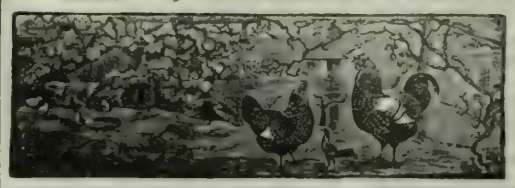
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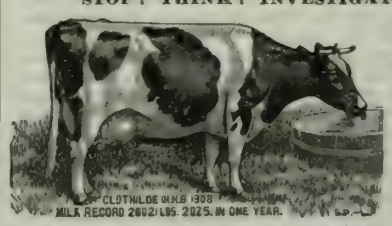
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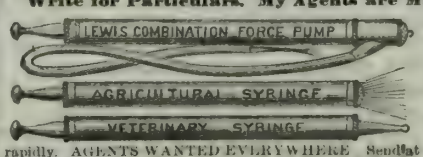
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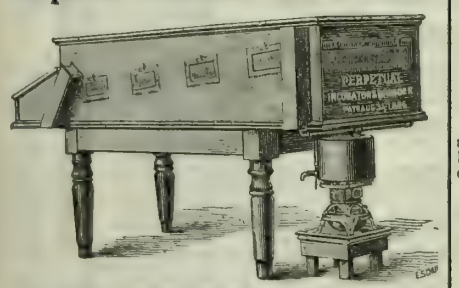
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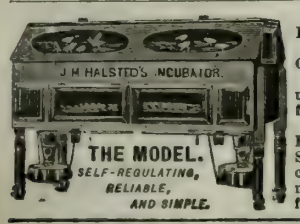
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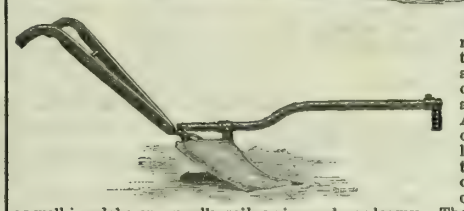
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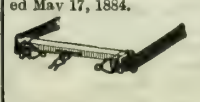
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The single plow can be set to any position, and can be run to or from the trees or vines and within an inch of them without any injury to the same. The handles are also movable, and can be changed from one side to the other to suit the circumstances. This plow has several advantages over all other Vineyard and Orchard plows. Among these are: By changing the beam, no matter to or from the land, the plow will always run in a straight line. By the revolving drop clevis, the plow can be set to or from the land, or in depth. With this plow a man can plow a straight furrow, when he could not with other plows where the beam runs across them. It works as well in adobe or gravelly soil as in sandy or loamy. The plow weighs about 50 pounds. This plow will fill a long-felt want among orchard and vineyard men, who fully appreciate its great value. Plow and Singletree patented May 17, 1884.



PRICE LIST.—Single Plows, with singletrees, $15; Gang Plows with Garden City Plow bottoms attached, $35; Doubletrees with Patent Singletrees, $4.50. Extra Shares, $3.00. Extra Shares can be had of me.

TESTIMONIALS:

HOLLISTER, Sept. 11, 1886.

J. A. BILZ—Dear Sir: I take pleasure in testifying to the good merits of the plow and harrow made by you, which I have used at my vineyard to my entire satisfaction. WM. PALMTAG.

RUBY HILL VINEYARD, PLEASANTON, CAL., July 24, 1886.

J. A. BILZ, ESQ., Pleasanton, Cal.—Dear Sir: Your two-horse Vineyard Gang Plow is a great success. It saves $2 a day over the old method of plowing, and is light in draft. We have two of them with which we turned under weeds this last spring over a foot high, and left the land in excellent condition. CRELLIN BROS.

CRESTA BLANCA VINEYARD, LIVERMORE, CAL., Nov. 27, 1886.

MR. J. A. BILZ—Dear Sir: I have tried several vineyard plows on my place, but none have given such good satisfaction as yours. I take pleasure in recommending it to those who desire good work done economically. CHAS. A. WETMORE.

FRESNO VINEYARD, April 9, 1886.

I have tried Mr. Bilz's double plow, and although very skeptical at the time, I must acknowledge it worked well, and I am much pleased with it. I have made up my mind to put them in the vineyard. D. D. HUDSON, Supt.

PLEASANTON, Sept. 9, 1886.

J. A. BILZ, ESQ.—Dear Sir: I take pleasure in recommending your two-horse Vineyard Plow which I know to be a success, having purchased three of them in plowing in the past season, in my vineyard. Undoubtedly, they are the best implement of the kind I ever used. They are light in draft. It turns the ground over well, and is so regulated you can plow any depth you desire, and it leaves the ground even. It also turns the weeds under better than other plows I have used. I have saved $2.50 per day on each plow. I would not be without the plow for twice their cost. Yours truly, J. A. ROSE.

LIVERMORE, August 1, 1886.

J. A. BILZ, ESQ., Pleasanton, Cal.—Dear Sir: We have used one of your Vineyard Gang Plows during the past season and believe it to be a good plow, doing the work in a thorough and economical manner, and can heartily recommend it to those wishing an implement of this kind. Yours respectfully, S. OSTERHOUT.

LIVERMORE, Feb. 1, 1886.

MR. J. A. BILZ—Dear Sir: I have tried your vineyard plow and find that it works well and gives perfect satisfaction, and I take pleasure in recommending it to any one who wishes a good vineyard plow. Your patent singletree is also a success, and when used in an orchard will save many a tree from being injured. Yours truly, F. KURTZ, Foreman of C. A. Wetmore's Vineyard.

Persons interested in Vineyards and Orchards are invited to call at my shop and examine and try the plow. It is warranted to do all claimed for it. For further particulars apply to

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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 9, 1887.

The past week has shown a greater degree of activity in produce than witnessed for several weeks past, due chiefly to warmer weather, with more sellers and buyers in the market. This is noted more at length in another column. The English wheat market has continued to make steady advances under stronger buying and only moderate offerings from this side. The following is to-day's cable:

LONDON, March 9.—Cargoes off coast, nothing offering; Californian prompt shipment not offered; Cargoes on passage and for shipment, firm but not active; Mark Lane, firm; Cal. wheat just shipped, 39s; Cal. wheat nearly due, 38s 3d; French country market, rising; Liverpool wheat, spot, quiet, but steady; Liverpool wheat, Cal. 7s 6½d@7s 9½d.

Eastern Wheat Markets.

NEW YORK, March 6.—Spot has been in moderate request at firm prices. Options ruled irregular, with a fair degree of activity, closing excited and strong, with gains of from 1⅝@2c; April, 92⅝; May, 93⅜; June, 93⅞; July, 94⅛; August, 94⅛; September, 94⅞; December, 98⅜.

CHICAGO, March 8.—There was wild excitement in the Board of Trade all day. The advance in May wheat from the lowest price of yesterday to the highest to-day was five cents. The market has cornered itself and has been captured by the Nevada Bank syndicate.

Continental and English markets very clearly show the effect of the Chicago boom. The American markets are all higher, but they don't keep up to Chicago in the rapidity of movement on short. This afternoon wheat got up to 86 cents on the curb and opened at 86⅛ cents for May at 2 o'clock. From this time there was free realizing. There was a wild market until bottom was struck at 83¾ cents, when it became steadier, closing at 84⅛ cents. Prominent brokers say there's no doubt of a big "squeeze." Liverpool, California and New York markets are being manipulated likewise. Crashes of small houses are anticipated before long.

Crops at the East.

CHICAGO, March 7.—The crop summary in the *Farmers' Review*, this week, is as follows: Thus far reports from the winter wheat belt indicate that the crop is emerging from the winter in better shape than last year. The crop is not assured from the resulting damage of storms and bad weather, and still has to pass through a critical period; but as a whole the outlook must be regarded as more favorable than at the beginning of March of last year. The extremely mild weather of the opening days of last week, followed by cold weather, caused some injury in Illinois and Indiana. In Michigan and Wisconsin the outlook is reported as very favorable. The season is well advanced in Missouri, and spring plowing has commenced. There is no change in the tenor of reports from Kansas. Fully one-half of the counties report very poor outlook for wheat.

The Chicago Fruit Market.

CHICAGO, March 5.—There is no material change in the fruit market. Inquiry as yet is only moderate, but offerings also are rather light. Some apples are selling all the time on the open market, and there is moderate trading between jobbers in other lines of fruit within about the previous range of quotations. For California dried fruits there is moderate inquiry, and at late quotations the market rules about steady. Prunes, French, per lb, 7@9c; plums, pitted, 10@11c; peaches, halves, 11@12½c; halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London layers, 20-lb boxes, per box, $1.35@1.40; loose Muscatel, per box, $1.25@1.30. Oranges are steady and rather firm for choice, which are only in moderate supply, but there are a good many common on hand yet, and these being easy prevents any material improvement in the general market. California bright Riverside, $1.75@2.50; California Navel oranges, according to quality, $3@6.

Eastern Wool Markets.

NEW YORK, March 6.—There was little more doing, and slight concessions on fleece were made, but as a general thing, holders were firm in their views. The demand is moderate and manufacturers are independent. Some odd lots of Territory and Texas wools are said to have been closed out at low prices and not reported. Among the sales were 25,000 lbs Territory at 18½@22c, and 15,000 California and 10,000 Territory on private terms. California northern spring clip is quoted at 20@26c; do fall clip, 14@17c; California southern spring clip, 14@18c; do fall clip, 11@12c.

The Philadelphia market is quiet, most sales being of small lots for actual requirements. Holders are free sellers, and are occasionally shading prices. Among sales were 2000 pounds Territory fine at 21c, and 15,000 pounds Territory at 23c.

The Boston market is in buyers' favor. Among sales were 73,000 pounds Territory at 24@26c; 81,000 pounds California spring and Oregon at 18½c and on private terms.

BOSTON, March 8.—Wool is in fair demand and prices are firm. Ohio and Pennsylvania fleeces, 32@33c ₩ lb; do XX, 34@35c; Michigan extra, 31@32c; Ohio delaine, 36@37c; Michigan do, 34@35c; pulled wools, choice super, 38@42c; fair to good super, 30@35c; extra pulled, 27@32c.

NEW YORK, March 8.—Wool is quiet and barely steady. Domestic fleeces, 38c ₩ lb; pulled, 14@35; Texas, 9@25c.

New York Hop Market.

NEW YORK, March 6.—The market is steady, without new features. Coast crop of 1886, best, 21@23c; same, common to good, 16@19c; 1885, good to prime, 8@10c.

Dried and Canned Fruit at the East.

NEW YORK, March 6.—Canned Goods—The market is strong, but the demand is generally light. California canned peaches, $2.50; pears, $2.50@3.25; plums, $1.75@2; apricots, $2.10.

Raisins—There is little more doing, but as a rule buyers appear opposed to purchasing with a view to supplying future wants. Malaga and California raisins are nominally unchanged; California loose Muscatel, $1.50; London, $1.70@1.65.

Prunes—Turkish are in improved demand at 5¾@5½c; Bohemian, steady at 4¾@5c; French, 7¼@8c for 60's and 90's.

Currants—Firm, at 4½@4⅝c.

Local Markets.

BAGS—The market is easier, with more sellers than buyers at quotations. Calcutta standard sized are quoted at 6¼@6⅝ for June-July delivery.

BARLEY—The market, after falling to 97½c@$1 for No. 1 feed, reacted under strong buying to $1.02½ to $1.05. Buying has been chiefly for consumption, shipping and speculation. The consumption continues very heavy. The following are to-day's sales on Call:

Morning Session: Buyer season—100 tons; $1.04¾; 100, $1.04⅝; 600, $1.04½; 600, $1.04¼; 200, $1.04; 200, $1.03⅞; 100, $1.03¾; 200, $1.03⅝; 1200, $1.03½; 400, $1.03¼; 100, $1.03⅛; 1100, $1.03. May—100 tons, $1; 200, $1.00⅛. No. 1 Brewing, buyer season—100 tons, $1.14⅞ ₩ ctl. Afternoon Session: Buyer season—100 tons, $1.03⅛; 600, $1.03; 100, $1.02⅞; 300, $1.02¾; 200, $1.02 5-8; 200, $1.02½ ₩ ctl.

BUTTER—The market has a stronger tone, owing to dealers confining purchases to fresh roll. Receipts are large, but, as yet, do not accumulate.

CHEESE—The market continues to sink under free receipts and only a moderate demand.

EGGS—Receipts are in excess of the demand, causing lower prices to rule. Under the lower prices the consumption is largely increased.

FLOUR—The market in sympathy with a stronger wheat market is firmer, with an advance asked, but, as yet, not established. It is claimed that quotations will soon be higher.

WHEAT—Trading the past week has been large, with all parcels offering on the market quietly taken in up to quotations. Stocks now here are well concentrated. On Call, prices have been pushed up, from day to day, until an advance of over 13 cts per cental was paid on last week's prices. The following are to-day's sales on Call:

Morning Session: Buyer season — 1000 tons, $1.70; 100, $1.69⅞; 2000, $1.69¾; 500, $1.69⅝; 1800, $1.69½; 500, $1.69⅜; 2700, $1.69¼; 200, $1.69⅛; 1400, $1.69; 400, $1.68¾. Buyer 1887—300 tons, $1.73½; 200, $1.73; 400, $1.72½; 1300, $1.72¾. Seller 1887—3600 tons, $1.55; 500, $1.55¼; 100, $1.55½ ₩ ctl. Afternoon Session: Buyer season—100 tons, $1.68¾; 400, $1.68½; 200, $1.68 5-8; 100, $1.68¼; 100, $1.88½; 4400, $1.68. Buyer 1887, 100 tons, $1.72½; 200, $1.71¾. Seller 1887—300 tons, $1.54¾; 600, $1.54⅜; 100, $1.54 5-8; 100, $1.54½; 200, $1.54¾; 100, $1.54; 100, $1.53⅞ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

European advices report that Great Britain will require to import from February 1 last, to August 31 next, at least 100,000,000 bushels of wheat, so as to keep the reserve stock from decreasing. To obtain this, free importations will have to be made, which necessarily will send values in the supply markets to still higher prices. The Indian wheat acreage is officially placed at last year's, with the outlook favorable to an average outturn. As the consumption in that country is increasing, and the reserve stock greatly reduced, there will be a lessened exportable surplus. Eastern advices continue to give the wheat situation as very strong, due to large reduction in the visible stock, and large exporting. It is claimed that the decline in values, last month, forced many holders of wheat to sell which was taken in by exporters and bull speculators at lower prices. With weak holders cleaned out, better prices was a natural consequence. Crop advices are without any material change to note. In this State there is nothing new to report about the crop. The weather continues favorable for the growing plant. In the local market a sharp advance in prices was made on Friday and Saturday last, followed by still better prices on Monday. The advance was due to an improved market at the East, and a large short interest on Call, filling. Holders of large parcels are firm in their advanced views, claiming that before next harvest they will be reached. This opinion is based on the large tonnage in port, and an almost certainty of higher prices for wheat abroad.

The barley market ruled strong throughout the week, under better buying on the long side. It is claimed that there is a large short interest on Call, which, if correct, may be forced to fill any day at better prices. It is now reasonably certain that the stock of barley in this State on January 1 last, given out by the Produce Exchange, was largely exaggerated, thus proving the correctness of this paper's assertion that the Produce Exchange's large stock return was wrong. The demand the past week showed a decided increase for consumption and also seed, as well as for shipment. Crop prospects continue very favorable.

The oat market continues to hold to strong prices for choice grades, but is slow and easy for off grades, owing to the over-supply of the latter in this city.

The market for corn is barely steady. The demand is reported to be improving, but the stock of Western here and to arrive is claimed to be largely in excess of the trade wants for the immediate future.

The rye market has a quiet but steady tone.

The demand for buckwheat is light, but the supply is also light.

Feedstuffs.

Ground barley is lower, but strong at the decline. Bran and middlings are quiet but steady, as is feedmeal.

Choice to extra choice hay continues light, causing dealers to bid well up so as to have their wants met. Poorer grades are offering freely at the lower prices.

Live-Stock.

Beef cattle are lower under free offerings. It is claimed that a still lower range will rule, owing to the improved pasturage allowing them to take on flesh more rapidly. Those now coming in are in fine condition and weigh more to the bullock—fetching more per head but less by the pound. Mutton sheep are steady, at the last quoted advance. After shearing it is claimed that lower prices will obtain. Hogs continue stiff, under light supplies and a good demand. Carriage horses are scarce and fetch good prices. Sales of matched teams, good steppers, and fine carriage, sell at from $700 to $1000 a span. Common work horses are slow and hard to sell.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 6¾@7c; wethers, 7¼@8c.

LAMB—Spring, 12½@15c.

VEAL—Large, 5@7c; small, 6@9c.

PORK—Live hogs, 4¾@5½c for heavy and medium; hard dressed, 7@8c per lb; light, 4½@5c; dressed, 6¾@7¼c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Fruits.

Oranges are in heavy supply, necessitating some dealers to close out consignments accepting lower bids. At the lower prices, coupled with finer weather, the demand shows a decided advance. Shipments to Northern ports are increasing.

Apples are in freer supply, with Eastern pressing the market, but lower bids are only accepted to close out an assignment.

Limes and lemons continue to rule strong for the more choice.

Dried fruits are steady at full quotations. The stock here and supply to draw from are light.

Raisins, unless very choice, are placed with difficulty. Dealers quote lower. The stock here is light.

Vegetables.

Potatoes are higher, with a strong closing at the advance. The supply of choice is light, with a good demand ruling for the more desirable grades. New are coming in more freely, with the quality still improving, allowing their being shipped North on orders.

The onion market continues poorly supplied with choice grades, causing buyers to bid well up so as to have their wants met. Off grades are in good supply at the lower prices.

Spring vegetables are coming in more freely, creating lower prices. It is claimed that with warmer temperature receipts will show a still larger increase and lower prices before the month closes.

Cabbages are in fair supply. The demand continues to be confined chiefly to distant orders.

Root vegetables are steady at full quotations.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	201,703	166,509
In port, disengaged	125,927	61,840
In port, engaged	16,370	57,214
Totals	344,000	285,563

The above gives a carrying capacity as follows: 1887, 550,786 short tons; 1886, 456,900 short tons; increase over last year, 93,886.

Beans are easy, at a slight decline, owing to freer offerings.

Ducks, geese, turkeys, and choice young hens and roosters are scarce, and higher.

In game, the market fluctuates daily.

Hops are steady, with holders not offering at present prices.

Wool is very dull; buyers appear to be bidding down so as to purchase the Spring clip at low prices.

Lard is higher and strong, at the advance.

Honey is quiet, but strong at the higher quotations.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 9, 1887.

Apples, bx com..	1 00	@	1 50	Nectarines	8	@ 10
do choice.....	1 75	@	3 00	do evaporated	16	@ 18
Bananas, bunch.	2 00	@	3 25	Peaches.....	8	@ 10
Blackberries, ch.	—	@	—	do pared.....	18	@ 20
Canteloupes, cr.	—	@	—	Pears, sliced....	5	@ 6
Cherries blk....	—	@	—	do grtd.....	4	@ 5
do Royal Ann..	—	@	—	do evaporated	8	@ 10
Cherry plums...	—	@	—	Plums, pitted..	9	@ 10
Crabapples.....	—	@	—	do unpitted...	3	@ 5
Cranberries	10 00	@	12 50	Prunes.....	6	@ 10
Currants chest...	—	@	—	do French	10	@ 13
Figs, bx	—	@	—	Zante Currants.	8	@ —
Grapes.....	—	@	—	RAISINS.		
do Rose Peru.	—	@	—	Dehesa Clus, fcy	2 40	@ 2 50
do Muscat....	—	@	—	Imperial Cabinet, fancy....	1 75	@ —
do Tokays....	—	@	—	Crown London Layers, fcy..	1 50	@ —
Isabel.....	—	@	—	do Loose Muscatels, fancy	1 40	@ —
Wine, Zinfandel	—	@	—	do Loose Muscatels.....	1 35	@ —
do Mission....	—	@	—	Cal. Valencias..	1 25	@ —
Limes, Mex.....	—	@	—	do Layers	1 25	@ —
do Cal. box ...	75	@	1 50	do Sultanas...	1 25	@ —
Lemons, Cal., bx	1 25	@	1 75	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.		
do Sicily, box	2 00	@	3 00			
do Australian.	—	@	—	VEGETABLES.		
Nectarines box.	—	@	—	Artichokes, doz.	—	@ —
Oranges, Com bx	1 25	@	1 75	Asparagus ₩ lb..	8	@ 12½
do Choice.....	2 00	@	2 25	do cultivated.	—	@ —
do Navels.....	2 50	@	4 50	Okra, dry, lb...	15	@ 20
do Panama....	—	@	—	do green box..	—	@ —
Peaches, bx.....	—	@	—	Paranips, ctl....	1 50	@ —
do bask	—	@	—	Peppers, dry lb..	10	@ —
Crawfords, bx	—	@	—	do green, lb..	20	@ 25
do bskt..	—	@	—	Pumpkins per ton	—	@ —
do choice	—	@	—	Squash, Marrow fat, 100.....	15 00	@16 00
Pears bx	—	@	—	do Summer bx	—	@ —
do choice.....	—	@	—	String beans lb..	8	@ 10
do Bartlett, bx	—	@	—	Tomatoes box..	1 50	@ 2 25
Persimmons, Jap, bx.....	—	@	—	Turnips ctl.....	25	@ 60
Pineapples, doz.	4 00	@	5 00	Beets, sk	75	@ —
Pomegranates, b	—	@	—	Cabbage, 100 lbs.	1 30	@ 1 55
Prunes bx.....	—	@	—	Carrots, sk.....	35	@ —
do Egg.....	—	@	—	Cauliflower, doz.	—	@ —
Quinces bx.....	—	@	—	Eggplant, ₩ bx.	12½	@ 15
Raspberries ch..	—	@	—	Garlic, lb	3	@ 3½
Strawberries ch.	—	@	—	Green Corn, small box...	—	@ —
Watermelons 100	—	@	—	do large box...	—	@ —
DRIED FRUIT				Green Peas, lb..	4	@ 7
Apples, sliced, lb	5	@	6½	Lettuce, doz....	10	@ —
do evaporated.	11	@	12½	Lima Beans lb..	—	@ —
do quartered..	4	@	5	Mushrooms, lb..	8	@ 12½
Apricots.....	13	@	15	Rhubarb lb.....	12½	@ 17½
do evaporated	20	@	25			
Blackberries....	9	@	11			
Citron	28	@	30			
Dates.....	9	@	10			
Figs, pressed....	5	@	6			
Figs, loose.....	3	@	4			

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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A. J. HARE—El Dorado Co.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 9, 1887.

BEANS AND PEAS.				Peanuts	4½	@ 5
Bayo, ctl.....	1 65	@	1 90	Filberts	10	@ 11
Butter.....	1 40	@	1 75	Hickory.....	7	@ 8
Pea.....	1 75	@	1 95	POTATOES.		
Red.....	1 25	@	1 60	Burbank.....	2 00	@ 2 50
Pink.....	1 40	@	1 55	Early Rose.....	1 50	@ 1 75
Large White....	1 75	@	1 90	Cuffey Cove.....	1 75	@ 2 00
Small White....	1 75	@	1 95	Jersey Blues...	1 75	@ 2 25
Lima	2 00	@	2 45	Petaluma.....	—	@ —
Fld Peas, blk eye	1 00	@	1 05	Tomales.....	1 50	@ 2 00
do green.....	1 00	@	1 12½	River reds.....	1 50	@ 1 80
do Niles.....	1 25	@	—	Humboldt.....	—	@ —
BROOM CORN.				do Kidney.....	—	@ —
Southern per ton	50	@	75	Chile	—	@ —
Northern per ton	50	@	75	do Oregon....	1 80	@ 2 25
CHICORY.				Peerless.....	1 75	@ 2 25
California.....	4	@	4½	Salt Lake.....	—	@ —
German.....	6½	@	7	New Potatoes....	2½	@ 3½
DAIRY PRODUCE, ETC.				POULTRY AND GAME.		
BUTTER.				Hens, doz.....	6 00	@ 8 00
Cal. fresh roll, lb.	15	@	17½	Roosters.....	5 50	@10 00
do Fancy brands	19	@	21	Broilers	5 00	@ 7 00
Pickle roll.....	15	@	16½	Ducks, tame....	6 00	@ 9 00
Firkin, new.....	15	@	16	do Mallard....	3 00	@ —
Eastern.....	—	@	—	do Sprig.....	1 00	@ —
CHEESE				Geese, pair.....	2 00	@ 2 25
Cheese, Cal., lb..	10	@	13½	do Goslings ...	—	@ —
Eastern style...	13	@	14	Wild Gray, doz	75	@ 1 50
EGGS.				Turkeys, lb.....	18	@ 20
Cal., ranch, doz..	17	@	18	do Dressed..	20	@ 21
do, store.....	16	@	17	Turkey Feathers, tail and wing..	10	@ 20
Ducks	—	@	—	Snipe, Eng., doz.	—	@ —
Oregon	—	@	—	do Common..	—	@ —
Eastern.....	16	@	18	Doves.....	75	@ 85
Utah.....	—	@	—	Quail.....	—	@ —
FEED.				Rabbits.....	1 00	@ —
Bran, ton.....	15 00	@	16 00	Hare.....	1 25	@ 1 75
Cornmeal.....	23 00	@	24 00	Venison	8	@ 10
Gr'd Barley ton.	22 00	@	23 00	PROVISIONS.		
Hay	9 00	@	14 00	Cal. Bacon.		
Middlings.....	21 00	@	23 00	Heavy, lb.....	8½	@ 9
Oil Cake Meal.	36 50	@	28 50	Medium	8½	@ 9
Straw, bale.....	40	@	60	Light.....	10½	@ 11½
FLOUR.				Extra Light..	12	@ 12½
Extra, City Mills	4 25	@	4 75	Lard.....	8	@ 11½
do Co'nty Mills	3 80	@	4 25	Cal. Smoked Beef	11½	@ 12½
Superfine.....	3 00	@	3 75	Hams, Cal.....	10	@ 12½
GRAIN, ETC.				do Eastern..	13	@ 14
Barley, feed, ctl.	1 00	@	1 06½	SEEDS.		
do Brewing..	1 05	@	1 15	Alfalfa.....	9	@ 10
Chevalier.....	1 45	@	1 60	Canary.....	3½	@ 4
do Coast.....	90	@	1 45	Clover red.....	12	@ 13
Buckwheat	1 00	@	1 20	White.....	17	@ 18
Corn, White....	1 00	@	1 07½	Cotton.....	20	@ —
Yellow	1 00	@	1 05	Flaxseed.....	2½	@ 2½
Small Round.	1 05	@	1 15	Hemp.....	4	@ 4½
Nebraska.....	97½	@	1 02½	Italian RyeGrass	25	@ —
Oats, new.....	—	@	—	Perennial.....	7	@ 9
Choice feed.....	1 42½	@	1 47½	Millet, German..	4½	@ 5
do good.....	1 40	@	—	do Common.	7	@ 10
do fair.....	1 30	@	1 37½	Mustard, white..	3	@ 3½
do black	1 40	@	1 55	Brown.....	2 25	@ 2 75
do Oregon	1 30	@	1 60	Rape.....	1	@ 1½
Rye.....	1 10	@	1 25	Ky. Blue Grass..	14	@ 13
Wheat milling.				2d quality.....	11	@ 12
Gilt edged..	1 71½	@	1 75	Sweet V. Grass..	75	@ —
do Choice.....	1 66½	@	1 70	Orchard.....	20	@ 25
do fair to good	1 60	@	1 65	Red Top.....	15	@ —
Shipping choice	1 67½	@	1 71½	Hungarian....	8	@ 10
do good.....	1 65	@	—	Lawn	30	@ 40
do fair.....	1 62½	@	—	Mesquit.....	10	@ 12
HIDES.				Timothy.....	5½	@ —
Dry.....	—	@	16	TALLOW.		
Wet salted.....	8	@	9½	Crude, lb.....	2	@ —
HONEY, ETC.				Refined.....	6	@ —
Beeswax, lb.....	20	@	22	WOOL, ETC.		
Honey in comb.	9	@	12	SPRING—1886		
Honey in comb, fancy.....	13	@	14½	Humboldt and Mendocino ...	23	@ 25
Extracted, light.	4	@	4½	Bact'o valley....	17	@ 20
do dark.	3½	@	4	Free Mountain.	17	@ 20
HOPS.				N'hern defective	—	@ —
Oregon.....	17½	@	22½	S Joaquin short.	14	@ 13
California.....	15	@	22½	do long.....	—	@ —
ONIONS.				Cava'r & P'ch'll.	—	@ —
Pickling.....	—	@	—	Oregon Eastern.	17	@ 22
Silverskin.....	1 50	@	2 50	do valley.....	23	@ 25
NUTS—JOBBING.				Southern Coast.	13	@ 17
Walnuts, Cal., lb	12½	@	13½	FALL—1886		
do Chile.	—	@	—	Southern, free..	17	@ 20
Almonds, hd shl.	5	@	7	do defective..	12½	@ 19
Soft shell.....	15	@	19	Northern, free..	20	@ 23
Paper shell	18	@	20	do defective..	15	@ 20
Brazil.....	11½	@	13	Middle free.....	18	@ 21
Pecans.....	9	@	11	do defective..	15	@ 18

A NEW FRUIT EVAPORATOR.

A large number of fruit-growers who suffered heavy losses in past seasons, on account of their inability to bring their fruits to market from remote locations, or [to] otherwise handle the same to a profit, will be glad to hear that a most perfect machine for evaporating all kinds of fruits, potatoes, vegetables, etc., has recently been patented, and can be put to practical use this coming season. Its principal features of improvement on machines of this kind are: An ingeniously constructed furnace for heating the air rapidly with the smallest amount of fuel; a heat regulator which can be made to work automatically, and maintains the heat at any desired degree, and a suction fan which circulates the hot air through the apparatus, and returns it still highly heated to the furnace to be reheated. The material to be dried is placed on hollow shelves, through which the hot air passes, and being thereby subjected to any desired degree of heat from above and below, the water contained in it is quickly evaporated, leaving the fruit in a fresh and beautiful looking condition, without in the least impairing its flavor. The apparatus is constructed in such a manner that it can be taken apart or put up in a short time, and easily removed from one location to another. Either coal, wood, gas or any other fuel can be used. This is pronounced by practical fruit men the best evaporator made, and taking in consideration its cheapness of construction and perfect working, it is bound to take the lead of all machines of this kind.

☞ State and County Rights for sale and particulars by

WM. F. LAMBERT,
333 Bryant St.

HEREFORD CATTLE
AT SACRAMENTO.

T. P. A. WILLIAMS has just arrived with an importation of

Thirty Head of Herefords:

Bulls, cows, heifers and calves (all recorded in English and American Herd-books), the property of James Kay, Lancashire, England, whose herd embraces 100 breeding cows, all descendants of Lord Wilton, Grove Third and Grateful—the most valuable Hereford strains obtainable.

The cattle are at the Agricultural Park, Sacramento, for inspection and for sale. Correspondence solicited.

Address: T. P. A. WILLIAMS,
Western Hotel, Sacramento.

NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS OF THE GRANGERS' BUSINESS ASSOCIATION, a corporation, for the election of a Board of Directors for the ensuing year, and for the transaction of such other business as may properly come before it, will be held at the office of the corporation, 108 Davis Street, San Francisco, at 10 o'clock A. M., Wednesday, April 13, 1887.

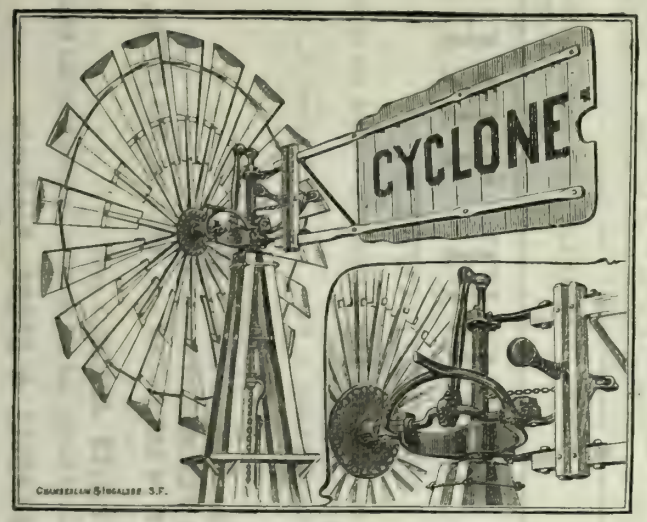
CHAS. WOOD, Sec'y. DANIEL INMAN, Pres't.

WINDMILLS!

Are all very well and the "CYCLONE" is the BEST OF ALL Mills, and looks FINE when running, BUT unless a PUMP is attached, it will not raise WATER. Hence, we have in stock a large line of Pumps for SHALLOW and DEEP WELLS, and any of our Agents will supply them.

ANYBODY who wants a Mill can write to us, and we will send him name of nearest Agent, who will ALWAYS SELL AT OUR LIST PRICES, FREIGHT ADDED.

THE **BEST** —IN— **CALIFORNIA.**



AND THE **BEST** —IN— **THE WORLD.**

10-Foot Mills, - - -	$50.	16-Foot A Mills, - - -	$90.
12-Foot Mills, - -	65.	16-Foot B Mills, - -	110.
14-Foot Mills, - - -	75.	18-Foot Mills, - - -	125.
20-Foot Mills, - -	$150.		

SELF-REGULATING

No Care Required, Except Oiling.

☛ These Mills are built in Santa Clara and sold by the

PACIFIC MANUFACTURING CO.,

934 & 936 Mission St., San Francisco, Cal.

PACIFIC COAST WEATHER FOR THE WEEK,

[Furnished for publication in this paper by NELSON GORDY, Sergeant Signal Service Corps, U. S. A.]

DATE.		Portland.	Red Bluff.	Sacramento.	S. Francisco.	Los Angeles.	San Diego.
Mar. 3-9.	Rain						
	Temp.	45	50	58	54	64	64
	Wind	NE	S	SE	S	S	SW
	Weather	Fr.	W	LR.	Th.	Cy.	LR.
Thursday	Rain	.00	.42	.48	.23	.—	.—
	Temp.	46	50	54	56	58	58
	Wind	W	S	S	S	S	NW
	Weather	Cy.	W	Cl.	Cy.	Fr.	Cy.
Friday	Rain	.10	.38	.19	.23	.02	.02
	Temp.	46	55	57	56	58	58
	Wind	W	NW	N	S	NW	NW
	Weather	Cy.	Cy.	Cl.	Cl.	Fr.	Cy.
Saturday	Rain	1.33	.30	.00	.00	.00	.00
	Temp.	50	56	55	62	60	58
	Wind	S	W	SE	SW	E	W
	Weather	Cy.	Fr.	Cl.	Fr.	Cl.	Cl.
Sunday	Rain	.73	.00	.00	.00	.00	.—
	Temp.	50	58	55	68	68	60
	Wind	S	W	SE	S	S	NW
	Weather	Cy.	Cl.	Cl.	Cl.	Cl.	Cl.
Monday	Rain	.02	.00	.00	.00	.—	.—
	Temp.	61	58	56	66	60	60
	Wind	N	S	SE	S	S	NW
	Weather	Cl.	W	Cl.	Cl.	Cl.	Cl.
Tuesday	Rain	1.08	.00	.00	.00	.—	.—
	Temp.	48	58	54	65	64	64
	Wind	S	S	SW	W	W	SW
	Weather	LR.	Fr.	Fr.	Cy.	Cl.	LR.
Wednesday	Rain	.27	.00	.00	.00	.00	.00
	Temp.	51	64	50	55	69	60
	Wind	S	N	NW	E	S	NW
	Weather	Cy.	Cl.	Cl.	Cl.	Cl.	Cl.
Total	Rain	.31	.00	.00	.00	.00	.00
	Temp.	53	68	62	68	82	74
	Wind	S	N	NW	N	NW	NW
	Weather	Cy.	Cl.	Cl.	Cl.	Cy.	Cl.
	Rain	3.77	.85	.67	.23	.02	.—

EXPLANATION.—Cl, for clear; Cy, cloudy; Fr, fair; Fr, foggy; — indicates too small to measure. Temperature and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

WAKELEE'S

THE BEST DON'T BUY AN Inferior Article BECAUSE IT IS CHEAPEST.



More Profitable to some one else

SQUIRREL AND GOPHER EXTERMINATOR!

IN 1-LB. AND 5-LB. CANS.

THE BLATCHLY FRUIT DRIER.

A. BLATCHLY, manufacturer of all kinds and sizes of Driers, from the smallest Family Stove Drier to the huge Raisin Drier, holding 100,000 pounds of fruit at a charge. Also, all Machinery required in building Driers, as Steam Engines and Boilers. Steel Fan Wheels—the strongest and lightest running made. Heaters—a great variety. Iron and Wooden Cars of all sizes, with wheels running equally well on a track or floor. Trays, large or small, with Wood, Metal or Wire Cloth Bottoms. Car Tracks, Thermometers, Hygrometers, etc.

RAISIN DRIERS A SPECIALTY.

Being the first to make in Fresno, in 1884, a machine-dried Raisin that sold for as high or higher price than the sun-dried, and having the experience of the last three years, renders it possible to build a Raisin Drier guaranteed to be superior to any now in use in cheapness and efficiency. Estimates and prices furnished on application to

DR. A. BLATCHLY, - - - SAN FRANCISCO, CAL.

237 FIRST STREET,

HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

J. R. CATES & CO. PROPRIETORS,
417 Sansome St. San Francisco

BEET AND CARROT SEED.

Just arrived from France, a large invoice of fresh and reliable BEET and CARROT SEED.

Long Red, Mammoth Long Red, and Yellow Globe Mangel Wurzel. Yellow Ovid and Vilmoren's Improved White Sugar Beet Seed; Long White Belgian and Long Orange Carrot Seed.

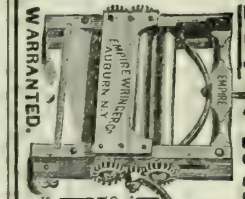
Also in stock, California grown Seed of the above varieties. For sale at the

Geo. F. Silvester Seed Store,
SAMUEL BRECK, Proprietor,
817 Washington St., San Francisco, Cal.

PALACE DYE WORKS,

1332 Market St., opp. Odd Fellows' Building
San Francisco, Cal.

All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.
CHAS. J. HOLMES, Manager.



BUY THE WRINGER THAT SAVES THE MOST LABOR.

OUR PURCHASE GEAR

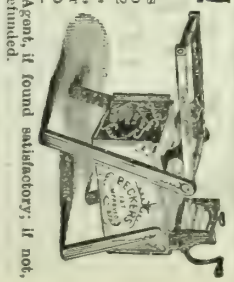
EMPIRE The Clothes

DOES NOT GREASE other wringers, but uses little more. Solid White Rubber Rolls. Are Warranted Longest. Sell

Special Offer!

I will ship, in localities where, as yet, I have no AGENT, one sample No. 2 "New Becker" Washer, Improved Sept. 1, 1886, and "Empire" Wringer for trial; the party to pay for them at wholesale prices and act as Agent, if found satisfactory; if not, RETURN them. Money refunded.

E. W. MELVIN, Proprietor,
Office, 806 J St., Sacramento, Cal.
P. O. Box 312.





HOLLISTER, CALA.

The Leading Horse Farm of the Pacific Coast.

TIMBER CARLOADS OF

NORMAN-PERCHERON

Thoroughbreds, all ages, both sexes, just received from M. W. DUNHAM'S GREAT NURSERY, Wayne, Du Page Co., Ill. Graded stock also on sale. Large assortment to select from. Any horses sold by me are guaranteed as represented. You can do as well with me, if not better, than elsewhere. LARGEST AND BEST. Weight as high as 2200 pounds. Some of my horses are on exhibition at Knickerbocker Stables, San Jose.

E. J. TURNER, Hollister, Cal.

JOHN FATJO, Santa Clara, 70 head of Angora Goats. Imported Buck for sale. Sheep.

Seeds, Plants, Etc.

Præparturiens Headquarters!



Second Generation Præparturiens Walnut!

The only kind that can be guaranteed **TRUE**, or of having retained the surprising characteristics of **PRECOCITY, FERTILITY** and **HARDNESS** of the **"ORIGINAL PRÆPARTURIENS."**

Mountain-grown Trees, **Heavily Rooted**, all sizes, and from 1 to 4 years old, grown from nuts borne on the the "Original Præparturiens."

☞This variety being so much later in budding out than the California Common English Walnut, may be ordered till the middle of April. Send for Illustrated Catalogue with chapter on Nut-Bearing Trees.

BARREN HILL NURSERY,
Nevada City, Cal.

FELIX GILLET, Proprietor (introducer of the Præparturiens Walnut into California, 1871).



☞Our New Catalogue for 1887, mailed free on application, contains description and price of Vegetable, Flower, Grass, Clover, Tree and Field Seeds; Australian Tree and Shrub Seeds; native California Tree and Flower Seeds, Fruit Trees, and many new novelties introduced in Europe and the United States.

THOS. A. COX & CO.,
411, 413, 415 Sansome St., San Francisco.

B. V. CUTTINGS.

Bordeaux Varieties.

I OFFER FOR SALE, AT $10 PER M., 200,000 CUTTINGS of the following renowned varieties, tule-packed, F. O. B. at depot: Cabernet Sauvignon, Cabernet-Franc, Merlot, Verdot, Malbec, Tinturier, Portal-Ploussard, Mondense, Petite Sirrah and Grosse Blue. Also from $2.50 to $5.00 per M. all other well-known wine and table grape varieties, too numerous to mention. The above Grape Cuttings are from our vineyard, and we guarantee them true to name, healthy, in good condition, and offered at lowest market price. Ten (10%) per cent invariably in advance on small orders. Information furnished, if desired. Will not guarantee cuttings procured for accommodation from other vineyards, but will always select them from responsible parties and in healthy locations. The Burgundy and Bordeaux varieties are very scarce, and parties desiring to plant this winter would do well to secure their cuttings at once, and save money and disappointment.

J. B. J. PORTAL,
Box 627. San Jose, Santa Clara Co., Cal.

SEED! SEED!

TWO CARGOES OF TAHITI ORANGES due about the middle of April. Send your orders for Seed in time, as we have a large quantity engaged already. SEND FOR PRICE LIST.

L. G. SRESOVICH & CO.,

413, 415 & 417 WASHINGTON STREET,
SAN FRANCISCO, CAL.

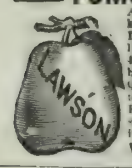
C. M. SILVA & SON, Nurserymen,

Newcastle, Cal., and Lincoln, Cal.

Fruit Trees, Small Fruit Plants, Etc.

Our Nurseries at Lincoln are located in new grounds, entirely isolated from all orchards or vineyards. Send for Catalogue. Address, C. M. SILVA & SON, Newcastle, Placer Co., Cal.

1838 POMONA NURSERIES 1887



A superb stock of **LAWSON**, best early market Pear, **KIEFFER**, best late market Pear, **LE CONTE** & other Pear trees, **WILSON, Jr.**, largest known Blackberry, 163 bu. per acre, 4½ inches around. **ERIE**, the largest very hardy Blackberry. **MARLBORO & GOLDEN QUEEN** Raspberries. **PARRY** and **LIDA**, the best market Strawberries. **NIAGARA, EMPIRE STATE**, and other Grapes in large supply. All the worthy **OLD** and promising **NEW FRUITS**. Catalogue FREE.

WM. PARRY, Parry, N.J.

CHERRIES and PRUNES.

First-class 2-year old CHERRY TREES, leading varieties, Black Republican, etc. HUNGARIAN and GERMAN PRUNES, 1-year old, on MYROBOLAN Stock; 6 feet high. A BARGAIN FOR CASH.

ISAAC COLLINS,
Haywards, Cal.

33d YEAR. **STOCKTON NURSERY.** 33d YEAR.

WHITE ADRIATIC,

SAN PEDRO, SMYRNA, and ENDRICH FIGS.

Præparturiens, Macrocarpa, Mayette, and Chaberte Walnuts, Chestnuts, Persimmons, Mulberries, Olives, Oranges, Lemons, Pears, Apples, Peaches, Apricots, Cherries, etc. Plums and Prunes on Myrobolan Stock, Grapevines, Ornamental Trees, Shrubs, Palms, Magnolias, Clematis, New Roses and Hothouse Plants.

TRY THE PERSIAN MULBERRY.

NO SCALE.—I wish particularly to call the attention of Fruit-growers to this fact. I have repeatedly had my nursery examined by experts, and upon no occasion have they found any scale or any indication of scale. The nursery is isolated from orchards, both old and new, and as I take every precaution in importing new varieties to get only clean stock, I feel perfectly warranted in guaranteeing every tree sold by me free from scale and other pests that are proving so disastrous to the fruit interests of the State. SEND FOR CATALOGUE.

E. C. CLOWES, Proprietor, Successor to W. B. WEST.
STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

WHITE SMYRNA FIG (Bulletin Smyrna), one, two and three years old.
WASHINGTON NAVEL ORANGE. Write for prices.

HEADQUARTERS

—FOR—

WHITE ADRIATIC FIGS.

THE LARGEST STOCK OF TREES IN THE STATE.

The Only Fig that Should be Planted for Drying.

ALSO A LARGE STOCK OF OTHER TREES:

Apples, Pears, Peaches, Plums, Prunes, Apricots, Cherries, Nectarines, Olives, Oranges, Lemons, Shade Trees and Ornamental Shrubs, Greenhouse Plants, Roses, Etc.

A Complete Assortment of Rooted Grapes and Cuttings.

ALL TREES WARRANTED FREE FROM SCALE OR APHIS.

☞Catalogue Free. **W. M. WILLIAMS, Fresno, Cal.**

FRUIT TREES! Established 1868. FRUIT TREES!

THOS. MEHERIN,

Agency of CALIFORNIA NURSERY CO., Niles, Alameda Co., Cal.

We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grape Vines, Olives, Small Fruits, Etc.

Ever offered on the Pacific Coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower, and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

AT LOWEST RATES. New Catalogue for 1887 mailed on application.

P. O. Box 2059. THOS. MEHERIN, 516 Battery Street, SAN FRANCISCO, CAL.

100,000 FRUIT TREES.

SPECIAL OFFER!

ROYAL BLENHEIM and HEMSKIRKE APRICOTS, on Peach and Apricot, 3 years, transplanted. Good roots and heads.

FRENCH PRUNES (Petite d'Agen), on Peach, Apricot and Almond, 1, 2 and 3 years all good stock.

BARTLETT PEARS, 1 and 2 years; good stock.

JAPAN (Kelsey) **PLUMS**, on Almond, 1 year.

EARLY CRAWFORD PEACHES, on Almond, 1 year.

HUNGARIAN PRUNE, WASHINGTON and YELLOW EGG PLUMS, on Apricot, 1 year.

YELLOW NEWTON PIPPIN APPLES, 1 year.

☞The above are clean and thrifty, and will be sold at low rates if applied for soon.

TRUMBULL & BEEBE, Seedsmen,

419 and 421 Sansome Street, - - San Francisco, California.



What Mr. Beyer says:

"Please accept my best thanks for the splendid seeds received from your firm. It would be a rather lengthy list if I should name all, but will say that amongst 38 first, and 3 second premiums awarded me at our fairs in Northern Indiana and Southern Michigan, 28 first premiums were for vegetables raised from your seeds. What firm can beat this?" AUGUST BEYER, So. Bend, Ind.

Seed of this quality I am now ready to sell to every one who tills a farm or plants a garden, sending them **FREE** my Vegetable and Flower Seed Catalogue, for 1887. Old customers need not write for it. I catalogue this season the native wild potato. **JAS. J. H. GREGORY**, Seed Grower, Marblehead, Mass.

BEET SEED!

LONG RED MANGEL,
YELLOW GLOBE MANGEL,
SUGAR BEET SEED.

10 Pounds by Express, $2.50

Pure, Fresh, Reliable.

Farmers who keep Cows or Hogs should plant Beets.

☞Send for my **New Circular** on **Beet Culture**, or "How to Plant, Tend, and Feed Mangels," free to all. Also

PURE-BRED POULTRY and EGGS FOR SALE.

☞Poultry Circular and Price List free. Address

W. C. DAMON,
Napa, Cal.

PACIFIC NURSERY,

Lombard Street, between Baker and Lyon, San Francisco.

20,000 OLIVES, PICHOLINE, 2-year old, $150 to $200 per 1000.
2000 OLIVES, MISSION, 2-year old, $35 per 100.
100,000 BLACKBERRIES, LAWSON and KITTITANY and others, $10 per 1000.

Also a large stock of Monterey Cypress, Monterey Pine, Blackwood Acacias, Peppertrees and other desirable Evergreen Fruit and Shade Trees.

For the Gardens I offer Roses in the best and newest varieties, Pink, Camellias, Azaleas, Rhododendrons, Araucarias, Diosmas, Laurustun and other varieties at low prices. F. LUDEMAN.



EVERGREEN TREES, HARDY SHRUBS,

Flowering Plants, Bulbs, Seeds, Etc.

WHOLESALE AND RETAIL.

Nine large Greenhouses well stocked with desirable, healthy plants. **1000** Camellia Japonicas, Hardy Fan Palms, Daphnes, Navel Oranges, Magnolias, Araucarias, Roses, Fuchsias, Pinks, Heliotropes, Daises, Pansies, etc., in endless variety.

BLUE and RED GUMS, PINES, Etc.,

For Forest Planting, in large quantities. CYPRESS for Hedges in fine order, at bedrock prices.

☞Established in 1852. Send for Catalogue.

JAMES HUTCHISON,
Oakland, Cal.

Fine Small Fruits a Specialty

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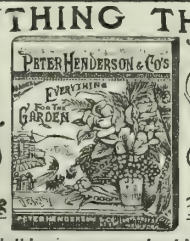
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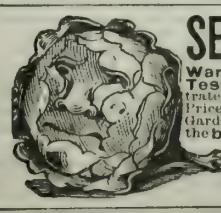
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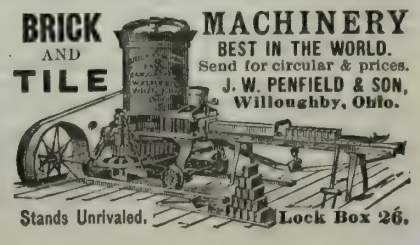
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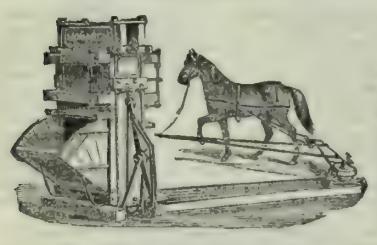


Price's HURRICANE BALING MACHINE.

A Mounted, Top Feed, Double Ender, Capable of Baling 40 tons per day. Record—4 tons in one hour; 19¾ tons in a half day; 1800 bales (of Straw) in one week.

The above record is for last season, the year that the press was invented and first built, and was made by the second machine (size B) that we turned out. This year it is nearly one-quarter faster, because of the following **important improvements: The back and forth movement of the horse lever brings the hay across the stack with a horse fork and puts it on the feeding platform. It also hoists the bales up into a pile 4 or 5 high. The power has been nearly doubled, so that two charges in size B and three to four in size A make a bale. It can be moved one-third easier than before.** The bales are the smoothest and handsomest ever made, and are of even density throughout. Size A of this machine makes the compressed bale 17x22x40 inches, 5 bands; uses 4 men. Size B makes common bales 22x 24x46 inches, 6 bands. The above cut is behind the times and does not show this year's improvements. Send for a fine colored lithograph of this year's press; also large descriptive catalogue.

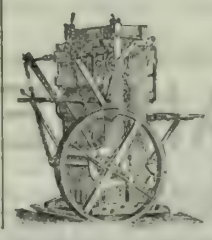
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THE CELEBRATED JUNIOR MONARCH.

Requires No Tramping.

RECORD.—33 tons in one day; 105 tons in 3½ days, and 2000 tons for season, being a daily average of over 20 tons! Bales 22x24x47 inches, with 6 bands. We sold 20 of these presses in Santa Clara Valley alone last season, where the hay had previously been baled by our Price or Petaluma Press, and such was their speed, ease of operation for men, and superiority of the bales, that the old tramping press could scarcely get a job, even at 25 cents per ton less than the Junior Monarch. Made only by us. Send for large catalogue. Price, on board car at San Leandro, **$500.**



The Well-known

PRICE OR PETALUMA PRESS.

This old stand-by was once the leading machine of the Coast, and is the fastest tramping hay press in the world. But the day of the tramping, muzzle-loading hay press is nearly over. It is still sold by us, however, quite largely for use in the hills and remote valleys of the interior, where jobs are small and far apart, and to parties who are not willing to pay the price asked for our rapid self-tramping machines. This press was invented by our Superintendent, Jacob Price, away back in 1868, and notwithstanding that fact, it has been improved almost every year since by him. Those made by us this season are as nearly perfect as machines ever get to be.

Price, on board cars at San Leandro, **$350.**

PRICE HAY PRESS COMPANY, SAN LEANDRO, CAL.

BEST & DRIVER'S IMPROVED COMBINED HARVESTER for 1887

Manufactured at the

DANIEL BEST AGRICULTURAL WORKS, San Leandro, Cal.

STANDARD SIZE

—IS—

14 Feet.

Will make any size that is ordered.



Belt

—AND—

Geared.

The BEST & DRIVER IMPROVED Combined Harvester, without doubt, will be the Leading Machine this season, is the verdict of all those who have inspected it.

IT H S ALUABLE IMPROVEMENTS THAT ARE NOT FOUND IN ANY OTHER COMBINED HARVESTER MANUFACTURED. SPACE WILL NOT ALLOW US TO ENUMERATE HERE; AN INSPECTION OF THE MACHINE WILL CONVINCE YOU.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvestin expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** ttached, which needs no recommendation fromme, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, so that they will not fall to pieces under a hot sun.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how t works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly clean the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

Write for Circulars. For further information, prices, etc., address

DANIEL BEST, San Leandro, Alameda Co., Cal.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 12. SAN FRANCISCO, SATURDAY, MARCH 19, 1887. $3 a Year, in Advance. Single Copies, 10 Cts.

Pomona.

The engraving on this page gives a mere glimpse of a town which is one of the handsomest, most prosperous, and most picturesquely situated and surrounded of Southern California towns. We say it gives a mere glimpse of the town, because it gives no idea of the streets and buildings of the village. In the foreground is one railroad station, and railway stations seldom are situated in the best parts of towns. The illustration is significant, however, for the idea it gives of the situation and environment of Pomona.

The village of Pomona is located in the eastern portion of Los Angeles Co., California, distant by rail 33 miles from the city of Los Angeles, and 50 miles from the Pacific ocean eastward and 30 miles northward. The Sierra Madre range of mountains—average elevation of 9000 feet above the sea, with snow-capped peaks—are distant six miles north, and Mt. San Bernardino (hight 11,000 feet) and Mt. San Jacinto—about the same hight—40 or 50 miles eastward. The lower range, called the San Jose hills, midway between the Sierra Madre Range and the ocean, terminate at the village, and the great valley widens at this point to 25 and 30 miles.



A GLIMPSE OF THE A. & P. R. R., LOOKING NORTH, AT POMONA, LOS ANGELES CO., CAL.

Thus these high mountain ranges protect the valley equally from harsh sea winds and the unpleasant dry winds and sand-storms of the deserts. The altitude of the village is 860 feet above the sea, the valley rising gradually to 2000 feet at the foot of the mountains.

Pomona valley is believed to be one of the mildest and healthiest in Southern California—free from ocean dampness or desert heats. The Atlantic & Pacific railroad, main line from Los Angeles to Albuquerque and all points south and east, runs through the village, and its depots are convenient to the business center of the town.

During the last few years there has been wonderful progress at Pomona, both in the extension and improvement of the town and in the development of the rich agricultural country surrounding it. We have given in former years engravings showing the source of the abundant water supply at Pomona and the method of its distribution. We have also had glimpses of the residences, gardens and orchards in the vicinity. No picture which we have yet seen, however, gives so good an idea of the mountainous environment of the town. The engraving is one of our new photographotypes made for B. A. Stephens, publisher of *Pomona Progress*, a local newspaper of much enterprise and spirit. By Mr Stephens' permission we give the first impression of the engraving in the columns of the Rural Press.

Some of the New Laws.

We propose as speedily as possible to give the full text of all the laws enacted at the recent session of the Legislature which have a bearing upon our agricultural industry and interests. The two bills on irrigation, one by Wright, the other by Vincent, are looked upon as preparing the way for all the legislation which we need on this most important method. We shall not attempt to summarize these measures, but await the full text.

The new law increases the powers of the Forestry Commission, empowering its officers to make arrests, and appropriating $29,500 for the use of the commissioners. The enlargement of the authority of the board is granted with a view to rendering its action the more effective in preventing forest fires and for other purposes.

Another enactment aims to prevent the adulteration or sophistication of California wines, or the using of coloring matter likely to injure the health of consumers, under a penalty of $250 fine for each offense. The bill also provides that the Secretary of State shall furnish, free of charge, "pure wine" labels or stamps to be placed by manufacturers over the bungs of barrels and the corks of bottles. Another law legalizes the mortgaging of wine and brandy in the cask, which will render it possible for manufacturers to retain their product in their possession until it acquires increased value through age, instead of being compelled to dispose of it immediately in order to meet current expenses. Another law appropriates $5000 to enable the Regents of the University to establish experimental stations; to distribute gratis vines and cuttings, with instructions regarding their propagation, and to give students instructions. One of the stations shall be established in the Coast Range and another on the mineral belt of the State.

One of the last acts of the Legislature was the passage of a new law concerning the repression of injurious insects. This bill among other things provides for the employing of two inspectors of fruit pests, one to have charge of the southern counties and the other the central and northern counties. Other details of the new enactment will be given as soon as we can get a copy of the law. The State Boards of Agriculture, of Viticulture and of Silk culture were also provided for by new appropriations.

In the matter of boundaries, there is an Act to correct a boundary survey near Lake Tahoe, by which Nevada gained a strip of California nearly a mile wide. Also a law changing the boundaries of San Benito county in such a manner as to give it 500 acres of Merced and a slice of Fresno, both the last-named counties agreeing.

There was a new agricultural district, No. 18, formed from Mono, Inyo and Alpine counties.

Another law prescribes that roadmasters shall be elected every two years, instead of appointed, as heretofore.

Land Commissioner Sparks pronounces the story of the sale of 60,000,000 acres of land to a New York syndicate a myth.

What the Fairs Tell About California.

Notably valuable service has been rendered by the different winter fairs or citrus fairs which have been held during the last few months in Central California and previously in Southern California. A study of the exhibits has often given a "pointer" to parties who have been seeking to find situations adapted to certain things. "By their fruits shall ye know them" is an excellent maxim, and it is not less true in determining the productive value and suitability of special locations in this State. We know of investments made and special enterprises started upon the information gained from the examination of fair exhibits and conversation with the practical men who have brought their productions for display at the fairs. Next to personal inspection of fairs is the chance to read about them, and for this reason we give so much space to what we endeavor to make truthful and moderate descriptions of the exhibits at the San Jose Fair.

California is a State of most varied resources and adaptations. There are fruits for which the fame of California is world-wide. There are also most important live-stock interests. Herds of all the popular breeds of improved stock can be seen. Excellent poultry establishments are in profitable operation. Horse-breeding is also a specialty, as, for instance, the splendid Palo Alto farm of Senator Stanford, in San Mateo county. This breeding farm, which is perhaps unsurpassed in the world, is supported by a host of more modest horse farms which are making their owners prosperous and contented. Grain-growing and all other branches of agriculture, the dairy, the swineyard, the garden, are also well represented. All these matters are discussed from week to week in the Rural Press.

Chief Viticultural Officer.—At the meeting of the Viticultural Commission in this city, the resignation of C. A. Wetmore, as chief officer, was accepted, and John H. Wheeler was chosen to fill the vacancy. Mr. Wheeler has served for several years as secretary of the Commission. Clarence J. Wetmore was selected to fill the secretaryship. The ex-chief officer was given a banquet and a beautiful service in the name of the California grape-growers, as a testimonial of his services in the grape interests of the State.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

The Season and the Santa Clara Valley.

EDITORS PRESS:—Once more I gladly take the opportunity of sending you a few items from this the garden valley of the world. The fall and winter months have been very warm and pleasant, in fact so spring-like and beautiful was the weather that the croakers came out one by one, looked cautiously at the bright, clear sky and verdant earth and began to whisper knowingly to each other: "A dry year, everything goes to prove it; just such a year as 1864. Barley will be worth five cents a pound. There is no hay, flour or wheat in the State, no fruit of any kind. Why, sir, the trees will not leaf out such a dry year as this is going to be. Starvation stares us all in the face. We shall have to live on beans, bacon and cornbread. Don't sow any grain; sell your land and stock while you can, for after a little you cannot give them away."

Such croakings as these were heard by the newcomers on every hand, told to them slyly and in the most confidential manner. What was the result? The timid were frightened and the strong discouraged. But, alas! for the croakers, what a change. On the 3d day of February the sunny sky was overcast, and gentle, welcome rain began to fall, steadily increasing till the thirsty earth was full and every little stream and rivulet went merrily on its way filled to overflowing. And this was not all; the elements combined with us to treat our Eastern friends to one of those rare, grand sights, a three days' California snowstorm.

Think of it! The thermometer at 34°; snow from 4 to 6 inches deep; roses, lilies, laurestinus and many other flowers in full bloom, while the potato and tomato vines were bending beneath their snowy burdens. The pines, peppers, olives and other evergreen trees were a strange sight to behold. But we must not forget the beautiful orange, lime and lemon trees, laden with their loads of rich golden fruit and snowy whiteness. It was a grand sight to behold and one that will not soon be forgotten.

But where, oh where, is the croaker? He has gone into unexpectedness and is now in the crowded ranks of those who say "I told you so." We are indeed blest. We have everything to be thankful for. If we do our part diligently and cheerfully, the good Lord will always do His part; for He has said "there shall be a seedtime and a harvest."

Our first Central Citrus Fair was a grand success. I think that it surprised the old settlers almost as much as it did our Eastern visitors. I was there all the time during the fair, and it gave me great pleasure and satisfaction to show the strangers over our beautiful hall with its wonderful and varied productions. There were a great many Eastern fruit dealers at the fair, and they told me that "for fine canned and evaporated fruits, English walnuts, almonds, olive oil and persimmons, Santa Clara county had no equal." They also said that, with proper care in the selection of varieties and cultivation, our oranges, limes and lemons would soon be among the best.

The "boom" has reached us and is sweeping over the county like an avalanche. The real estate market is very brisk and the country is full of buyers, and they are of the best and most desirable classes of people.

We have had over 15 inches of rain since Feb. 3d, and the prospects are very bright for bountiful crops of everything, especially fruit. We are all done pruning and are well along with plowing. A great many fruit trees of undesirable varieties have been grafted to the best drying and canning kinds, and the result will be that our orchard-men will soon be independent and happy. A. N. VAN FLEET.

Fair View Farm, Los Gatos.

ENTOMOLOGICAL.

Danger of Importing New Pests.

The following communication from W. G. Klee, State Inspector of Fruit Pests, is addressed to the *Patron* under date of the 2d inst.: During the last month it has been evident to my mind that we stand considerable danger of importing new scale insects to this State from China and Japan, no less than two kinds of such insects having been found on oranges brought from Japan. In case of a large shipment of orange trees sent from Japan I discovered trace of a red orange scale, probably *Aspidotus aurantii*, and had the whole lot of trees disinfected. Before I learnt of the existence of this shipment, however, trees had been sold, which thus may scatter infection. A quarantine guardian was appointed by me to look after the infected shipments; nevertheless, in many cases no information may reach us. The other day an orange from Japan, purchased in the California market, was found to be infected with the oyster shell scale, *Mytilaspis citricola*, a species *not known* to be in this State, but having proved very dangerous in Florida. Trees imported from abroad should be thoroughly scrutinized, and if anything the least suspicious is seen on them, the specimen should be forwarded, carefully wrapped, to this office. In case of importers, it is their duty to notify this office as soon as shipments arrive. As a matter of fact, it is an impossibility for one or two men to prevent the introduction of injurious insects without the closest co-operation with the persons representing the fruit interests. The establishment of local horticultural societies is an immense help in the matter, as they may not only help this office in pointing out infected stock, but members may individually agitate the matter and educate public opinion to the necessity of the greatest care being taken to suppress all kinds of insect pests. For every new pest we receive from abroad we think we have received the worst, and that there are not any more to come. No greater mistake; there are many very dangerous insects we might get yet. Let us all guard against these, and not permit anything suspicious to go past unnoticed.

THE FIELD.

The New Game Law.

The game law of the State, as just enacted, is formed by amending Sections 626, 631 and 636 of the Penal Code, and reads as follows:

SECTION 1. Section 626 of an Act entitled "An Act to establish a Penal Code," approved February 14, 1872, is hereby amended so as to read as follows: 626. Every person who, in the State of California, between the 1st day of March and the 10th day of September, in each year, hunts, pursues, takes, kills or destroys quail, partridges, or grouse, or rail, is guilty of a misdemeanor. Every person who, in any of the counties of this State, at any time takes, gathers, or destroys the eggs of any quail, partridge, or grouse, is guilty of a misdemeanor. Every person who, in this State, between the 1st day of January and the 1st day of June, in each year, hunts, pursues, takes, kills or destroys doves, is guilty of a misdemeanor. Every person who, between the 15th day of December, in each year, and the 1st day of July in the following year, hunts, pursues, takes, kills, or destroys any male antelope, deer or buck, is guilty of a misdemeanor. Every person in the State of California who has in his possession any hides or any skins of deer, elk, antelope, or mountain sheep, killed between the 15th day of December and the 1st day of July, is guilty of a misdemeanor. Every person who shall at any time, in the State of California, hunt, pursue, take, kill or destroy any female antelope, elk, mountain sheep, female deer, or doe, shall be guilty of a misdemeanor. Every person who shall at any time hunt, pursue, take, kill, or destroy any spotted fawn, is guilty of a misdemeanor. Every person who shall take, kill, or destroy any of the animals mentioned in this section, at any time, unless the carcass of such animal is used or presented by the person taking or slaying it, or is sold for food, is guilty of a misdemeanor. Every person who shall buy, sell, offer, or expose for sale, transport, or have in his possession any deer, deerskin or hide, from which evidence of sex has been removed, or any of the aforesaid game at a time when it is unlawful to kill the same provided by this and subsequent sections, is guilty of a misdemeanor.

SEC. 2. Section 631 of the same Act is hereby amended so as to read as follows: 631. Every person who shall at any time net or pound any quail, partridge or grouse, and any person who shall sell, buy, transport or give away, or offer or expose for sale, or have in his possession, any quail, partridge or grouse that have been snared, captured, or taken in by means of any net or pound, is guilty of a misdemeanor. Proof of possession of any quail, partridge or grouse, which shall not show evidence of having been taken by means of other than a net or pound, shall be *prima facie* evidence in any prosecution for a violation of the provisions of this section that the person in whose possession such quail, partridge or grouse is found took, killed or destroyed the same by means of a net or pound.

SEC. 3. Section 636 of the same Act is hereby amended so as to read as follows: 636. Every person who shall set, use or continue, or who shall assist in setting, using or continuing, any pound, weir, set net, trap, or any other fixed or permanent contrivance for catching fish, in the waters of this State, is guilty of a misdemeanor. Every person who shall cast, extend or set any seine or net of any kind for the catching of fish in any river, stream or slough of this State, which shall extend more than one-third across the width of said river, stream or slough at the time and place of such fishing, is guilty of a misdemeanor. Every person who shall cast, extend, set, use or continue, or who shall assist in casting, extending, using or continuing, "Chinese sturgeon lines," or "Chinese shrimp or bag nets," or lines or nets of similar character, for the catching of fish in the waters of this State, is guilty of a misdemeanor. Every person who, by seine or other means, shall catch the young fish of any species, and who shall not return the same to the water immediately and alive, or shall sell or offer for sale any such fish, fresh or dried, is guilty of a misdemeanor. Every person convicted of a violation of any of the provisions of this chapter shall be punished by fine of not less than $50 and not more than $300, or imprisonment in the county jail of the county where the offense was committed for not less than 30 days nor more than six months, or by both such fine and imprisonment. One-third of all moneys collected for fines for violation of the provisions of this chapter to be paid to informer, one-third to the District Attorney of the county in which the action is prosecuted, and one-third to the Fish Commissioners' Fund of the State of California. Nothing in this chapter shall be construed to prohibit the United States Fish Commissioners or the Fish Commissioners of the State of California from taking such fish as they shall deem necessary for the purpose of artificial hatching, nor at any time. It shall not be lawful for any person to buy or sell, or offer or expose for sale, within this State, any kind of trout (except brook trout) less than eight inches in length. Any person violating any of the provisions of this section is guilty of a misdemeanor. The Board of Supervisors of the several counties of this State are authorized, by ordinance duly passed and published, to change the beginning or ending of the close season named in Section 626 of this Code, so as to make the same conform to the needs of their respective counties, whenever in their judgment they deem the same advisable.

SEC. 4. This Act shall take effect and be in force from and after its passage.

State Board of Agriculture.

The State Board of Agriculture met at the pavilion last evening, the following members present: Directors Finigan, Singletery, Shippee, Boggs, Chase, Green, Shafter and Hancock.

The report for the year ending February 1st was read and adopted. The financial statement shows the net gain for the year to be $7770.40. The net liabilities February 1, 1886, were $30,346.88; and the net liabilities February 1, 1887, were $22,576.48. Net gain $7770.40.

L. U. Shippee was elected president for the ensuing year; H. M. La Rue, superintendent of pavilion; G. W. Hancock, superintendent of park.

The date for the State Fair of 1887 was fixed to commence September 12th, and continue two weeks; racing nine days.

The following directors were named on the speed program committee to report April 20th: Messrs. Rose, Finigan, Chase, Green, Singletery, and President Shippee.

On premium list, La Rue, Hancock, Green, Shafter and Boggs.

The usual two, three and four-year-old trotting stakes were ordered to be given, entries closing April 15th. A special stake for the three-year-olds that were winners as two-year-olds last year was also ordered to be given. These colts are Sable Wilkes, Soudan, Shamrock and Eda.

The board resolved to open to competition the pool-selling and book-making privileges. The custom of selling Paris mutuals on heats was unanimously abolished. Adjourned to April 20th.—*Record-Union.*

FLORICULTURE.

A Ventura Seed Farm.

We have often alluded to the possibility of paying business in this State in seed-growing. There has indeed been quite a little done in this direction by different parties in different parts of the State, and the chance for success in this line to those who have plenty of skill and patience is great. Those who believe there is a field for women in our horticulture will be pleased to learn that perhaps the most prominent seed-grower, measured by the number of varieties of high-class seeds produced, is a woman. The Ventura *Republican*, of last week, gives this very interesting sketch of her work:

One afternoon of this week a *Republican* reporter called at the residence of Mrs. Theodosia B. Shepherd, on East Main street, San Buena Ventura, and was shown through her magnificent flower and seed gardens and greenhouses. The gardens comprise a lot of ground 200 feet front by 400 deep and are surrounded by rows of palm and pepper trees and hedges of heliotropes and passion flowers. Three years ago this garden was a barley field; now it is a perfect paradise that yields its owner $2000 a year, and in three years that sum promises to be more than doubled.

The first place shown us was the fernhouse, where the most rare and tender varieties, including the stag's horn, harefoot, sandwich, sword, *davallia* tree, asparagus, *plumosus* and *jai l'elegant* are growing in the open air, the only shelter being a lath arbor, covered with *camp sidium* and *mandavilla* vines. In one corner of the fernery is a *begonia gilsonia* plant, measuring five feet across the top and the stalk seven inches in circumference. The lady has 30 varieties of begonias, and from one *begonia rubra* raised $4 worth of seed, and she was compelled to fertilize each flower. On one side of this house are 20 varieties of cactus, embracing five varieties of night-blooming cereus that will soon flower.

From here we proceeded to the greenhouse, and on the way were shown 18 varieties of violets, 100 of fuchsias and 50 of carnation pinks. In the house are 10 varieties of *primulas*, or Chinese primroses, from which she is now growing seeds. Mrs. Shepherd has succeeded, by chance, in obtaining a new variety of primrose. It is from a seed dropped by a Chinese variety, and at first the leaves were a dark green, but are now variegated, the top being cream-colored and the under side pink-tinted. We were also shown 25 varieties of Lady Washington geraniums, embracing six Regals.

Next came the bulbs, of which she has 30,000 callas; a freesia bed of 9000 bulbs; hyacinth and narcissus bulbs; another, also, of 28,000, of five varieties, worth at wholesale $1000. These are grown in a space of about one-twentieth of the garden. Also 1000 roots of the *Canna ehemani*, all sold to an Eastern florist.

On the west side of the garden we were shown three varieties of the *Tacsonia*, the aristocrat of the *passiflora* family—the handsomest flower, we think, in the grounds; also a good-sized camphor tree, which seems to be perfectly at home in this climate.

We were next shown a magnificent bed containing an infinite variety of the *verbena grandiflora*—a new and high-toned verbena—a recent introduction. The trusses of these flowers are nine inches in circumference and the individual flowers cover a 25-cent piece. The seeds of this flower are grown by Mrs. Shepherd for a New York firm, who are the first to offer seeds of this valuable novelty for sale.

One of the greatest attractions in the garden during the past year, Mrs. Shepherd informed us, has been her "stocks," or gillyflowers. These are in all the more delicate as well as the richer shades, and have been blooming for the past eight months. These had been cut back about two weeks ago, and are now coming on with a new bloom. A few of the plants are still in beauty, one with magnificent double flesh-colored flowers, measuring two inches across. Eastern seedsmen purchase their stock seeds of European growers, paying a high price for pot-grown seeds, and buy with great care, it being a heavy loss to them if the flowers are inferior. That California is the natural home of the stock, and that a superior quality of seed can be raised here from open-grown plants, is beyond question. Mrs. Shepherd experienced great difficulty in introducing these seeds to Eastern growers, who at first gave her but little attention, having no confidence in outdoor grown seed, recommended by an unknown grower in California. But knowing it was only a question of time and perseverance, and that in the end they would buy, this energetic and enterprising business woman continued writing and sending flowers, and as a last resort sent photographs. Now she has no trouble in disposing of all that can be raised. The lady believes that in a few years Eastern dealers will buy all their seeds of stocks, as well as many other varieties of seeds, in Southern California.

Her specialties are bulbs of *Canna Ehemani*, calla lilies, seeds of smilax, blue and white *Cobea scandens*, single dahlias, stocks apple geranium and double monthly carnations, though she grows an endless variety of other seeds and finds no difficulty in disposing of all to various large Eastern firms, as well as to small ones, and retail customers.

The choice collection of carnations, which in about six weeks will be in full flower, will be one of the grandest sights that can be pictured by florists. No other garden in California has such a large collection, there being 400 plants, embracing 50 varieties.

Peter Henderson, the veteran seedsman and florist, in a letter to Mrs. Shepherd five years ago (in which he encouraged her to grow seeds for sale), writes: "California will, I am certain, 50 years from now, grow seeds for the world. It has all the conditions of soil and climate for seed-growing." We go further and assert that in 25 years Southern California will grow seeds for the world.

For seeds and bulbs the coast climate is the most suitable, as inland everything becomes so dry and parched, the summers being much warmer and the winters more severe. There is no frost severe enough in Southern California to injure tender plants near the sea.

In the near future Mrs. Shepherd proposes to purchase about ten acres of ground and plant it to choice bulbs and seeds for the Eastern trade, increasing her varieties and stock. She intends making a specialty of choice *amaryllis* and *cyclamen* bulbs and raising them in large quantities. Her present site, a choice piece of ground on Main street, which will soon be too small for her rapidly growing business, is weekly advancing in value, and will soon be too valuable for a seed garden.

Mrs. Shepherd does quite a large business in the way of potted plants and cuttings, all of which are guaranteed true to name.

The lady is an enthusiast in her work, and enjoys nothing so much as work among her flowers. It has always been a passion with her. Three years ago she commenced work on her garden as a means of bettering her health, outdoor exercise being recommended, and now says that if she had but to work among her flowers she would never be ill. Her first conservatory was a very tiny affair, costing $2.50, from which has sprung what will one day be the best paying industry in Southern California.

The *American Florist* says that "$4,000,000 worth of flower seeds were imported into the United States from Europe last year." There must have been a like amount invested in bulbs. With but few exceptions these could be grown in the open air in Southern California.

Mrs. Shepherd is assisted in her work by Mr.

Samuel Cole, who is as enthusiastic as it is possible to be. Her children also take great pride in the garden. The younger, 10 years old, can show the entire gardens to strangers and converse intelligently concerning them.

Mrs. Theodosia B. Shepherd, the pioneer seed-grower of Southern California, is a most energetic woman and is commended for her work by all. Her gardens are the pride of San Buena Ventura. The gardens are open for the inspection of visitors and strangers especially.

AGRICULTURAL SCIENCE.

The New Experiment Station Law.

The following is the full text of the Experiment Station bill as enacted by Congress and approved by the President:

An Act to establish agricultural experiment stations in connection with the colleges established in the several States under the Provisions of an Act approved July 2, 1862, and of the Acts supplementary thereto.

SECTION 1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science, there shall be established, under direction of the college or colleges, or agricultural department of colleges, in each State or Territory established, or which may hereafter be established, in accordance with the provisions of an Act approved July 2, 1862, entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said Act, a department to be known and designated as an "agricultural experiment station:" Provided, that in any State or Territory in which two such colleges have been or may be so established, the appropriation hereinafter made to such State or Territory shall be equally divided between such colleges, unless the Legislature of such State or Territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches, or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States Commissioner of Agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate from time to time such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this Act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the Governor of the State or Territory in which it is located, a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said Commissioner of Agriculture, and to the Secretary of the Treasury of the United States.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months; one copy of which shall be sent to each newspaper in the States or Territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, and as far as the means of the station will permit. Such bulletins or reports, and the annual reports of said stations, shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the Postmaster-General may from time to time prescribe.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of $15,000 is hereby appropriated to each State, to be specially provided for by Congress in the appropriations from year to year, and to each Territory entitled under the provisions of Section eight of this Act, out of any money in the treasury proceeding from the sales of public lands, to be paid in equal quarterly payments on the first day of January, April, July and October in each year, to the Treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, 1887: Provided, however, that out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

SEC. 6. That whenever it shall appear to the Secretary of the Treasury, from an annual statement of receipts and expenditures of any of said stations, that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

SEC. 7. That nothing in this Act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the States or Territories in which they are respectively located.

SEC. 8. That in States having colleges entitled under this section to the benefits of this Act, and having also agricultural experiment stations established by law separate from said colleges, such States shall be authorized to apply such benefits to experiments at stations so established, by such States; and in case any State shall have established, under the provisions of said Act of July 2, aforesaid, an agricultural department or experimental station in connection with any university, college, or institution not distinctively an agricultural college or school, and such State shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the Legislature of such State may apply in whole or in part the appropriation by this Act made, to such separate agricultural college or school; and no Legislature shall, by contract, express or implied, disable itself from so doing.

SEC. 9. That the grants of moneys authorized by this Act are made subject to the legislative assent of the several States and Territories to the purpose of said grants: Provided, that payments of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of its Legislature meeting next after the passage of this Act shall be made upon the assent of the Governor thereof duly certified to the Secretary of the Treasury.

SEC. 10. Nothing in this Act shall be held or construed as binding the United States to continue any payments from the treasury to any or all the States or institutions mentioned in this Act, but Congress may, at any time, amend, suspend, or repeal any or all of the provisions of this Act.

Has There Been Money Appropriated?

A dispatch from Washington seems to raise the question whether the money has really been appropriated:

WASHINGTON, March 9.—The agricultural bureau is considerably troubled about the terms of the bill passed, near the close of the last session, establishing agricultural experiment stations. The bill, after defining these stations, provides: "The sum of $15,000 is hereby appropriated to each State, to be specially provided for by Congress in the appropriations from year to year from the sale of public lands, the first payment to be made on the first day of October, 1887." This phrase was held by the framers of the bill to be an appropriating clause, but the question has arisen whether it does really carry any money with it. The agricultural department is already in receipt of letters from various State agricultural colleges, asking questions concerning the operation of the bill, and when the money would be available, and it is in doubt as to what reply to make. It was fully intended to make the first appropriation out of any money in the treasury not otherwise appropriated, but the ambiguous language of the clause quoted would seem to stop all action until Congress can make provision from the public lands funds as above provided.

It will probably require a little time to settle the point thus raised.

POULTRY YARD.

French Experiments in Feeding Poultry.

Professor Long prepares for the *Mark Lane Express* a translation of an account in a recent French publication, *Le Dictionnaire d'Agriculture*, concerning experiments with poultry-feeding. This work was begun by the late M. Barral, and is now being continued by other eminent French writers and investigators.

Comparatively few experiments have been made in poultry-feeding, and M. Barral, recognizing the fact, lays down as a rule that in every case the food given should be in proportion to the weight of the birds, taking into consideration their active nature and such accessory products as eggs and feathers. Generally speaking, an average hen will consume three ounces of grain per day, or over a bushel in the course of the year, but the weight of gallinaceous birds varies considerably, and hence no really definite idea can be formed of what they are capable of consuming to the best advantage. It is advisable to supply a mixture of foods, such as oats, buckwheat (where it can be cheaply obtained), and maize. Boiled potatoes are also beneficial, as well as various meals, herbs, salads, and cooked or uncooked vegetables. Perhaps the best system to adopt, especially where a number of fowls are kept, is to change the diet from time to time, diminishing or increasing the same as experience may suggest. Where, however, it is necessary to fatten poultry for table purposes, they should be given as much food as they can possibly consume without harm, but it should consist of highly nitrogenous and farinaceous substances.

As no direct and scientific determination of the quantity of food consumed by poultry had previously been made, M. Barral, with the assistance of M. Lemoine, a distinguished French poultry breeder, with whom I have had the pleasure of acting as judge, undertook a series of experiments with this end in view. Four lots of birds were selected, these consisting of a cock and three hens of the Crevecœur race; a cock and four hens of the La Fleche race; a cock and three hens of the Houdan race; and lastly, a cock and four hens of the Dorking variety. Particulars of the food given and consumed were taken daily, and each bird was weighed at the beginning and at the end of the experiments, which lasted six days. The eggs were also weighed and the food analyzed. The particulars published by M. Barral in several tables in his dictionary are of very considerable interest and value, and I consequently collect the leading figures together, giving, as they do, a good idea of the work he has done, and the results at which he has arrived. These figures are shown in the two following tables:

	Crevecœur, lb. oz.	La Fleche, lb. oz.	Houdan, lb. oz.	Dorking, lb. oz.
Weight at com'encement of experi'ts..	23 8	25 0	22 1	29 8
Weight at end of experiments.....	24 10	28 3	21 10	32 2
Av. weight at same periods respect'ly	5 11	5 8	5 7	5 14
	6 4	5 10	5 4	6 5

	Crevecœur.	La Fleche	Houdan.	Dorking.
Weight of food in normal state, per day, ozs.....	4½	6	4⅓	6⅓
Weight of food in a dry state, per day, ozs.....	3	3½	3	4
Nitrogen in food, grammes	1 93	1.94	1.65	2.43
Number of eggs.....	14	7	4	21
Weight of eggs, ozs. & drs.	2 2	2 3	2 3	2 0

In giving the above weights in grammes it is more convenient to follow the plan adopted by the French writer, merely observing that a gramme, in England, is about half a dram.

The food showed the following result upon analysis:

	Water, per cent.	Nitrogen, per cent.
Wheat.....	16.79	1.90
Oats.....	14 67	1.96
Buckwheat.....	18 94	1.77
Rice (cooked).....	32.59	0.71
Soft food (barley meal and potatoes).....	57.76	0.96

The three first-named foods were mixed in equal proportions. The nitrogenous matter contained in the ration of the Houdans was very little, and this may account for the small amount of increase of live weight during the experiments, whereas, in the case of the Dorking, it was very considerable, with a corresponding increase of flesh. The egg production, too, shows a similar result. It should be remarked, with reference to the third table, that the nitrogen indicates what is generally known as the nitrogenous food, which furnishes the elements for the formation of fiber and gelatinous substance, as distinct from the fat of birds and animals. The fowl being almost essentially a fleshy bird and possessing very little fat, it needs a larger proportion of the nitrogenous elements than the ordinary animals of the farm for the formation of its flesh and consequent increase in live weight.

In referring to turkeys, M. Barral remarks that, after having been given the run of a good pasture, it is necessary to have recourse to very nourishing and stimulating foods, and a mixture is recommended composed of bread-crumbs, boiled eggs, onions, nettles, a thousand-leaved grass (evidently yarrow), and drained curd. I have frequently advised the use of curd as a valuable food for chickens. If made from new milk it contains a large percentage of fat—really butter—the principal ingredient being a nitrogenous and albuminous substance, which is the chief element in cheese. If, however, it is made from skim milk, almost the whole of the fat contained in curd made from new milk is absent, so that skimmed-milk curd, which is one of the cheapest foods that can be given where milk is produced, is of especial value for chickens, and indeed for fowls, as it is highly nutritious, easily digested and stimulating.

Ducks, as everybody knows, are naturally fond of water, in which they find no small amount of their food; but in fattening it is essential to specially feed them by hand upon a diet consisting of mixed grains and animal food.

In France, where geese are very largely bred, the birds derive the principal portion of their food from the fields and pastures, to which they are driven in flocks, like sheep. They should also be supplied with a mixture of barley and buckwheat meal. When put up to fatten, oats and curds should be given, followed by barley meal, buckwheat meal, maize meal and pea meal, linseed, with herbs of a stimulating and aromatic nature. After this they may be hand-fed or crammed with boluses of meal. It may be observed that buckwheat meal is especially adapted for fattening poultry, containing, as it does, a large percentage of oil, which is obtained through its means at a much cheaper rate than fatty food of almost any other description. Buckwheat is not used with us to the extent it should be, and this in a great measure is probably owing to its cost; but it should be remembered that corn dealers who are only applied to for small quantities are obliged to charge a high price for it, as it would not pay them to keep a considerable supply on hand merely to meet an insignificant demand.

It is quite certain that the subject of feeding poultry to ascertain the actual cost of keeping the birds has not been fully understood, nor has any attempt been made to estimate it upon a practical basis. If we were made fully aware of the quantity of food which poultry consumed in the course of a year, we should, perhaps, be more willing to take greater trouble with them, although some persons who believe that they are making a large profit would undoubtedly be greatly deceived, for there can be no question that, especially upon a farm where food is at hand without purchasing, they consume very considerable quantities, often more than is returned by the sale of their eggs. These same minute details, however, also show how important is the manure which is produced, and that if an attempt is to be made to arrive at an accurate profit and loss account, it should not only be carefully collected and saved, but its intrinsic value actually determined.

FORESTRY.

Information Wanted on Tree-Growing.

EDITORS PRESS:—I have looked over my RURALS of the past six years—at least over the indices—and can find very little of the kind of information I refer to. An article, or series of articles, giving information on the following and other points would do a great deal toward solving the forestry question. Take such trees as the eucalypti, peppers, various palms, acacias, etc., trees that every one would like to grow if they knew how, and tell how in the first place to prepare the seed, whether to soak, scald or plant dry. You might begin with telling how to secure the seed, for that matter, of such trees as the palms, peppers and pines, and possibly the eucalypti, though the imported seed of the latter is cheaper and better, they say. Should the pepper seed be picked from the tree or picked up from the ground after falling? Should they be planted as soon as they are ripe or full, or should they be kept for a time to season? Can the seed of a dried date be planted after eating the date, or should it be kept for a time, etc.? Then tell us how to prepare the beds or boxes for the various seeds, how much sand and manure to use, etc.; the character of soil.

Then the place to put the boxes or beds. In the sun or in the shade or in a partial shade? Then tell how to plant, how deep to plant or cover, how far apart, etc.; how much and how often to water and how to do it. Should the date seed be planted with the germ end up or down? When the seeds sprout and come up, tell us how, when necessary, to transplant, at what age or size, etc.

You may possibly arrive at an idea as to what I am driving at from the foregoing jumble. Really there are thousands of people in the State who would like to raise a few hundreds or thousands of trees if some one would only tell them how to do it properly. Many try to raise a few boxes of "peppers" or "gums," and having poor success give it up, and maybe buy a box or two from some nurseryman, or maybe they go without, "not having the dollars to spare just now."

Peppers in the box only a few inches high are worth seven cents each here now, and those two years old, four to six feet high, are worth from 25 to 50 cents each, and larger trees up to 75 cents or $1 each. Pines are worth about 75 cents each for little fellows that are only a few feet high. Palms are over a dollar for those about a foot or so high. How many trees can a man afford to set out at that rate? Certainly only a few unless he is very well off.

It may be said that it is cheaper and better to buy of the nurserymen, who understand how to raise the plants, than it is to experiment with them ourselves; but I think there are plenty of people of sufficient intelligence and assiduity to raise great quantities of fine trees if they only knew how easily and economically it could be done. Tell them. Tree-planting will not attain to the proportions it should if we have to depend on the nurseries. We can't afford to plant what we should if we do.

Many of us think we know how to raise gums, peppers, etc., but for the lack of some one little point or two we often fail. It is the little points that we want. The eucalyptus seed, as I understand it, should be covered with only about a quarter of an inch of sand to insure a good growth; but if, in watering, the water is sprinkled on faster than the soil will take it in, the seed is apt to float to the surface, and the result is a very poor stand and considerable discouragement, which may result in the loss to the State of many fine trees. I suppose, in directions of growing trees, certain classes might be grouped generally. S. C.

Los Angeles.

[These points are good ones. Perhaps we have been giving too much time to the minutiæ of the fruit business and too little to forestry. Now, if all our readers who have succeeded with any kind of forest or timber trees will write out their experience minutely, whether they have grown one kind of tree or many, we shall soon have a compendium of information like that which our correspondent asks for. Perhaps, too, our State Board of Forestry will take all this information, and other which they may give themselves, and publish a hand-book especially relating to California practice which can be distributed free to all who wish it. Who can doubt that such a work would increase the number of trees in the State? Who will be first to contribute to this end by sending us a letter concerning the best way to propagate and establish any kind of a timber or forest tree?—EDS. PRESS.]

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Many grave and important questions are coming to the front for settlement in America. With our great and rapidly growing population; our vast extent of territory; our many varied and often conflicting interests; our population from all nations, and of all creeds known of men; with new political parties being formed; new combinations of labor and other organizations; new theories being advanced, it is of the utmost importance that Patrons of Husbandry set a careful watch upon their every word and act. The Grange has always taken high ground, has stood aloof from the wild schemes of dreamers and extremists. It has made no "entangling alliances," and after 20 years of existence it has made a record that no Patron or patriot need feel ashamed of. Its record is more and more winning the respect of all good citizens. Its respectful requests were never more quickly heeded in legislative halls than now. Its lines of action have all been carefully considered by the National and State Granges, and thus unity of purpose and deserved success have come. But there is danger in success as well as in adversity. The influence, support and recognition of this great organization is now wished for, and often courted by others who would have this giant on their side. Let us "beware of the flatterer." No Grange should send "official" delegates to political or other conventions, in which the good name and fame of our Order might be injured, without at least having the sanction of their State Grange or of the National Grange. As *individuals*, as *farmers*, as *citizens*, each can exercise the right of a freeman; but in our *organized* capacity we should be careful to move only in an organized way and under direction of the organization.

A voice in the United States Senate, a few days before adjournment, said "That the demands of the farmers are just and proper must be apparent, and that they will be complied with is just as certain as that the Government shall endure and the farmers of the country continue to appreciate the justice of their claims and their undoubted power to enforce them." Let us appreciate our power and organize to enforce our claims.

The Interstate Commerce bill prohibits railroads from issuing free passes to any outside their own officials and employes. As far back as 1873 a director of the Pennsylvania railroad asserted that the free passes distributed by that corporation in one year represented $500,000. Charles Francis Adams, president of the Union Pacific railroad, within a year told a committee of the United States Senate that the losses incurred by the company which he represented, through the free pass abuse, amounted to $2000 a day, and that a reduction of 10 per cent in the passenger rates could be made if free passes were abolished. No one doubts but the distribution of free passes among legislators has been a fruitful source of "favorable" legislation for corporations.

More than *twenty millions of acres* of land in the United States are now owned by aliens or foreign landlords, most of whom do not even live among us. Many of them hate our free institutions. The PACIFIC RURAL PRESS says: [We refrain from repeating what was said in our issue of Oct. 23, 1886, under title "Alien Land-Owners."—EDS. PRESS.] The Grange has taken a decided stand against foreign landlords.

"To make this, the only farmer's organization, a success, the minds of the people must be prepared by a proper system of education to receive and comprehend fully the aims, objects and purposes of the Order."—*Daniel Morgan, Master Louisiana State Grange.*

At a late meeting of the Hillsboro', N. H., Pomona Grange, it was the universal opinion of the members who discussed the question of past and future rewards of agriculture, that with the increased opportunities for education among farmers, the improved machinery by which to lessen manual labor, and a powerful organization like the Grange to protect their interests in Congress and our State Legislatures, the profits from farming must be greater in the years to come.

Suggestions for the Good of the Order.—"That all members be made to understand that the Order is one that will do every member good, and that the better they appreciate it, and avail themselves of its privileges, the more good will each individual receive. There are live Patrons in this country, and such are striving to impress this idea upon all *slow* members."—*E. C., Md.*

Progress.

Six more new Granges:

Marlborough, No. 118, Chester county, New Hampshire.

West Hartford, No. 58, Hartford county, Connecticut.

Grover, No. 815, Bradford county, Pennsylvania.

Eureka, No. 816, Crawford county, Pennsylvania.

East Valley, No. 634, Furnas county, Nebraska.

Hope, No. 678, Huron county, Michigan.

The Grange Fire Insurance Company of Massachusetts is an assured success. It will start with over $500,000 of insurance on the property of Patrons *only*.

East Haddam Grange, Connecticut, received 56 members during the month of February.

Monmouth Grange, No. 92, New Jersey, has just received 18 new members.

Farmington Grange, Connecticut, conferred the fourth degree upon 17 members, February 14th.

Pembroke Grange, No. 111, New Hampshire, received 37 new members February 22d.

Columns could be filled with the reports of reorganization and new members, coming up from all parts of the United States. The rising tide is *surely* reaching all our States.

"Then turn up the soil and work it with care,
Sow broadcast the seed and root out the tare;
Look forth on the harvest of bright, waving grain,
Have faith in your labor. 'Twill not be in vain."

National Reading Circle.

Fannie E. Thoman contributes to the *Farmers' Friend* a long but very readable essay, on cultivating literature in the Grange and home circle, from which we extract as follows:

A decided step in the right direction has been taken in our Grange in the use of programs of specified work of an instructive and entertaining nature for each stated meeting.

A similar plan on a larger scale, and more united in its work, is the "Patrons' National Reading Circle," introduced by Col. R. H. Thomas, Secretary of the Pennsylvania State Grange, and approved by the Executive Committee of that body about one year ago, and in November last numbered 250 Circles, from 130 to 140 of these being in the State of Pennsylvania. It is similar to the famous Chautauqua system, with the addition of practical lessons and discourses upon agricultural and farm topics in general, thus giving to farmers and their families some of the educational facilities enjoyed by cities and towns. The rapid increase of these Reading Circles, and the interest that has been manifested in them, certainly proves what can be done by farmers in the direction of the cultivation of literature if you can but persuade them to try the experiment. We all know that an organization, in order to prosper and be successful, must have a firm and practical financial basis; the Grange is no exception to this acknowledged fact. Therefore, in advocating the greater cultivation of literature in the Grange, it is understood that it should not take the place of the regular and practical work of this organization, but that it should have an equal amount of time and attention.

Many can recall the time when farming by any other method than the old beaten track of our great-grandfathers was looked upon as money and labor almost worse than wasted. Thanks to education, those days are passed, and the farmer realizes at last that he must think and act intelligently for himself to keep pace with the age, and that agriculture to be successful requires as much study and deep thought as many other sciences. He has seen that scientific farming is practical and profitable. Not only is this the case in the field and stockyard, but also in the kitchen and dairy. The march of intellect may be seen in the improved surroundings, scientific methods and convenient implements used by the intelligent housekeeper.

This recalls an illustration of the advantage of education and its application in the household. A young lady, after graduating with high honors from one of our educational institutions, became engaged to a young farmer of moderate means. A friend, knowing the circumstances of the case, asked her what she intended to do with her fine education in farmer B's kitchen. "Do?" she replied. "Why, I intend to make use of it every day. I can make a fire better and in less time through my knowledge of philosophy, which also applies to many other things with equal advantage. Bake a better loaf of bread by knowing the chemical action of its ingredients and the effect of heat upon it, etc. In fact, I expect to use all that I have learned in making a comfortable and happy home, that shall be the best and most attractive place on earth to those who dwell therein." Was not her view of the matter the correct one?

What would a farmer say to a man who purchased a farm, and for the period of seven or eight years he planted and cultivated it upon approved principles, reaping good harvests? At the end of that period, suppose he should say that he had spent time and labor sufficient upon that land for it to take care of itself and bring forth the usual harvest without any further trouble upon his part. Would not any reasonable person say that he was insane to expect aught but a harvest of weeds, without the yearly planting and cultivation of good seed? Yet is not this just what some do with the intellect? There are very few in the rural districts who attend school after they reach the age of 15 years, and many see their last of the schoolroom before they reach that age, unless they intend to teach or enter some other profession. After the schooldays are over, if something is not done to continue the cultivation of the intellect, the mind soon becomes in the condition of the neglected farm. Cannot the Grange do a good work in this direction, and are not its capabilities almost unlimited in this respect?

Unequal Taxation.

Among the visitors present at the recent session of Summit County, Ohio, Pomona Grange, was Lecturer D. M. King, of Portage county—one who "hopefully believes that the 2,000,000 of Grange workers, with their increasing numbers, will be able to counteract the tendencies of both anarchists and monopolists to disrupt this government."

On the second day, as we gather from the *American Grange Bulletin's* account of the proceedings, M. L. Shook opened the discussion of the question: "How shall inequalities in taxation be remedied?" These inequalities are largely the results of unequal laws, and are to be remedied by legislation to be secured only through the ballot. When the assessors make their annual rounds the storerooms of the manufacturers are filled with implements of which the principal cost is in the labor which has been put upon them. The manufacturers are taxed only upon the average value of the raw material used monthly in their construction. The small fraction of their value is taxed; the large fraction escapes. The real estate and machinery employed in manufacturing is usually appraised at about one-fourth their value. The farms of the country are appraised at an average valuation of 62 per cent of their real value, and the products of the farm, upon which the farmer has expended an amount of labor nearly equal to their worth, are assessed at their full market prices. The same inequalities appear in our tariff legislation. Michigan wants her lumber protected; Pennsylvania and Ohio want their iron; Louisiana wants her sugar; the railroads want charters, land grants and Government loans; the banks want control of the money. They form a combination and enact such laws for their own benefit as may be agreed upon by the syndicate. In the year 1882 the people of this country paid nearly $48,000,000 import duties upon sugars, when the whole product of the Louisiana planters was worth only about $10,000,000. This duty has been somewhat reduced and the price of sugar has fallen, but the question remains, is it worth the people's while to pay all these millions to keep Louisiana voting with the syndicate?

D. M. King called attention to some statistics of unequal taxation in Pennsylvania, where farmers pay six times the taxes that are paid by money capital; also to the efforts that are being made by farmers in Mahoning county, without distinction of party, to reduce the taxes of that county. Charles Fields spoke of the double taxation of farms that were under mortgage. M. D. Call said that the law was generally correct in requiring all property to be taxed according to its real value. To tax a farm at its real value and the mortgage upon the same at its full value, was a violation of this rule, and the law that allowed it should be changed.

H. W. Howe said there was a clause in the law relating to the taxation of banks, which provided that bank capital should not be taxed higher than other capital. Bank stock, in demand at 25 per cent premium, has been assessed at two-thirds of its face value. The banks found other property assessed at a less proportion of its value, and thereupon asked the court to enjoin the treasurer from the collection of this illegal tax. The court granted the injunction, making a dead-letter, so far as the banks are concerned, of the law requiring all property to be assessed according to its real value. Owners of bank stock are privileged to deduct from it their indebtedness. It is alleged that affidavits filed with some of the county auditors in the State show an immense indebtedness on the part of such owners. The remedy lies in investigation followed by legislation.

HARVEST FEAST AT OAKLAND.—A good time is expected by Temescal Grange to-day, when the degrees of Husbandman and Matron will be conferred. It is hoped that a number of the Grange members of the Legislature will be present, with Patrons from Eden and other Granges, to discuss matters of great interest to farmers, concerning past legislation, with hints for the future; also that letters of importance will be received from those not able to attend. Bro. Geo. Steele, senator from San Luis Obispo county, in a recent visit to our office, spoke in high terms of the sterling influence and work done during the recent session by Bros. Chandler in the Senate and Ohleyer in the Assembly and other Grange and farming members of the Legislature. Bro. Steele returned home too early to be in attendance at Oakland to-day. Meeting at 10 o'clock. Let Patrons from all quarters, who can, attend.

GRANGE ITEMS.—The *Patron* informs us that Bro. Overhiser is setting forth upon his organizing tour. The work is waiting in Fresno, Tulare, Kern, Los Angeles, San Bernardino and San Diego counties....Yuba City Grange is to confer the second and third degrees to-day (March 19th) at 1:30 P. M....Sacramento Grange's last "Literary Day" was an exhilarating success....Watsonville Grange has voted thanks to Bro. Blackwood for his services as chairman of the State Grange Legislative Committee and indorsed the recent resolutions of San Jose Grange as to woman suffrage.

OAKLAND has just elected a very promising young man mayor by a heavy popular vote. We allude to W. R. Davis, a younger brother of W. E. Davis, Master of Santa Rosa Grange, and one of the prominent members of the California State Grange.

LONG AND SHORT HAULS.—The problems of "Interstate Commerce" are thus parabled in the San Bernardino *Times:* A gentleman riding in a California Southern car the other day had a postal card which he desired to send to a friend in Maine. Now if he could get that card to the postal car ahead of him, the Government would carry it 3000 miles for one cent. That's the long haul. But he had to pay the porter 25 cents to have the card carried a few yards to be mailed. That's the short haul. The porter, however, fell into a conversation with the brakeman, forgot his mission and lost the card. That was the shrinkage. And now you have the whole interstate business in a nutshell.

SAN DIEGO has just been taking its census, and finds its population 11,300.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

OUTLOOK AROUND MT. EDEN.—Haywards *Journal*, March 12: You can almost see the young grain come up, and the outlook is exceedingly bright. The acreage planted is equal to, if not greater, than that of any previous year. Seeding will be about finished this week. There was extensive chevalier planting the past two weeks, and the ground was never in better condition. We had a very warm spell last week, and the young grain sown was not long in sprouting. In one case where chevalier was planted last Tuesday, by Friday the roots were an inch long, and in less than one week it was above ground. Although we have had unusually heavy rains for two or three weeks past, the grain on the adobe has not been injured, and at present has a promising look.

Contra Costa.

VINES AND FRUIT TREES.—Crockett Cor. *Gazette:* On the Edwards farm there are planted some 9000 vines, all of table varieties, about one-half being Muscats. This vineyard is four years old, and the grapes produced on it last year were of the choicest quality and of excellent flavor. About 2000 trees have also been planted on the farm, one-half of which are Silver prunes. Apples sent from this orchard to the Mechanics' Fair last season, Mr. Swain remarked, assisted him very much in securing the premium for best county fruit exhibit.

Los Angeles.

FINE FRUIT FARM.—Pomona *Progress:* C. E. White has one of the model fruit farms of the Pomona valley. Forty acres constitute the home place, and 40 acres are in another piece just south of the railroad, and east of the town limits. The home place embraces 18 acres of oranges, 10 acres of Malaga grapes, and 10 acres of Royal apricots. The eastern place includes 10 acres of olives, 20 acres of Moorpark apricots, and 10 acres of French prunes. The prunes are three years old. Last year they averaged 20 pounds to the tree, and sold for two cents per pound. The apricots are planted 20 feet apart, and average 108 trees to the acre. Two years ago they averaged 120 pounds to the tree. Last year's crop was very light, being only 25 pounds to a tree. This year he expects to get 150 to 175 pounds per tree. The vines are planted 8x10. Last year gave the first crop, of 15 pounds to a vine. This year he expects 25 pounds. Mr. White expects to reap an increased profit from the cold storage system.

GREEN PEAS FOR THE HUB.—Pomona *Times-Courier:* E. T. Palmer has shipped 500 pounds of green peas to Boston. They are to be subjected to the cold storage process at Riverside, and forwarded East in refrigerator cars. This shipment is made as an experiment.

OLIVES FROM GATE-POSTS.—Santa Ana *Standard:* Six or seven years ago a man living near Orange set out two olive posts on each side of his gateway. They grew rapidly, as they were near his ditch, and two years ago the owner told us his crop of berries on the two trees amounted to ten bushels.

Marin.

CAMELLIAS.—San Rafael *Journal:* These exquisite flowers thrive in San Rafael. We once spoke of a group of trees heavily laden in Mr. Lichtenberg's grounds. In Hall McAllister's garden is a camellia tree from which 40 dozen flowers have been taken this season, and near it stands a very vigorous one imported from Japan, that is 300 years old and cost $300. It is about one foot in diameter at its base, though, like a true Jap, it is not tall—only about seven feet.

Mendocino.

ONE NICE DAIRY FARM.—*Dispatch and Democrat:* Joseph Sheppard runs a dairy and creamery on the Garcia river, just north of Point Arena. He has a most excellent ranch, on which he keeps about 200 Jersey cows, and from their milk manufactures the finest butter we have ever eaten. The cream is separated from the milk by a patent process, and the butter made at once, so that it cannot be otherwise than sweet. The butter is shipped to S. F., where it finds ready sale at the highest price paid.

Modoc.

GETTING RID OF RABBITS.—Adin *Argus:* Last Saturday a number of people left town in sleighs and on horseback, armed with long sticks, to rid Big valley of the rabbit pest, and succeeded in killing about 1000. The snow being 18 inches deep, the rabbits could not run, and the men would come up to and knock them over with clubs. It was a novel and economical way.

Placer.

PEPPERY PRECOCITY.—*Republican*, March 9: On P. W. Butler's place is a pepper tree which has made a remarkable growth. Two years ago it was a very small sprout just out of the ground, and now it is perhaps 18 feet high, with a trunk about a foot in diameter.

THE CO-OPERATIVE FRUIT COMPANY held a meeting in Newcastle Saturday, and decided to continue business this year as a corporation. It now has 35 members. John Mitchell was elected President, William Barter, V. P., and R. N. Nixon, Sec. These, with J. W. Blanchard and G. W. Callahan, will be the Board of Directors. William Hazen was elected Treas.

urer. Captain Hawk will retire as manager, being compelled to devote his attention to his ranch.

Sacramento.

HIGH HOPES.—Telegram to *Chronicle*, March 12: Sacramento valley farmers and fruit-raisers assert that there has never been a season when the outlook for crops was so good as now. Grain is reported in fine condition, and fruit in unlimited quantities will be produced in Sacramento county this year. From Galt, Folsom, Isleton, Courtland, Elk Grove and all the Sacramento county towns comes the cheering news of good times and business activity. Hundreds and hundreds of acres of new land have been planted to trees and vines this spring. The advent of new settlers and new energy has set commercial blood flowing in this community as never before, and the boom that is upon us is the general theme of conversation.

San Bernardino.

LARGE SOWING OF BARLEY.—*Valley Echo:* The newly-sown fields of barley are looking fresh and green. A larger acreage has been sown in this vicinity than ever before. Nearly all the unimproved lands of Arlington have been converted into barley fields.

THE CANNERY PROJECT.—*Index*, March 12: It is pretty authoritatively stated that an extensive cannery, under the management of Wm. T. Coleman & Co., of S. F., will be started at Lugonia the coming summer. Between Lugonia and the Santa Ana river there are thousands of peach and apricot trees in full bearing, and this immense crop is a big summer job. It is also rumored that the S. P. R. R. will extend its line from Mound City, only three miles away, to the Stillman tract just above Lugonia, which is the most accessible place in the valley to shippers. Leland Stanford's heavy landed interests at Lugonia give color to this rumor.

San Diego.

MAKING OLIVE OIL.—National City *Record:* Frank A. Kimball's new works are turning out olive oil by the barrel. This we consider a very important enterprise—one that will stimulate the raising of this profitable fruit. This mill will be able to handle all the olives raised hereabout and make the industry a very desirable one—perhaps the most remunerative in this section.

THE OTAY VALLEY.—This whole valley is rapidly becoming a charming section—a garden, vineyard and orchard, from the old county road back nearly to the mountains on the east. Lands in this valley which we could have purchased at $25 per acre one year ago have been recently sold for $60 per acre, and are now held at $100.

San Luis Obispo.

NIPOMO NOTES.—Cor. San Luis Obispo *Tribune:* Nipomo is enjoying a genuine real estate boom. From the cars can be seen eight dwelling-houses in course of construction in the valley, while in Nipomo five dwelling and business-houses are nearly completed. A carload of fruit and ornamental trees were sold last Thursday. The greater portion of the Nipomo has already been sown to wheat and barley and is looking fine. Beyond Santa Maria but little grain has been sown, and, as a rule, the ranchers have just commenced plowing.

Solano.

EDITORS PRESS:—The past four days have been warm and summer-like, and fruit-buds are fast turning into blossoms. Grass and grain are coming forward rapidly. To-day is cloudy and looks like rain. People here are very busy working their orchards and vineyards. Tomato plants that have been set out from hot-beds look well; they are worth $2 per hundred in Vacaville. The roads are very good, but rough.—G., *Vacaville, March 13th.*

Sonoma.

PROLIFIC PULLETS.—Cloverdale *Reveille:* An attache of this office gathered from eight hens during the month of February (28 days) 110 eggs. The hens are confined in a small yard, receive good care, and give ample returns in "hen fruit," as the above shows. The cockerel and two hens are thoroughbred white Leghorns (prize chickens), while the remaining six are half-breed brown Leghorns.

Sutter.

HORTICULTURAL COMMISSIONERS APPOINTED. *Farmer:* At the regular session of the Board of Supervisors for Sutter county, March 7th, upon petition of six orchard-men for the appointment of a County Board of Horticultural Commissioners, it was ordered that R. C. Kells, J. C. Gray and S. J. Stabler be and they are hereby appointed commissioners for Sutter county, to be known as a County Board of Horticultural Commissioners, provided, always, that in no event shall the services, acts, or things done or performed by said commissioners, or either of them, be or become a charge upon this county, in any sum whatever, until the further order of this board. This order is made under and by virtue of an Act of the Legislature of the State of California, entitled, "An Act to protect and promote the horticultural interests of the State," passed March 14, 1887. [We should say that the selection of members of the county board strikes us as excellent.—EDS. PRESS.]

NEVADA.

HOW HE SAVED HIS SHEEP.—Reno *Gazette*, March 9: Pat Molloy, who came in last evening from his sheep range, reports that he got his flock through the heavy snowstorm with a loss of only eight head. While the snow was deepest he moved his sheep about half a mile a day, thus keeping them on fresh sagebrush, and thereby kept them from starving until the snow settled.

LIVE-STOCK STATISTICS.—The number of horses in the State on January 1, 1887, was 44,654, valued at $2,462,499; mules, 1657, valued at $121,151; milch cows, 17,633, valued at $638,356; oxen and other cattle, 317,059, valued at $6,949,993; sheep, 674,486, valued at $1,153,371; hogs, 14,546, valued at $77,339. The increase in the number of horses in this State in 1886 over the number in 1885 was five per cent; mules, six per cent; milch cows, six per cent; oxen and other cattle, 10 per cent; sheep, two per cent; hogs, one per cent.

OREGON.

STOCK NOTES.—Ashland *Tidings*, March 4: Shook Bros., of Klamath county, are feeding from eight to ten tons of hay daily, and say that if the storms continue many farmers will lose their stock. The horses running loose are in very poor condition, and the bunch-grass which they are able to get from beneath the sagebrush, barely suffices to keep them alive. Hay is quoted at $15 a ton, and scarce at that figure.

CROP PROSPECTS.—*Willamette Farmer*, March 11: The snow was rather a benefit than an injury. So far as we can learn the wheat fields are in fine shape. The fruit crop promises well because of the late spring. If the weather keeps fine when good weather comes, there will be little danger to fruit. We are beginning to make fruit pay us a handsome profit, and a good season will encourage many to plant trees who have not yet done so.

The Fruit Union.

The Trustees of the California Fruit Union met on the 14th at 507 Montgomery street, S. F. All nine Trustees were present, and Pres. A. T. Hatch in the chair. There were also in attendance the following Eastern fruit dealers: Porter and Salisbury of Chicago, Palmer of Minneapolis, Davidson of Cincinnati, Butts of Council Bluffs, and Perry of Denver.

The special object of the meeting was to devise some plan by which the interests of Californian fruit-growers and shippers can be better protected, the coming season, and their business made more profitable. The discussion, which ran through both morning and afternoon, revealed a prevailing disapproval of last year's system of shipments and a general feeling in favor of but one agent in each principal Eastern city, who should receive all shipments to the territory under his control. Thus the quantity shipped to each place could be regulated and no more sent to one point than could be promptly used. With but one agent and a proper supply to meet demands, it was thought the difficulties of competition, with a surplus in some places and a scarcity in others, would be overcome.

A good deal was said as to the feasibility of sending East some member of the Union to act as a supervising agent. While the desirability of such a measure was unquestioned, the heavy expense it would entail was felt to demand unusual deliberation. It was resolved to call for the fourth installment of the 25 per cent on the capital stock, and to debar from the privileges of the Union all members who do not pay up by May 1st.

In the evening the directors met in executive session at the Palace hotel, and decided that an Executive Committee of three shall be appointed, consisting of the general manager and two directors, to serve during the term of the board, and that this committee shall hold a meeting on every Wednesday during the shipping season at the office of the general manager in Sacramento, to examine the books, confer with the officers and give the general manager such directions as may be considered necessary, subject to the approval of the full Board of Directors at their next regular meeting.

It was also determined that there shall be but one agent in any city in the Eastern States, except where fruit is sold at auction; in which latter case shippers may name their consignees, provided the fruit is sold by the same auctioneer at the same time and place; and that all agents hereafter appointed be required to give bonds sufficient to cover the largest volume of business which they may be expected to handle at any one time. The president will proceed to the Eastern States as soon as possible to appoint agents and make all other provision for properly handling the fruit of the coming season. He is also to look over the ground and estimate the approximate quantities to be shipped to the various points at any one time.

The National Bank of D. O. Mills & Co. of Sacramento was chosen as treasurer of the Union.

At the directors' meeting on the 15th, L. W. Buck, of Vacaville, Solano county, was re-elected general manager, and H. Weinstock and P. G. Platt, both of Sacramento, were appointed members of the Executive Committee.

Messrs. Weinstock, Kellogg and Buck were chosen to call on the Sunset Telephone Co., and present the following resolution:

Resolved, That the California Fruit Union respectfully suggest to the Sunset Telephone Co. that there is a large amount of fruit grown and shipped through Placer and Nevada counties, requiring very ready and complete communication between the different shipping points; we, therefore, request that the company investigate and consider the matter, and if consistent, extend their telephone connections through said territory.

Authority to audit bills was relegated to the Executive Board. Adjourned to meet in Sacramento, April 13th. The Union now has 817 members, representing 11,000 acres of orchard.

Constitutional Amendment Election.

Governor Bartlett has issued a proclamation for a special election to be held April 12th, for the purpose of voting on the Constitutional Amendments proposed at the past session of the Legislature. The amendments to be voted upon are three in number. Two relate to the judiciary and one to the framing of charters for cities. The latter is intended to confer upon cities having a population of over 10,000 and less than 100,000 inhabitants similar powers in relation to the framing of charters, by means of a board of 15 freeholders, to those now possessed by San Francisco. It will avoid the difficulty that has been met with under the general law in bringing about an agreement between two classified cities as to their respective needs. This difficulty has occurred particularly in the cases of Oakland and Los Angeles, which, by population, are classified together and have been unable to agree upon a charter acceptable to both cities.

The two relating to the judiciary are, first, relating to the internal arrangement and work of the Supreme Court; and, second, raising the salaries of the judges. The latter also provides that disabled justices, when their disability is certified to by five of their associates, are to be retired on a retiring salary of $250 per month for the remainder of the term.

A "WELCOME HOME" TO HON. C. C. WRIGHT.—On his return from Sacramento to Modesto last Saturday, Assemblyman Wright met with such a hearty greeting as well attests the esteem in which the people of Stanislaus county hold his faithful services in the Legislature. Notice of the intention to give him welcome, published by the local press, brought hundreds of people together from different parts of the county, some having come 25 miles to attend. Not less than 2000 persons were assembled at the depot when the train arrived, amid firing of cannon, playing of the brass band and hurrahing of the multitude. Mr. Wright, having been received by the committee and escorted to a carriage, a procession was formed, headed by the Turlock band, which marched to Rogers hall. The reception was strictly non-partisan, Mr. Wright being a Democrat. Dr. T. W. Drullard, chairman of the Republican County Central Committee, presided. Hon. G. W. Schell, a Republican, addressed the meeting, as did Dr. S. M. McLean, who was a candidate on the Prohibition ticket. Mr. Wright explained to the meeting the irrigation bill which bears his name, and predicted that inside of five years Modesto will have a population of 5000.

SANTA BARBARA ORANGES.—Chas. R. Hails brings us from his place at Cathedral Oaks, Santa Barbara, a fine cluster of Washington Navel oranges, large, clean and showing well the characteristics of the variety in juice, close texture and weight. Mr. Hails says his trees had some black scale until last summer, when the insects were killed by the excessive heat, as was the case in other southern situations as reported in the RURAL at the time. Mr. Hails brought also excellent specimens of the paper rind St. Michael. Cathedral Oaks is a beautiful locality about seven miles easterly from the city of Santa Barbara. Mr. Hails settled there 14 years ago and this is the first vacation he has taken since he began. We imagine from the fine fruit shown that Mr. Hails' place must be something handsome, but he modestly refrained from saying anything about that. Our talk with him as to the general condition and prospects of the county gave us the impression that activity and progress were ruling characteristics.

THE SANTA ROSA & BENICIA RAILROAD.—About the middle of the winter it was given out that a railroad would speedily be built connecting Santa Rosa with Benicia, and great was the rejoicing thereat in Sonoma county. But the project now seems in danger of miscarriage; the contractors have balked and the *Democrat* of last Saturday intimates that the directors have been grossly imposed upon by somebody, and that heroic treatment is called for to save the enterprise from utter dissolution. We hope that the needful combination of wisdom and nerve may be made manifest.

CONTRACTS TO BE CANCELED.—The S. P. Co. has issued a circular to agents and shippers, stating that "all special and contract rates quoted or entered into by this company will be canceled March 31, 1887." This action is made necessary by the Interstate Commerce Law.

The Colton Citrus Fair.

The Citrus Fair held at Colton, San Bernardino county, last week, is another instance of what can be done by co-operation and cordiality between adjacent communities. We should have more evidence of this sort and less of the outcroppings of sectional rivalry. Much of the latter comes from lack of knowledge of the real values outside of one's own little district, although local pecuniary interests are also a moving factor. The lack of knowledge can be best overcome by these pleasant assemblages which bring people in contact with each other; the local interest can thus also be taught that narrow views are neither the most creditable nor indeed the most profitable.

It is only a short time since the Colton people determined to invite their immediate neighbors and the farther regions to assemble for a show of horticultural produce. The result was a success beyond anticipation. We learn from accounts received that three rooms, each 30x60 feet, were occupied for the display, and they were arranged for their beautiful work in a most fit manner. The main hall was elaborately and most beautifully decorated with flowers and evergreens, and the pyramids of golden fruit, plates of bright, luscious strawberries and clusters of olives, presented a sight that was at once handsome and inviting. At the north end of the hall, wrought in evergreen, was the word "Welcome," and the word had special significance, for beside being cordially welcomed to the fair, all could enter the building without money or without price.

The leading exhibits were from the immediate vicinity of Colton, that beautiful stretch of mesa, known as "Colton Terrace," contributing splendidly. According to the *Semi-Tropic*, the exhibit from the "terrace" occupied a row of tables situated in the center of the hall, which ended in a pyramid in the north end of the hall, on which was displayed hundreds of oranges, lemons and limes grown exclusively on the Colton Terrace. The first exhibit we noticed was that made by Dr. W. R. Fox, which consisted of six varieties of oranges, viz.: Navels, Mediterranean sweets, Paper rind, St. Michaels, Konah and Seedlings; also a large variety of lemons, limes, olives, canned and preserved peaches, apricots, figs, loquat and orange jellies, strawberries in jars, pickled olives and quinces, and vases filled with beautiful flowers. The products of this one orchard alone would constitute a fair. Next came A. S. Fox's exhibit of some six varieties of oranges, and two of lemons and limes. Close by was to be seen the superb exhibit of the Alexander Brothers, of as many varieties of citrus fruits, followed up by fruits of Messrs. Sprecher & Fish, H. L. Martin, M. Archibald and James Barnhill. The pyramid of Colton terrace oranges attracted universal admiration and attention.

The district which stood next to the Colton neighborhood in extent of display was the eastern part of the grand San Bernardino valley, from San Bernardino City eastward, and including Old San Bernardino, Redlands, Lugonia and Crafton. The chief contributors were as follows:

Dr. Pierson, of Old San Bernardino, who had a fine display of fruit, both fresh and in glass, and a large variety of flowers; Mrs. C. R. Paine had an interesting exhibit of jellies and marmalades, made from citrus fruits; Aaron Haneson, who showed strawberries. A. Van Leuven, of Old San Bernardino, had a curiosity in the shape of oranges grown from the first tree planted in the valley in 1867, and they were on a par with the best. Among other exhibitors who creditably represented their various sections were Messrs. Croft, Paine and Care, and Mrs. Crafts, from Crafton; Messrs. Cook, Shaw, Haight and Tolles, from Lugonia; Dr. Pierson, W. Curtis and R. H. Kendall, from Old San Bernardino; E. P. Morrison and Mrs. B. Brown, from Redlands.

The Riverside people were represented by fine specimens of fresh and dried fruits, and there were also shown the fine set of gold medals won at the New Orleans World's Fair.

The social features of the fair were excellent, and throngs of people came in by excursion trains from surrounding points.

DISCUSSING PLEURO-PNEUMONIA.—The meeting of the U. S. Veterinary Medical Association at Philadelphia, on the 15th, was attended by representatives from nearly all the States. "Pleuro-pneumonia" was discussed at length, and it was

Resolved, That this association is convinced that inoculation for contagious pleuro-pneumonia is inapplicable and should not be allowed in the United States; that no animal should be placed in infected stables until thorough disinfection has taken place; and that all animals exposed to or having disease shall be destroyed.

OATS FOR GERMANY.—A leading commission house in Milwaukee has received overtures from a representative of the German Government for 200,000 bushels of oats for immediate shipment, and it was learned that inquiries have been made in other markets for large quantities of oats, corn and wheat for German consumption. Straws show which way the wind blows.



An Immigrant's Thoughts.

[Written for the RURAL PRESS by MIGNONETTE.]

We heard of a land, a sunny land,
A land doubly blest by God's own hand,
Where are lovely plains, and landscapes fair,
And fields, and fruits, and gardens rare;

Where the song of the birds doth never cease,
No winter or storms to disturb their peace;
Where green-clad hills and mountains high
Majestic rise 'gainst the western sky;

Where running rivers, and fruitful dales,
And a glorious sun that never fails
To cheer the way of the farmer who plods,
And hope inspires as he turns the sods;

Where lonely hamlet and quiet farm,
Far away from a city's worldly alarm,
Away from the sin, the worry, and strife,
Rest quiet and secure 'mid nature's still life;

Where forest wild and Sequoia grand;—
All these to be found in that far-away land;
Where ocean, the broadest yet calmest of five,
Wafts breezes making man feel doubly alive.

And now, dear friends, can you wonder why
Our home we left three years gone by,
And crossing the Atlantic, its mighty waves bore
Us on to the new and unknown shore?

The years have gone past with a ceaseless flow,
And oft as we sit watching the sunset's glow,
We talk of adventure, and trouble, and loss,
But know "A rolling stone gathers no moss."

We've traveled, and bought, and sold, and lost,
And at times wished we were again ocean-tossed,
If only homeward away! yes, homeward bound,
For in "the Golden State" no good is found.

And oft as we sit in our country home,
And think of the unknown years to come,
We ask if it's true that in this land,
Money is made on every hand.

But again we remember that the errors we've made
Are not the fault of the country; it shall not be said
Whose they are: We'll take heart again, and know
that in time
The grandest of lands will be in this Californian
clime.

And let old and new settlers on this foreign shore,
Who love, think, and aim for naught save earth's
store,
Just pause for a moment and let their eye rest,
On yon wondrous light as he sinks in the west,
On yon graceful cornfields, on yon mountains high,
On yon mighty forests with river hard by;
See the moon as she soars in an ocean of light,
See the sentinel stars keeping watch in the night,
Raise your hearts to the Maker and Giver of all,
And trust in His mercy whatever befall.

Tulare Co.

Wordsworth's Works.

[Written for the RURAL PRESS by C. P. N.]

I have never been able to understand why, because Wordsworth wrote one real poem, his works as a whole should be lauded to the skies, placed next to the works of Shakespeare and one or two other great poets and considered classics. That "Intimations of Immortality" is a masterpiece, fit to rank with any other poem ever written, and that *it* will remain a classic as long as the world lasts, no true lover of genuine poetry will for a moment deny; but—ah! that *but!*—no other one of all his poems can approach it in beauty of thought and expression, and hardly half a dozen of all his poems would be said, by one who had never heard of him before, to be the production of a true poet. He had a mind able to see many phases of the works of Nature, and, being an easy, fluent writer, was always raving and rhyming about "the silent heavens," "wildernesses dreary," "pathless rocks," or "gigantic mountains rough with crags." Having the heart of a poet, he was yet unable to translate into interesting paragraphs the "thoughts * * * too deep for tears," that he felt; and while he satisfied himself that he was the equal of Milton, he lost sight of the fact that old truths in commonplace settings merit little attention and possess less value. Poetry requires much more in its composition than bare simplicity, and had Wordsworth spent as much time on a few of his productions as he evidently spent on "Intimations," not undertaking so much—had he polished and shortened and introduced a little of the poetical feeling and touch in them, they would then probably have been well worth reading. As it is, his long poems in particular—"The Excursion" and "The White Doe of Rylstone"—are dreary wastes of barren deserts unrelieved by any poetical oases except in a few rare spots. "The Excursion" is really prose divided at irregular intervals into lines commencing with capitals, and is with unintentional sarcasm called "poetry." Copied in the form of prose, with only the omission of capitals, what uninitiated person would dream that the following sentences were originally written in the form of blank verse? They are from Book III of "The Excursion":

"His countenance gave notice that my zeal accorded little with his present mind; I ceased and he resumed. 'Ah! gentle sir, slight, if you will the *means;* but spare to slight the *end* of those, who did, by system, rank, as the prime object of a wise man's aim, security from shock of accident, release from fear; and cherished peaceful days for their own sakes, as mortal life's chief good, and only reasonable felicity.'"

(Such punctuation, although ruinous to a degree, was characteristic of that age, and therefore I have nothing special to say about that in this connection.)

Or take another example, this time from Book I of "The Excursion":

"We were tried friends: I from my childhood up had known him. In a little town obscure, a market village, seated in a tract of mountains, where my schoolday time was passed, one room he owned, the fifth part of a house, a place to which he drew, from time to time, and found a kind of home or harbor there."

This, to use an old, familiar pun, is indeed very blank verse.

Any one who wishes to be considered a poet, and especially one who flatters himself that he will "one day take rank by the side of Milton," as Wordsworth flattered himself, should never be so blind to the merits and demerits of his own writings as to allow anything commonplace to become known as his production, and, in fact, should not allow himself to even write trash. A poet must be one of the most versatile of men, able to view objects from different standpoints, talk about them intelligently and express what he wishes to say regarding them in a naturally poetical manner. His powers must be sufficient to raise his subjects out of the gutter if he would treat of ordinary things, and he should never allow his grasp of mind to fail him when dealing with great subjects. Perhaps the most laughable of all blunders and failures is when a poem is intended to convey some exalted lesson or present a truth in a lovable light, but fails in the attempt. Wordsworth has been guilty of this in "Peter Bell." Some parts of this poem are excellent, but when the reader comes to the last stanza, he receives such a severe surprise that he will, if he have any spark of humor in him, cry: "Eureka! a rich specimen of bathos!" Charles F. Johnson has said of this poem: "In fact, the moral savors so strongly of wishy-washy, goody-goody sentimentalism, is so out of keeping with the gnarled, tough and vigorous figure of the hero, that there is not a more startling instance of bathos in literature than this poem of 'Peter Bell.'"

Read the following lines—I dare not insult the shades of Shakespeare so much as to term the thing a poem—and you will wonder, as I have wondered, how a man who hoped to be considered a poet equal to Milton would yet dare to allow such lines to have an existence:

"The cock is crowing,
The stream is flowing,
The small birds twitter,
The lake doth glitter
The green field sleeps in the sun;
The oldest and youngest
Are at work with the strongest;
The cattle are grazing,
Their heads never raising;
There are forty feeding like one!
Like an army defeated
The snow hath retreated,
And now doth fare ill
On the top of the bare hill;
The plough-boy is whooping—anon—anon:
There's joy in the mountains;
There's life in the fountains;
Small clouds are sailing
Blue sky prevailing;
The rain is over and gone!"

Did time and space allow I could speak of other of Wordsworth's so-called poems, "The Idiot Boy" and "Beggars," for instance, that are quite as deficient in poetical expression as any verses I have quoted, but I think enough has been said to prove that, though he wrote a few excellent pieces, he wrote a great deal of stuff that is called poetry only out of respect to the author of "Intimations of Immortality." Wordsworth had something to say, but when he tried to say it he forgot to put away childish things, and the lamentable result is that although he is a man in thought he is a child in expression.

If the lovers of Wordsworth compare him with Shakespeare and Browning, his fate may be much the same as that recorded by Æsop of the frog who wished to make herself as large as the ox.

Haywards, Cal.



ELIZABETH D'ARCY KINNE, NATIONAL PRESIDENT W. R. C.

THE SALOON IN POLITICS is arousing the attention of the secular as well as the religious press. Many who differ widely from the Prohibitionists about policies and measures yet agree with them as to the malign and debasing power of the grog-shop upon State and national politics. It blunts public confidence, defeats wholesome legislation, debauches the voter, subordinates the politician and manipulates election returns. In city and country it makes itself felt with tremendous effect. It is high time for the church in all her branches to lift up her voice against the crying evil. She must combine her forces and wage an aggressive warfare against the giant wrong. United, determined action is demanded. Were she one in policy and movement, thoroughly aroused and active, the days of the saloon would be numbered.—*Presbyterian Observer.*

Winter Among the Sierras.

Written for the RURAL PRESS by MARY P. ARMS.]

The coming of the storm-king was long delayed this season; so long that the despondent began to predict another failure of crops, of which we have had many, and even the more sanguine began to say: was ever winter like this before?

Farm work was being rapidly pushed forward, plowing was going on on every side. The early spring flowers were peeping their little golden heads out into the sunshine on the sunny mountain slopes, when the 18th of January brought us a snowfall of half a dozen inches. Some brought out their sleighs, while others traveled on wheels until February 3d, when there came a night and a day of snow, one of those enjoyable storms, when the great fleecy flakes came straight down until mother earth lay buried three feet deep under her white mantle. And my little daughter begged me to repeat part of Whittier's "Snow-Bound," which she has grown to think part and parcel of every snow-storm. Was ever word-painting more true to nature?

"And when the second morning shone,
We looked upon a world unknown,
On nothing we could call our own.
Around the glistening wonder bent
The blue walls of the firmament;
No cloud above, no earth below—
A universe of sky and snow!
The old familar sights of ours
Took marvelous shapes; * * *
A fenceless drift what once was road;
The bridle post an old man sat,
With loose-flung coat and high cocked hat," etc.

Soon sleds and sleighs were taken out, and the work of breaking roads began in earnest, which was aided by the rapid settling of the snow. But February 12th and 13th the storm-king came again "announced by all the trumpets of the sky, and driving o'er the fields seemed nowhere to alight."

It was with difficulty the unstabled stock were fed, as the gusts of wind swept the hay here and there at its own wild will, while the poor dumb animals wandered around shivering with cold and half blinded with the snow, and the more favored of our equine and bovine friends who had been sheltered the previous night, were loosened but a short time at midday from stall and stanchion; while the snow drifted everywhere, finding its way into our closest houses—"into each crack and crevice, creeping, into the very keyhole peeping."

Again on February 24th we had a day of wind and snow, such as I have never seen, except among the high Sierras. Great drifts accumulated everywhere. The wind blew so relentlessly, those who are not wont to think of the source of their blessings instinctively thanked the Giver of all good for home and shelter.

These heavy storms always bring much work for many hands. Paths are to be shoveled, roofs which have grown unsafe from their heavy weight of snow are to be cleared, and many disarranged things are to be set straight. A few days after the storm of Feb. 24th the mercury sank to 20 degrees below zero, which is lower than we have had it for several years. My little girls delighted themselves with the beautiful tracery of nature's geometric signs upon the window panes, and we older ones recalled Hannah Gould's poem of our school days, of how Jack Frost

"Flew to the windows of those who slept,
And over each pane like a fairy crept."

Through all these weeks we have had what Emerson calls the "privacy of a storm." This morning I caught the first harbinger of spring in the full, glad notes of a meadow lark, who sang away apparently unconscious that the brown earth still lies deeply covered with snow.

Beckwith, Plumas Co.

A Leader in Charity.

We always enjoy the opportunity of calling the attention of our lady readers to those of their own sex who are leading in various departments of laudable effort, and on this page we give a portrait of a lady who is at the head of one of the leading charitable societies of this country. We borrow the portrait from the *Fraternal Record* of March, 1887, and the following descriptive paragraph is from the same journal:

Mrs. Elizabeth D'A. Kinne, of San Francisco, is National President of the Woman's Relief Corps. She has ever been one of the leading spirits of the Corps and continues one of the most ardent workers in the glorious cause espoused by the organization which carries on a noble work of charity as the auxiliary of the Grand Army of the Republic. The organization has been particularly fortunate in the selection of so earnest and faithful a worker as its chief executive. Her administration has been characterized by the exercise of the rarest good judgment, and the growth of the Relief Corps and the extension of its work during the few years of its existence has been little short of wonderful.

The national organization of the Relief Corps was perfected in Denver in 1883. Mrs. Kinne was appointed provisional President for this Department; the first Corps here having been organized in San Diego in June, 1883. At the

time of her appointment the organization numbered but five Corps. In February, 1885, a permanent organization of the Department was perfected, and Mrs. Kinne was elected Department President. In June of the same year, at the National Convention in Portland, Me., she was elected Senior National Vice-President, and in August, 1886, was elected National President.

In February, 1886, she closed her year's work as Department President with 21 Corps and 1200 members. Now the Department has 35 Corps, all in good working order, with 2300 or more members. Though the Department has not as many Corps as some of the Eastern Departments, still it ranks fifth in the matter of membership. Last year this Department disbursed $2700 in charity to the widows and orphans of soldiers, and to destitute soldiers not members of the G. A. R.

Mothers and Daughters.

Among one of the most essential lessons to be taught the young girl standing upon the threshold of womanhood and looking out with glowing hopes into the future is the sacredness of the marriage relation. The home life should be eloquent of its sanctity and its joy. The true value of the home, not merely as a place of shelter, but as a central spot where confidence, purity and mutual affection are the atmosphere which is breathed, our sons and daughters must learn to estimate in its true measure, and be taught to shrink from whatever would invade its sanctity or destroy its peace. If the mothers of America would train their children to look upon marriage in the light of its sacred obligations, and not as a relation that may be lightly entered into as a matter of convenience or ambition, regarding it as a compact that may be lightly broken if it prove in any way a disappointment, there would be less unhappy marriages and fewer divorces than exist to-day. The young girl who marries for a home, for social position, or from the fear of being "an old maid," or in order to spite a recreant lover, or for any of the numerous excuses for marriage save that of honest affection, does violence to her own nature, and to every hope of happiness in the marriage relation. The only safe and natural basis for married life is that of affection. It is the only one that will bring happiness and safety. Mothers, don't teach your daughters that to "make a good catch" is the thing to be regarded as the most important in determining their choice of a husband. Wealth alone will not bring happiness. There is a heart-hunger and isolation that is terrible, when marriage is cemented simply for mercenary ends. The young wife, bound to her husband by no ties of affection, and thrown into the society of brilliant yet unprincipled men, has no armor against temptation if once her heart is enlisted, and her affections, which are free, can be interested on the side of the tempter. She may not yield to dishonor, as the world recognizes it, but she may seek in divorce freedom from her unhappy marriage, and throw aside her wedded obligations as lightly as she assumed them. Every mother should seek to impress upon her sons and daughters the fact that marriage is something sacred, and a life-long obligation, divine in its origin, and, properly entered into, one of the most satisfying sources of earthly happiness.

I met a wise mother not long ago, whose daughter, a young girl of 20 years, had received some attentions from a widower much older than herself, but whom she had looked upon merely as a friend. "My dear," said the mother as her daughter confided the fact of his declaration to her, "do you feel that Mr. Blank is the man of all others that you could be happy with? Would you feel a sense of loss and sorrow at seeing him wed to some good woman other than yourself?"

"Oh, no, mamma," replied the young lady, "but I feel so sorry for his loneliness, and I do want to see that sweet little daughter of his brought up well, she is so lovely and winning; and he says if I do not marry him he will never seek another to fill his first wife's place. I like him, mamma, very much, but then I know I do not love him."

"Then, my daughter, do not think of marrying him. You are not called upon to marry him for his child's sake, and men are apt to forget their assertions that no other woman will do for them when they find their suit is unsuccessful."

That was three months ago, and the widower is now married to a good woman, more suited to his age, and the young girl is happy indeed that she was not led through her sympathies to become the wife of the man she did not love. Six months hence she hopes to be wedded to the man of her choice, a man to whom her whole ardent nature responds, and she says: "I should have missed the best life has to give had I married Mr. Blank. I shall be thankful all my life long for my mother's restraining counsel."

Mothers, be wise for your children; train your sons and daughters to be true to themselves in all the relations of life; to look upon marriage as desirable and honorable only when based upon affection, and divorce, save only for broken marriage vows, as a dishonor and a crime.—*Susan Sunshine in Los Angeles Times.*

TO MAKE papier-mache for fine, small work, boil clippings of brown or white paper in water, beat them into a paste, add glue or gum, and ize and press into oiled molds.

YOUNG FOLKS' COLUMN.

A Grandma That's Just Splendid.

Grandma's eyes are dim,
And grandma's hair is sprinkled
With threads of white; her caps set prim
Above a face that's wrinkled.

But grandma's eyes are kind,
And grandma's smile is cheery;
She likes our noise—she doesn't mind—
She calls us "pet" and "deary."

She tells us such a lot
Of stories, with a fairy
And giant in; she knows it's what
We like—something real scary.

She never scolds at all;
She keeps our playthings mended;
She dresses dolls. She's what we call
A grandma that's just splendid!

—*Golden Days.*

Louis Tells us a Story.

[Written for the RURAL PRESS by THORN.]

As was the custom, I generally managed to get the three boys off to bed with the promise of a story.

They had already listened eagerly to "Found in the Treasure Box," "Wooing of Master Fox," "Piff-Paff," and scores of others; tonight I was to tell them "The Three Lemons," and just as I had ended up with, "They lived happy all the rest of their lives," little Frank cried out, "Tell us another."

As my rocker was near the head of Louis' crib, he whispered, "I've got a story to tell 'em." So I introduced Master Louis as the story-teller. He began:

"Once there was a worm and a round stick which stuck straight up in the ground. The worm said, 'I am going to work and make a hole right around this stick.'

"So he started and in a little while he got all around; but this silly little worm didn't have many brains, and so when he got around the stick once, he kept going round and round until he dropped down dead."

With a sigh, Frank turned over on his pillow and said, "Poor thing!"

The next morning when Frank awoke he told the boys his dream, which ran as follows:

"I dreamed I had three lemons, and I cut the first one open and a fairy popped out; but I didn't give her any water, so she flew away. Then I cut the second open and let *her* fly away; but I didn't let the last one fly away, because I gave her some water, and then, what do you think? *She turned into a little tiny worm!*"

Louis and Charley gave one loud burst of laughter, and tripped downstairs to the breakfast-room to tell mamma that Frank's fairy was a little worm.

Island-Home Farm.

A Long Ride.

Ethel A., who passed her sixth birthday but a fortnight since, and whose parents live at the eastern extremity of the Highlands, was left at home with her mother a few days ago, the father being away on business and the older children all at school. Time with the little one hung heavily and she said: "Mother, may I get old sorrel and take a ride?" Mother gave her assent and old sorrel was brought out duly equipped. Ethel mounted and started down the road, as her mother supposed, for a short ride. At the forks of the road, about two miles down the valley, a pleasant thought flitted across the child's mind, as it was only about a mile farther up the slope to the schoolhouse where the children were—"It would be so nice to ride across and see them." Old sorrel had no objection, and so they visited the school-children. It then occurred to Ethel that it would be very nice to return by way of the ditch where the men were at work. So the return was made that way, completing a ride of about eight miles in a little over two hours, without accident and greatly to the relief of her anxious mother.—*San Bernardino Index.*

A TEAM TREATED WELL.—There is a big team drawn by four horses that we invariably meet as we drive with our children to school. The horses are so sleek and so handsome and always seem so happy, that our children, little ones, call out as they see this high wagon and fine horses, "Oh, there's Dizer's team." There are other wagons, besides the one drawn by the four horses, owned by Mr. M. C. Dizer, of Weymouth, and the animals are always bright and never seem overworked. The whole team is attractive, even to the kind-looking drivers who give the horses a breathing spell. During the late heavy roads, when the mud was very deep, we noticed a fifth horse as leader to the others, and although the drawing was hard, our four old friends went along as willingly as ever. Each of the children has his favorite of these well-cared-for horses, and we wish all who send teams to the city would emulate the care of Mr. Dizer or of whoever has charge of his animals. Economy in money alone would lead the prudent man to deal tenderly with his dumb servants, but love should prompt it, love to the helpless part of God's family.—*A. E. F., in Our Dumb Animals.*

GOOD HEALTH.

Water vs. Whisky.

EDITORS PRESS:—Water is the natural drink for man, and may always be taken in moderation when thirst is present. It performs important purposes in the animal economy, and is absolutely indispensable to life and health. Water is the only fluid which does not possess irritating, or at least stimulating, qualities, and in proportion as we rise from table beer to ardent spirits, in the same ratio we educate the stomach and bowels for that state of morbid sensibility which must eventually weaken the digestive organs in such a manner that they cannot perform their respective functions, and indigestion and dyspepsia is the consequence. If we would enjoy health, all stimulants should be avoided as common drinks. They may be useful as medicines, when nature falters and droops and cannot resuscitate herself; but as a beverage, stimulating drinks should be avoided. When stimulants are taken, the machinery of the system is hurried and driven too fast, and although by this means its activity and power may seem to be increased, yet a reaction must follow, and a corresponding debility must ensue, then another stimulating draught is called for to bring the system up again, when another reaction must follow. By this course the natural vigor of the constitution becomes gradually and oftentimes imperceptibly impaired. Hence, if we would preserve a healthy system instead of provoking nature to unnatural action, we must furnish her with sufficient healthy nourishment, and let her regulate her own mode and speed of action. Give her nourishment and she will furnish her own stimulants, which will be far preferable to any promptings which art can invent, sustain her in her natural action, and not force her to unnatural speed, which is weakening to her innate powers. To live naturally is to live healthily; to live artificially, is to tempt and foster disease. By stimulating, the nerves are excited, and, in due time, become so irritated as to set up an habitual state of morbid sensibility. From too frequent potations of spirituous liquors the appetite and powers of digestion are extinguished and the stomach irritated in proportion as the inebriate takes his libation the more frequent, till even the presence of food cannot be borne without pain, and a very small quantity of the burning fluid which he used to swallow so freely and with so much gusto, now quickly makes him inebriated. These are facts, and facts are stubborn truths which we see every day, and whoever has watched the dram-drinker's progress will bear me out and support the position I have taken. The too frequent use of ardent spirits stupefies the mind, blunts the mental faculties, weakens the nervous system, destroys our finer feelings, and makes us less sensitive. Injuring our appetite, it makes us irritable, lowers us in the estimation of our friends; we lose our self-respect; it reddens the eyes, it bloats the face, it saps the foundation of health, it weakens our physical strength, it cools the ardor of our attachments, it alienates our affections, and lastly it tumbles us into the ditch, and degrades us below the brute creation.

I find by the reports made to the authorities, in many cities, that there is a wonderful increase in an important branch of manufacturing. In these factories are made a great variety of articles for several classes of society, from the genteel dandy tippler to the beastly drunkard, from the brainless stripling, with his first cigar and julep, to the aged veteran, in filth and *rum*. Here the green puppy (pardon the expression) is prepared to squander his father's frugal earnings; here are made broken hearts of wives and daughters; here are ruined the hopes of fathers and the stay of mothers; here are prepared men for the prison and the gallows; here is doubled our taxation, and our homes are filled with poverty and shame; here votes are manufactured for demagogues to buy; here are made gamblers, thieves, rowdies, loafers, idlers, drunkards, vagabonds, grief, despair, suicide, and murder. In those factories are made rags, ignorance, and starvation for our children, shame and sorrow for our friends, and beasts of ourselves. LESTER CROSS.

Stockton, Feb., 1887.

Tested Prescriptions.

[Written for the RURAL PRESS by J. S. TIBBITS.]

Remedy for Dyspepsia.—Drink a cup of warm water, as hot as can be borne, in the morning, before eating. Eat moderately, slowly, and masticate food thoroughly. Drink no fluid while eating, and only one cup after the meal.

Cure for Corns, Bunions and Chilblains.—Three parts coal oil, two parts turpentine, and one part chloroform. Mix and apply to affected parts every morning, and heat in as hot as can be borne. Wear broad-soled, low-heeled shoes, and the cure will be complete.

AN EYE FOR AN EYE.—The replacement of a diseased eye by the healthy eye of an animal has now been done five times, with one success, says the *Medical Record*. In the four cases the cornea sloughed; in two, however, firm vascular adhesions took place.

DOMESTIC ECONOMY.

From Decoration to Dentistry.

[Written for the RURAL PRESS by MRS. J. HILTON.]

I must tell the sisters about a new kind of crazy work; and as it is very pretty, the brothers may do some of it, too, if they like.

Whenever you go visiting, get your friends to give you some of their scraps of wall paper and borders, and when you get ready to fix up your room, cut those different kinds of papers into various sized and different shaped pieces. Then paste the light kinds on the center of the ceiling, and the dark kinds around next to the wall. Then make a dado about three feet high from the floor, with the crazy work, put on a plain, light paper above that. Finish with the bordering and you will have a lovely room. If you have a design with circles in it, put that directly in the center of the ceiling. The room I saw done in that way was just elegant. The light paper relieves the medley, and makes a good background for pictures.

Unsealing Cans.—I have always made my own sealing-wax for cans with beeswax and resin, equal parts. But this year I did not have the beeswax, so I bought the wax that is made on purpose. But I did not like the way it flew all about when trying to open a can, until I tried pouring hot water on top of the can until the wax is soft. Then I put the point of my knife under the lid and lift it off, wax and all. In that way it does not get into the fruit, nor is it wasted as in the old way.

For Toothache.—Even when the tooth is decayed, two or three doses of some fever medicine will check and nearly always stop the aching. For ulcerated gums use a wash of one drop of carbolic acid to one cup of tepid water. Don't forget the proportions, because it must not be strong, as the acid is a poison. Although the mouth will bear stronger than that, yet that is safe, and will cure the ulcerations with one or two washings, unless they are very bad. If they are, keep on with the wash, and they will soon disappear.

Los Alamos, Cal.

Orange Recipes.

Sweet Orange Preserves.—Grate off the outside rind, cut in half and take out the seeds; after this put the fruit in a weak brine and let it stay for 12 hours, then rinse it in cold water. Put it into a kettle, cover it with cold water and let it come to a boil. Repeat this several times until the bitter taste is destroyed. Just as soon as the water begins to boil, change it for other water. Allow one pound of sugar to a pound of fruit, and one pint of water to a pound of sugar. Boil the fruit until it is clear, and after it is taken up, if the syrup is not thick enough, continue to boil.

Orange Marmalade.—Take 12 oranges, grate off the outer rind; reserve and spread on a dish what is grated from four of these. Peel them and reserve peeling of four, free the pulp from skin and seeds. Weigh the pulp, and add its weight in sugar. To this put one teacup of water, break up the pulp and put on to boil. Take the peeling of four oranges, shred it fine with a sharp knife, cover it with cold water and boil, changing the water until the rind is tender and free from bitter taste, then add to it the pulp. When the marmalade is nearly done, sprinkle in it the grated rind. How to tell when the marmalade is cooked enough: Take up some in a spoon, let it cool and pass the fingers through it. If it stays apart it is done; if not, it should be cooked longer. In the above recipes use the best granulated sugar.

Orange Cream.—The juice of six oranges, one-fourth of a pound of white sugar, one pint of boiling water and six eggs. Beat the yolks, add sugar, orange juice and water, and stir over boiling water until it thickens. When cool, put into glasses, and on each one put the beaten whites, sweetened and flavored with a little of the grated rind.—*Dayton (Fla.) Messenger.*

TO BAKE CAKE.—Most cake requires a moderately hot oven to make it rise up well. Fruit cake, however, should be put into a slow oven, as it needs longer baking and is apt to burn. For all cake the heat should be well kept up; if allowed to decrease, the loaves will be doughy inside, or at least heavy. Sponge cake, in particular, needs a steady heat. Jelly cake and all layer cakes need a hot oven and are easier for a novice to bake than any other kind. They bake quickly. Watch carefully to see that they do not burn around the edges. Except with layer cakes, do not open the oven door till the end of 10 minutes. It might chill the cake while rising, which is the most critical time. When opening the oven, take care that no cold draught of air from an open window or door strikes in. Do not slam the oven door when it is to be shut, or jar the pans by moving them unnecessarily.

TO COOK A HAM.—Boil the ham three or four hours, according to size; then skin the whole and fit it for the table; then set in the oven for half an hour, cover it thickly with pounded rusk or breadcrumbs and set back for half an hour longer. Boiled ham is always improved by setting it in an oven for nearly an hour, till much of the fat dries out, and it also makes it more tender.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, March 19, 1887.

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New Music—Oliver Ditson & Co., Boston.
Real Estate—Porter & Son, San Jose.
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Real Estate—J. E. Brown & Son, San Jose.
Veterinary Surgeon—Robert J. Dawson.
Machine Wanted—A. A. Dickie, Suisun, Cal.
Irrigating Pumps—F. W. Krogh & Co.
Wheeler Fruit Packing Company.
Fence Loom—T. D. Poole, Alameda, Cal.
Real Estate—Griffin Bros., Cottonwood Valley, Cal.
Egg Food—Merten, Moffitt & Co.
Soap—Capital Soap Company.

See Advertising Columns.

The Week.

The leading feature of the week to one who looks over the whole State is the general awakening of interest and uprising of the people in nearly all parts which is described by the short and expressive word "boom," and the State may be said to be "booming." A stranger might think from noting the accounts in local and metropolitan journals, and from the organization of Boards of Trade for the purpose of united effort in spreading the truth about the several parts of the State, that our citizens had but just awakened to the worth and splendor of their heritage; that though gold was found 30 years ago the State of California had but just been discovered. Such is indeed the fact in some respects. Certain it is that never before did the State cut so large a figure in the eye of the world as now, and never did the world by common consent agree to overrun California as is now being done. The great events of the past, the Conclave and the Grand Army Encampment, did not do more to fill the State for their brief seasons than it is now filled, as one might say on its merits and without any special rallying occasion. We rather like it. We are glad to see the different counties arising in consciousness of their might and resources. Let it go on; California is better than it has ever been painted. We are not afraid of the verdict of any one who comes to see the State and to judge for himself. The beauty of it is, too, that California improves upon long acquaintance, and those who know her best are her most ardent admirers.

Our Mourning Symbols.

The abounding hopefulness and cheerfulness of Henry Ward Beecher's pulpit ministrations were always consistently illustrated when in the presence of death and bereavement. He did all he could by precept and example to strip the King of Terrors of his hideous features and heathenish gloom. However tenderly he loved those who were near and dear to him by the ties of nature or spiritual companionship, he never would wear mourning when they passed away, nor encourage its use by those who were under his influence. He always regarded it as a language of despair no Christian could fitly use, and at best a burden the rich lay upon the poor they were little able to bear. His bright and cheerful spirit could have found nothing to offend in the simple and chaste tribute of respect paid over his own remains. Only in the draped public buildings and tolling bells, a matter over which his family had no control, were there any indications of those symbols of grief that have so long been a reproach to Christendom. His coffin was placed in the center of a well-lighted room, surrounded with banks of flowers. The sweet perfume pervaded the air, and on all sides could be seen the floral emblems of loving friends. No streamer of crape hung on the door, and while his remains lay in state in Plymouth church a few hours to give his vast congregation an opportunity to take a last look upon their great pastor, music continuously played and no insignia of sorrow was in sight.

There are some indications of a coming revolution in this matter, and the sweet serenity and chaste simplicity of the Beecher funeral is a lesson that modern society needs and will not fail to note. Only a few, here and there, for awhile will have the courage to stem the tide of a foolish fashion; but the day is not far distant when an enlightened common sense will prevail. The custom of putting on mourning has for years been abolished in the higher classes of England, and there is no reason why it should not go out of fashion everywhere and among all classes. It entails upon many families an expense they are not able to stand, and then it is unbecoming and unhealthy. Not one woman in a thousand looks well in mourning. Can there be anything more incongruous than the spectacle, often seen, of a round, dimpling, laughing face framed in widow's weeds? And equally disagreeable to a sensitive nature is a haggard and unhappy countenance arrayed in the somber trappings of woe. A coffin bobbing along the street would be no more unpleasant to meet. Occasionally a charming widow in doleful weeds may be seen, but the recollection that her sweet attractiveness was born of the grave, and that she is making capital out of a corpse around whose neck her soft white arms a few months ago hung in loving embrace, turns admiration into another sort of feeling.

Then what a ludicrous and grim absurdity governs the custom of wearing mourning. Everything which can catch the light must be discarded; each little scallop or frill, or bit of lace, removed. If one is very strict, the long, suffocating vail must hang over the face for a prescribed period. There is a certain season during which it must remain pinned to the back of the bonnet, and then it may be gradually shortened and finally removed. White or gray may gradually be mixed with the sable costume. This indicates the coming of spring after the winter of sorrow. At last a touch of lavender, or even a bit of lilac, may be put on. And then comes colored clothing, and a person is said to go "out of mourning." And by and by, oh! sad fate of humanity, this must all be done over again when God takes another one out of the circle.

Many insist that it is a mark of respect for the dead, but we are inclined to think that we show a profounder respect when we carry our sorrows in the silence of our own hearts. Why should a broken heart flaunt its bereavement in the streets, butcher shops, stores and street cars? We like the sentiment of Jean Paul: "We hang the sweet images of those we love in the silent chambers of the soul. They are not parlor pictures for every one to look at. Only with the loved do we care to talk of loved ones. We let them into our holy of holies."



THE LATE HENRY WARD BEECHER.

Close of the Legislature.

At 2 o'clock last Saturday the Legislature of California, after a session of 69 days, closed its career. It may be said in the mixed metaphor of the Hoosier preacher, as he stood by the coffin at a funeral, "We have here, brethren, a standing monument and living example of the frailty of all mundane things." The closing hours of both houses were characterized by the usual noise and hurly-burly of a protracted session. In the Senate were introduced 445 bills; in the Assembly 569, a total of 1014. Out of all these, 219 passed both houses and were enrolled and sent to the Governor, and up to the date of adjournment the Governor had approved 134, vetoed two, and has till the 24th to consider the remainder. Of most of those he has on hand, about one-half are for claims and deficiencies, the remainder are emendations of the codes. Not including the printing bill, which is unusually large, the expenses of this Legislature are simply enormous. The itemized account stands as follows:

FOR THE SENATE.

Per diem and mileage	$ 21,300 00
Officers and clerks	6,487 00
Contingent expenses	37,449 14
Total	$ 64,936 14

FOR THE ASSEMBLY.

Per diem and mileage	$ 40,851 00
Officers and clerks	7,089 00
Contingent expenses	38,709 51
Total	$ 86,649 51
Grand total	$151,585 65

The tax levy was fixed by the Assembly as follows:

For the thirty-ninth fiscal year:	
General fund	$3,225,000
School fund	1,600,000
Interest and sinking fund	200,000
For the fortieth fiscal year:	
General fund	$2,814,000
School fund	1,800,000
Interest and sinking fund	200,000

The appropriation for the schools has been increased by $800,000—$300,000 for the thirty-ninth year and $500,000 for the fortieth year. Much of the legislation was wise, judicious and needful, while the really vicious measures are very few, and some of them the Governor has most likely spotted. The County Government Act is a commendable piece of legislation; the road laws have been greatly improved; the Anti-Dynamite, the Pure Wine, McCudden's Messenger Boy bills will all be gratefully received by a law-abiding people. Many good measures have died on the files, but we can bear the loss with the knowledge that the Telegraph hill steal and several other suspicious-looking bills died with them. Wright's irrigation problem has been given an opportunity of solving a vexed question, and the Vincent Water Rights bill, and the Davis Injunction bill, and many others we have already summarized in the RURAL, are laws for the next two years certain, and whatever may be thought of them, they will at least constitute a good experimental basis for future legislation.

THE portrait of Henry Ward Beecher upon this page is a photographotype from a photo by Taber, taken at the time of Mr. Beecher's last visit to this State, in 1883. It is probably the best likeness secured of him at that time. Those readers who remember the portrait we gave of him in 1879, during a former visit, will note the advance and improvement we have made in the art of photo-engraving. Mr. Beecher's portrait will probably be acceptable to many who admire his greatness in talent and remember his public service.

San Jose Citrus Fair.

We continue this week a description of some of the leading features of the San Jose Citrus Fair, together with the biography of two of San Jose's leading citizens. The articles referred to, which may be found on pages 245-49, were contributed by our correspondent H. M. H.

Ramie Culture.

We have already made allusion to the possibility of a profitable business growing up in this State from the cultivation of ramie. Experiments in growing the plant have been eminently successful. The only reason why our farmers have not gone more extensively into the business has been the absence of a market for the product.

There is now, however, good reason to believe that a market will be established in this city, at an early date, if, indeed, it may not be said to be already established, where the farmer can turn the product of his ramie-fields into coin at a profit for his labor and investment.

The Western Fiber Co. has recently been incorporated, and has opened an office in this city, where the fullest information can be obtained in regard to everything pertaining to the culture of ramie and the sale of the plants or their fiber. Samples of the stalks and the fiber in the various stages of its manipulation up to woven goods may be seen there, and will be freely shown to every interested inquirer. The capital stock of the company is $2,500,000, divided into 50,000 shares of $50 each. Following is the Board of Directors, all well-known and responsible citizens: A. W. Foster, President; E. W. Newhall, Vice-President; Geo. C. Hickox, Secretary; Reuben H. Lloyd, Walter S. Maxwell, George K. Porter and E. Scott.

This company is prepared to buy ramie stalks, dried, in the condition in which they come from the field; or where the plant is cultivated in sufficient quantities they are prepared to put the decorticating machine in the field and reduce the stalks to a merchantable article of fiber and purchase the same, either in the stalk or fiber, as may best suit the farmer, and at prices which, it is claimed, will return more than twice or even three times the profit that can be realized by cultivating the same ground in wheat. The market for the fiber is practically illimitable.

The industry which may be based upon this culture is almost unlimited in its possibilities, and the present state of the art of its manufacture has already made an advance from which it will no doubt soon take a pre-eminent position among the textile industries of the world. The world must be clothed, and the evidence is rapidly being developed that the article which will accomplish that purpose in the best and most economical manner is evidently ramie.

Up to a recent period the great drawback to the extensive manufacture of this textile has been the lack of a machine to properly decorticate the plant—to separate the fiber from its adherent woody matter and still more adhesive gum. Machines and processes have now been devised which seem to accomplish this work in a most complete and satisfactory manner. The company alluded to has already two machines in this city which do the work of decortication and place the fiber in the desired condition for bleaching and being reduced to a state of fineness, whiteness, and silkiness which cannot be equaled by the best sea island cotton.

Experiments have shown that there is probably no portion of the globe where the plant can be more favorably grown or more easily decorticated than in the dry central valleys of California. One of the great necessities for readily and perfectly depriving the fiber of its wood and gum is in most thoroughly drying the stalk and subjecting it to the action of the machine in the driest possible atmosphere. These conditions are more favorable in this State than perhaps anywhere else.

Of course no great progress can be made in the business in this State until the cultivation of the plant has been extended over quite a large area, so that it can be made profitable for the machines to go through the country, decorticating ramie as the harvesters and thrashers now go through our valleys to gather and winnow the wheat crop. We would advise all who may feel interested in this new industry to apply to the office of the Western Fiber Co., 215 Sansome street, for all needed information.

The Government Printing.

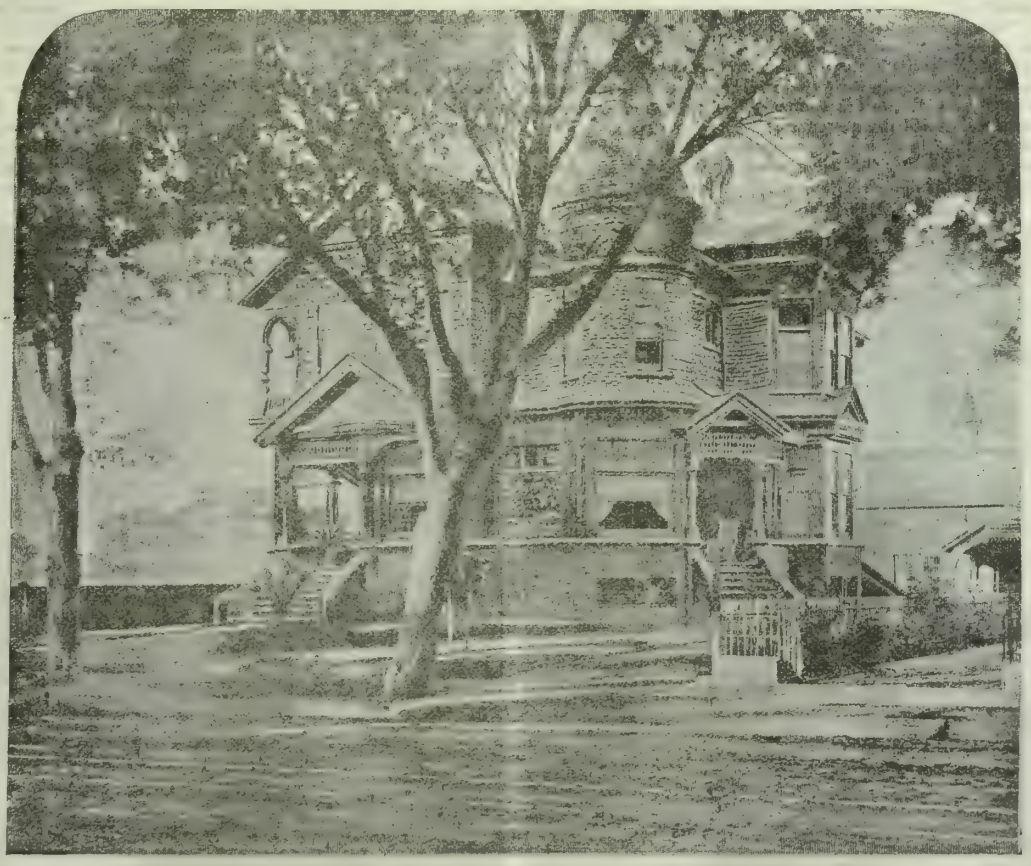
Perhaps few are aware that the United States Government is the greatest printer and publisher in the world. Every one who has made a hasty visit to Washington has come away with the vague impression that something immense in that line is going on. The real fact is greater than the impression. No one can form an adequate idea of the vast extent of the Government printing business until he takes time to examine it in detail. He must visit the Government printing establishment, a huge building looming up north of the Capitol. Here he will find that printing presses are counted by the dozens, type reckoned by the ton and paper by the carloads, and hundreds of men and women at work, day and night, type-setting, stereotyping, printing and binding, and the thousand processes incidental to such a business. The presses, type and material of all kinds are the best procurable. Uncle Sam keeps up with the times in utilizing the latest and best labor-saving mechanisms.

Then there are two large buildings to the south of the Treasury Department, almost under the shadow of the Washington monument, where our visitor will find the Bureau of Engraving and Printing. Here the fine work is done; the notes and stamps are printed and the Government engraving accomplished. It is an immense establishment, and a hurried walk through the rooms open to the public will show hundreds of men and women, boys and girls at work on splendid presses, costly material, and so much of the fine work as the public is allowed to see. Next let him visit the Government storehouse and take a glance at the tons of books piled up like cord-wood, and he will begin to have some conception of what the Government is doing. The aggregate number of Government publications now annually amounts to about 2,500,000, of which 500,000 are bound volumes.

If he cares to explore what comes of this vast mass of printed matter, he will find a deal of waste and extravagance. Most of the books and pamphlets published by the Government are intended for general distribution, and the theory is that they are sent as far as practical to the public and college libraries of the country. But it is safe to say that not one in ten are supplied with these publications, many of which are of great value to science and history. There is not a library in this State to-day that has a complete set of all the various public documents. One of our late Congressmen, having occasion to look up a matter in the *Congressional Record*, visited the libraries of San Francisco and the State Library at Sacramento and failed to find the number he wanted. This is owing to the defective and vicious system of distribution which depends largely upon the members of the two houses of Congress. Some of the members take pains to distribute public documents where they will do the most good, but the average Congressman regards them as official perquisites to be used where they make friends and influence votes. They are just as apt to go to a corner grocery or a city ginmill as to a public library. Many are too busy or too lazy to hunt up the people or libraries that would appreciate such publications, and find it easier to add to their cigar money by selling their shares to the brokers. Every one who has been to Washington and had occasion to look into the matter, knows that the brokers and second-hand book dealers carry on quite a lively local trade in these publications. Reports that cost the Government from 50 to 75 cents may be found at retail in the broker's shops at from five to ten cents a copy. There is no good reason why our public libraries should be so scantily supplied with public documents, for they may be had in abundance for the asking.

SPECULATION.—Recently, within the space of 10 days, oil declined 10 cents a barrel. As there are some 35,000,000 barrels in stock, this would represent $3,500,000 loss. Can this really be regarded as a loss, or is it a loss like that of the impecunious philosopher, who lost $100,000 in oil by not buying it when it was low and selling it when high? Could the holders of this 35,000,000 barrels have sold their oil when it was in the 80's if they had so desired? The market would have gone all to pieces had they made the attempt. Any one with money can put any market up, as Vanderbilt did the Harlem; the difficulty is in unloading. Speculation and making corners, especially in the more indispensable products, ought to be regarded as acts unworthy of an honest man, if not actually criminal.

BOILING ORANGES.—We have sometimes bought of an itinerant city vender oranges that looked extra fine and tasted infra vile; and we now suspect their deceptive charms may have been due to a practice described as follows in the Anaheim *Gazette*, which terms it "a new wrinkle in the chapter of fraud": Many street orange peddlers in S. F. resort to the practice of boiling their stock in trade, in order to increase its value as a salable commodity. An orange that has undergone the boiling process increases in size and improves in appearance generally, but it does so at the expense of its flavor, for it becomes worthless as an edible. They can generally be detected by the absence of any smut on the skin, the oranges looking as though they had each been the recipient of a careful hand-polish. Those who do not care to be victimized had better beware of an orange that is too clean.



RESIDENCE OF GEO. M. BOWMAN, SAN JOSE, CAL.

Send the "Rural" to Your Friends.

We request those who do not file the RURAL, that, after reading, it be mailed to other friends who are likely to be or to become interested in California. In this way the papers can be placed where they will do most good and the State in general be much more benefited than it could be by sending papers indiscriminately to addresses compiled without knowing the parties to whom the names attach. Each one receiving a copy of the RURAL can thus be doing very effective wooing for California, if he will mail it to a friend or acquaintance in some of the forlorn regions of the outside world.

Supposing that this is done, and this issue is sent broadcast, and thus brought to the attention of many new readers, we have a word or two in our behalf and in behalf of California. We advise all who can to come and see California. There is nothing like actual personal examination to give one trustworthy information, and this test of value California is always desirous of applying to herself. California captures at first sight, and holds her victims the faster by after sight—the longer the looking the less the desire to escape; in fact, the firmer the determination to remain. Those who cannot at the moment come for personal examination, cannot do better than read trustworthy accounts of the State, and such they will find in the RURAL PRESS. We have built our wide reputation upon the resolution not to exaggerate; our doctrine is that the truth about California is good enough for any one. We think a few weeks' reading of the RURAL will convince anybody of this fact; therefore we ask all new readers to send us their names as subscribers, even for a short period, on trial, if they desire. If they wish special information concerning facts to be presented in our columns, let them write direct to the parties mentioned in connection with the statements, and thus bring themselves into direct communication with the parties themselves, who are doing the things described.

Beside our effort to do nothing but trustworthy service for California, we can commend our paper as a clean newspaper, every line of which can be trusted to a child to read, and an honest paper, withal, in which we strive not to mislead, either in text or advertisement. Says one of our readers whose letter is just at hand:

> I am just in receipt of a letter from a friend in Colusa county to whom I sent a copy of the RURAL. He says: "We are subscribers to the RURAL, and our opinion is that it is the best and cleanest agricultural sheet on the coast;" but that is nothing new to you, it is the *general opinion*.

Thus we commend our effort to all new friends, trusting that any favor they may show us may bring them in return trustworthy information, pure entertainment and elevating themes for contemplation.

An Architectural Beauty.

The accompanying engraving is an illustration of the elegant residence of Mr. Geo. M. Bowman, Superintendent of the Golden Gate Fruit Packing Co. Located on First, near Empire street, in the city of San Jose, it has a most pleasant and desirable situation.

Mr. Bowman and his estimable wife, after making a study of residences in San Francisco and Oakland, combined the most attractive features observed, and, as a result, designed a model of convenience and architectural beauty. No two windows, doors or chimneys are alike, and no skill or expense was spared in either the exterior or interior finish. The house, which is modern in every particular, contains 13 rooms, every one of which is well lighted, a bath-room and a basement. The cost was $12,000.

Mr. Bowman, who is justly proud of a home so beautiful, believes it to be the handsomest mansion, for its size and cost, in the State.

PLACERVILLE has an incorporated Humane Society, and the *Republican* bespeaks for it hearty support.

SNOWSTORMS last week in Ireland, Scotland and the north of England were reported as very severe.

Leading San Jose Citizens.

Hon. B. D. Murphy.

Hon. B. D. Murphy was born in Canada, March 1, 1841, and, accompanying his grandfather, father, and the rest of the Murphy family, removed to Missouri, and afterward, in 1844, to California.

He was one of the founders of the San Jose Woolen Mills, of which he was a stockholder until 1881. He was also interested in the Angora Robe and Glove Factory, and is president of the Commercial and Savings Bank.

In 1869 Mr. Murphy married Annie McGeoghegan, and they have five children living and two deceased.

Mr. Murphy's father and grandfather, both of whom bore the name of Martin, were extensive land-owners. He himself is also a large land-owner and quite wealthy.

He was educated for the bar, but the large property interests of his family prevented him from entering upon the practice of his profession. He has always taken an active part in the politics of the county, and is regarded as one of the leading Democrats—not of this section only, but of the State. Twice a member of the Legislature, once in the Assembly, and again in the Senate, he proved intelligent, active and efficient. The State Normal school and other public institutions established in Santa Clara county owe their location here to the efforts of this zealous representative. Mr. Murphy was for three terms mayor of San Jose, and in this responsible position gave satisfaction to the entire community.

In every instance his election was against decided party majorities, both in city and county, and it is very well understood that for "Barney" to run for a position is to secure it. The Democracy of the State have long had Mr. Murphy in view as an invincible candidate for Governor, and whenever he shall express a willingness to accept the position of standard-bearer of the party, it is likely to be awarded him. He is an eloquent and effective speaker, one of the most enterprising and public-spirited of citizens, and generous and kind-hearted of men. These qualities have given him a measure of popularity second to no one else in this section of the State. Santa Clara county is justly proud of him, and will never miss the opportunity of showing her appreciation of his numberless good qualities.

Hon. C. T. Ryland.

This gentleman was born in the State of Missouri in the year 1827. His father, a leading lawyer of that State, was for many years upon the Supreme Bench, and there established a reputation second to none for integrity, ability and industry.

The subject of this article came to California in 1849, and after a brief sojourn in Monterey established himself permanently in San Jose, entered upon the practice of the law, and soon attained a position in the very front rank of his profession.

In politics Mr. Ryland is a Democrat, though he gave the Union cause his earnest support through the war. In 1868 he was elected to the Assembly, and that body chose him Speaker. By his ability, promptness and impartiality in this arduous position he commanded the respect of all, and at the close of the session received a flattering testimonial.

Judicious investments have placed him among the wealthiest of our citizens, and of late years he has wholly withdrawn from legal practice. He continues, however, to take an active interest in politics, less from motives of personal ambition than from a sense of the duty incumbent upon every citizen interested in good government.

He has been frequently spoken of as a candidate for U. S. Senator, for which he is eminently qualified. If ever he attains this honorable goal, it will certainly be upon his merit alone, and not by any methods to which the most scrupulous could take exception.

In 1853, Mr. Ryland married the daughter of Governor Burnett, and has reared a family of sons and daughters who are proving themselves, in every walk of life, worthy descendants of their illustrious and honored parentage.

Mr. Ryland is vice-president, and his sons members, of the Society of California Pioneers.

The Bank of San Jose.

History and Standing of a Prosperous Institution.

The Bank of San Jose was established in March, 1866, under the firm name of Knox & Beans, and two years after, on January 31, 1868, was incorporated as a State bank, being the first incorporated bank in the State outside of San Francisco, and the pioneer bank of San Jose. From its foundation to the present time the management has been under the direction of T. Ellard Beans. Its bank building is one of the finest in the interior of the State. It is situated at the northeast corner of Santa Clara and First streets, and in dimensions is 90 by 100 feet, containing, in addition to its spacious banking-room and offices, five large stores on the first floor and a number of offices on the second and third floors. The rental value is over $1200 per month. Connected with the banking-room is a double burglar and fire-proof vault, the cash vault being also provided with a five-ton burglar-proof steel safe. The construction of the building was first commenced in 1871 and completed and occupied early in 1872, the total cost of the lot and building amounting to $120,000. The Bank of San Jose has had a prosperous career, having paid 220 dividends since the date of its incorporation, these dividends aggregating 278 per cent on paid-up capital. Its present standing and officers are as follows:



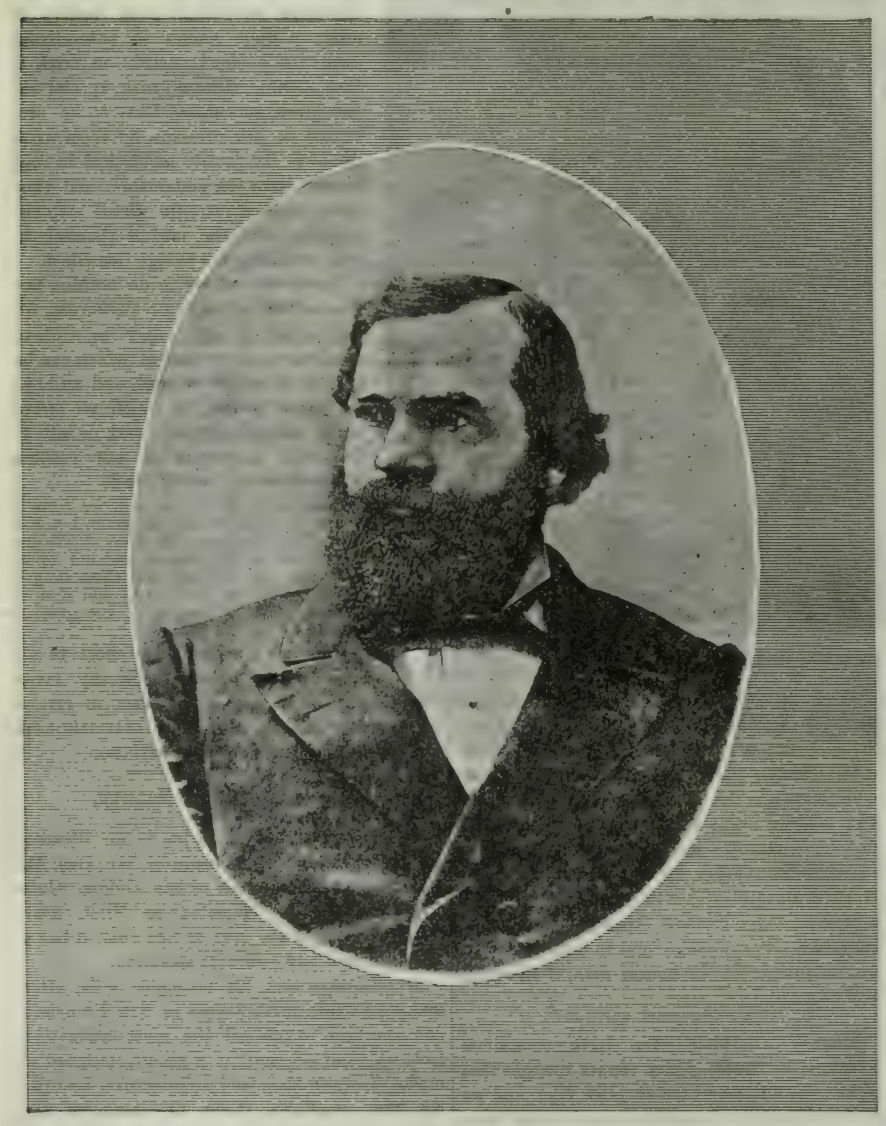
BANK OF SAN JOSE, SAN JOSE, CAL.

FINANCIAL STATEMENT.

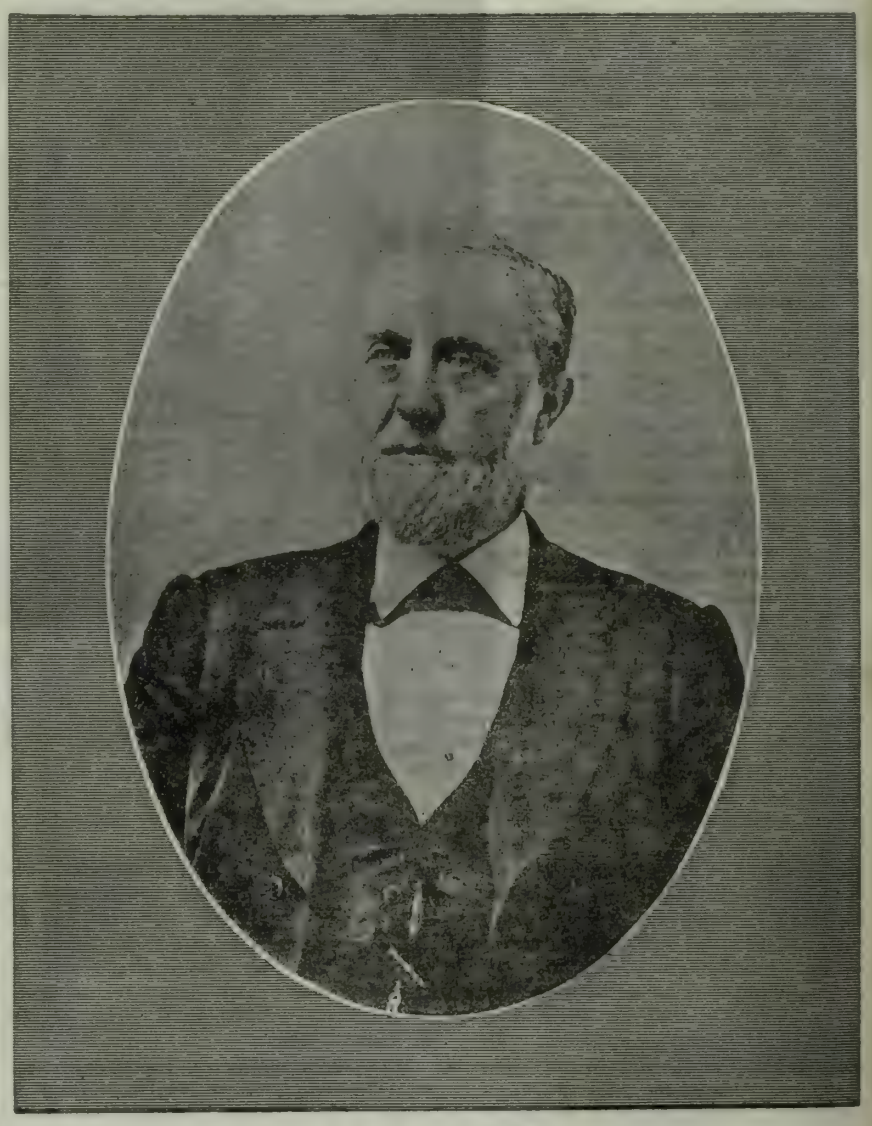
Capital stock paid in full	$200,000
Surplus and profits Jan. 1, 1887	137,166

Officers—T. Ellard Beans, president and manager; C. T. Park, cashier; John T. Colahan, assistant cashier; C. W. Pomeroy, secretary.

Directors—T. Ellard Beans, John T. Colahan, W. K. Beans.



HON. B. D. MURPHY.



HON. C. T. RYLAND.

HORTICULTURE.

On the Preparation of the Prunes of Agen.

[An essay by M. Henri Issartier, Senator from Gironde, read the 19th of May, 1886, before the Society of Agriculture of Lot and Garonne; translated from the French by W. G. Klee and read at the meeting of the California State Horticultural Society Feb. 26, 1887.]

It must be considered temerity on my part to come from Gironde, the promised land of vines, to talk to you about the prune here, where its culture is one of the most abundant resources of the agricultural wealth of the region. It would be temerity if I could not as an excuse present the following reasons: The circumstances of my life have made me a Girondin, but my family belongs to your department, and I was born at Miramont, where in my youth I became well acquainted with the production of the *d'Ente* prune. I have also become an owner in the canton of Monsegur, near Duras, and have made important plantings of prunes, and have learned to cultivate, to prune, and to cure them in a very economical manner. I have myself established large nurseries, and have thereby distributed over 100,000 prune trees in my region. I have written a little book on the cultivation of the prune. Finally, by my advice and example, I have had the good fortune to see the commerce in prunes at Monsegur increase greatly. There, in good and bad years, there were sold only 100 kilos. of prunes. Now the sale reaches 1200 metric centals.

I ask pardon for all these details—a little personal, perhaps, but they seemed to me necessary, in order to convince you that I am not a theorist, rather a practical man, willing to study with you, in a scientific manner, how to solve this question so important to us—the curing of the prunes of Agen. We are continually talking of the burdens upon agriculture. Unfortunately these are too real, and are due to complicated causes. Conspicuous among these are the lack of agricultural education and agricultural appliances.

We must maintain our place in the prune market, and with this in view we must perfect

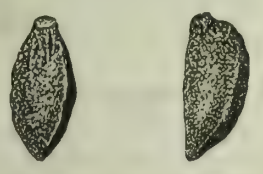
the culture of the prune, and the curing of the fruit. With reason, people concern themselves about foreign competition which is threatening our prunes. Here I quote some correct and interesting statements for which I am under obligation to the Director of Agriculture and to M. Bruneau, merchant at Marmande:

The prunes of Hungary are preserved as a marmalade.

The Prunes of Bosnia and Servia

Are the staple of an important trade. In 1884–5 the crops of Bosnia have been from 350,000 to 400,000 metric centals, and for Servia 250,000 to 300,000. It is especially to America, and there especially to New York, that the prunes from Servia and Bosnia are imported—in 1885, 550,000 metric centals being sent to New York alone. In 1883–4 the prices have varied from 9 francs to 22 francs per 100 kilos (about 80 cents to $2 per 100 pounds). In 1885 the crop has been of better quality and the prices have been higher, from 21 to 36 francs per 100 kilos (about $2 to $3 per 100 pounds). The principal markets in Bosnia are Bresca, Raesa, Schamatz, Siegawaltz; and in Servia, Schabatz, Abrenswatz, Belgrade and Semendria. The commercial center for prunes is Buda Pesth, which ships to Paris and all other points on the globe; but the trade tends to go over Ratisbonne, which ships by way of Trieste. The prunes of Bosnia of which I show samples are superior to those of Servia, being much larger and sweeter, and furnishing fruit varying from 140 to 110 to half a kilos.

Since the merchants of Buda Pesth have used our driers they have reached a high degree of perfection in the preparation of prunes, so that the only mode of distinguishing between the prunes of Agen and those of Bosnia is to compare the pits of the two, these being of different form.



D'ENTE. BOSNIAN.

The engravings show pits of prunes, growing 75 to the ½ kilo. The pits of the Bosnian prunes are much more bulky than those from Agen. The dorsal and ventral rim of the latter appear as the half of an oval. In the pit of the Bosnian prune the dorsal rim is straighter and the ventral much more rounded.

But few of the Bosnian prunes have been imported into Lot and Garonne, where the principal dealers have agreed not to buy them. However, the price of these prunes is less than that of those from Agen, about 15 to 20 to the kilo. (or 7 to 10 per pound); and a dealer in the department mixed the Bosnian with those of Agen, and was fined 1000 francs by the local court of your arrondissement.

The prune of Bosnia is less sweet than that of *d'Ente;* its flavor is less agreeable, and beside, it is not so fine in appearance. I have seen at Monsegur (Gironde) prunes of *d'Ente* of 30 to the half kilo (about 30 to the pound). The superiority of our prunes is affirmed officially by a jury of 16 members in Hungary, who unanimously reported our prunes to be finer, sweeter and of greater value than those of Hungary. With these advantages, it is easy to preserve the indisputable superiority of our prunes and to sell them at remunerative prices. With this in view, we must perfect the cultivation of the prune tree, as well as the curing of the fruit.

Propagation.

Many growers plant from cuttings. For two reasons I believe it to be preferable to cultivate grafted prunes. Among plantations of prunes there are trees which produce much finer and better fruit than others. And so, from these better trees, buds for propagation should be taken. With all trees, with prunes and vines, grafting assures advantages which must not be overlooked. I have learned recently that at Chalosse, before the appearance of the phylloxera, some owners there grafted French vines with French grafts, in order to obtain better products.

After we have grafted continually the French vines on American stock, it has been possible to prove that this grafting hastens and increases the production, that it advances the maturity and increases the strength of the vine. It is the same with the grafted prunes, of which the fruit is much finer, much earlier and sweeter. Likewise of great importance is the pruning of the trees, as everybody knows.

Now we come to the curing of the prunes, of which M. Adolph Magin, perpetual secretary of the Society of Science, Letters and Art of Agen, gives the most exact formula. By a curing well managed the superfluous water of the inner part is evaporated from the juices, and with moderate heat, sufficiently prolonged, the skin is dried. It is easy to understand that the oven is a defective apparatus with which to obtain this result. To cure fruit well it is necessary to let the heat penetrate all the parts, particularly the center, where the maturity is naturally less complete than at the surface. It is therefore indispensable that the surface remain easily penetrable by the heat, which should reach the center of the fruit and proceed, uniformly increasing, until it reaches nearly 100°. In the oven the temperature is apt to be too high at the beginning of the curing, and liable to cool off suddenly. Besides, the exterior of the prune receives altogether too actively the effect of the heat. It becomes shrunken and less penetrable; the center accordingly always receiving less heat, and therefore it is evident that the pulp and the seed are less cured than the skin, so that when the pulp is well cured the skin has had too much heat. The small fruit is reduced to a pit covered with a black parchment, and if the large and picked prunes cured by little heat preserve their good qualities, yet through the excessive drying of the skin they will lose a part of the weight which should have been retained. Nevertheless the ovens have given and are giving good service, but have lately become insufficient for large cultivation, and it has been found necessary to use means more expeditious.

To-day you will visit several driers exposed for competition. I am convinced that they are working perfectly, still I do not know them sufficiently well to describe them, but allow me to explain to you a very simple and economical apparatus which I have been using with complete satisfaction for 20 years. It was exhibited at the World's Fair of 1869, and the International Jury, of which M. Boussingault was president, thought it well, after the report of Baron Thenard, to recognize in the arrangement new and very important advantages, which he encouraged by awarding a large silver medal. By means of a few lines drawn I shall quickly represent it to you. I have no intention other than to bring my grain of sand to the edifice of progress, and I shall be happy if it should aid in suggesting a superior apparatus which will render successful any effort of agriculture.

The Heater.

The fireplace is a casting of a thickness of 0m. .01. It is composed of a fireplace proper, one meter long (about 3 feet 3 inches) with a width and hight 0m. .30 (nearly 12 inches). In section it is a kind of a half circle. The inner part or base is a grate formed of triangular tubes and contiguous on which the fruit is placed, and between which the ashes fall into the basin below. The air in the grate and all around in the furnace is heated gradually. None of the heat of combustion is lost, and the heated air surface is proportionately large. The heat in the ash-basin reheats the air in the tubes of the grate as well as the partitions of the ash-basin, which is a casting and in one piece with the grate.

On the outer face of the fireplace the doors are arranged independent of each other—one for the fireplace and one for the ash-basin. The door of the fireplace is entire and serves only to introduce the fuel. The ash-door has a hole in it to admit the air destined to feed the fire, and this air must come into the fireplace underneath the grate. The door-frames are surrounded by a large casement to protect from the heat the bricks or stones, which otherwise very soon suffer much. In the rear part of the fireplace is set the cast-iron chimney, which forks immediately into two arched passages running almost horizontally around the furnace, in order that the draught may not become too strong. This arrangement produces the effect of heating the air around the chimney as well as around the furnace. These chimneys unite again above, and in front of, the fireplace, so that there is but one chimney passing vertically upward, in front of the apparatus.

The interior of the drier is of bricks, laid on the flat side and cemented by a mixture of sandy earth and horse or cow manure. The bricks must be arched on the outer and inner edge, of a size of about 0m. .15 (about five and one-half inches). In this way a proper cylindrical construction is obtained within and without.

Hot-Air Reservoir.

All around the fireplace is made a wall about 0m. .25 distant (about 10 inches) to about the hight of the fireplace. Now is commenced an arch of bricks which covers it, but always at a distance of 0m. .15 (about five and one-half inches) at least. In this manner is obtained an air reservoir constantly heated by the fireplace; a reservoir which passes all around the double chimney, and thus the air is continually heated as it passes around until it enters into the drier, drawing after it the cold air that passes through the air holes, which are circular passages 0m. .10 (about four inches) in diameter, opening at the rear of the wall and at the side of the ash-basin. The hot-air galleries surrounding the chimneys are covered again with small arches, which, together with the arch above the fireplace, forms the base of the interior of the drier, in which the prunes are placed; this base is constantly heated and at the circumference the hot air comes through several openings, arranged at the beginning of the partitions, made of bricks laid flatly.

If the construction would end here, the hot air would enter at the base of the drier, and we should have all the inconvenience of the ordinary drier, in which the hot air enters below, rises quickly and goes out, without having been fully used. To avoid this waste, a second inner partition is constructed of brick, set on edge and laid in plaster, at a distance of 0m. .10 (about 4 inches) from the first partition, and in such a way as to have likewise two concentric cylinders—one formed by the partition of flatly laid brick, the other by the bricks set on edge. By this means, the hot air is forced to pass above the drier. It penetrates easily and evenly, because the inner partition reaches only to the ceiling, which rests on the exterior partition. Under the function of the drier I shall explain the advantage of this arrangement.

A Revolving Rack.

For a long time this arrangement has been in use in driers and is very convenient. It is composed of a vertical axis formed of several layers, on which are fixed horizontal triangles, braced with wire, forming in this manner 6 shelves, on which may be placed 60 trays covered with prunes. By means of a pivot resting in a socket in the center of the bottom of the drier, the rack turns easily. It is set in such a way that in its revolutions all the shelves present themselves successively at the door of the oven, which is large enough to admit the trays, but only just large enough, so that as little heat as possible shall be lost during the putting in and taking out of the trays. The door, which is best of double thickness, ought to be of wood, this being a poor conductor of heat.

Trays.

It seems to me that wooden trays should be abandoned. Our trays are composed of a light wooden frame covered with wire. On this wire grating rest the prunes, and so in a manner are suspended in the hot air. The wire is very fine. Besides suspending the fruit in the hot air, the iron wire is a very good conductor of heat.

Experience has proved to us that on these trays prunes are cured two hours earlier than on wooden ones.

Evaporation Passages.

The hot air which enters above, passes below saturated with moisture. In the partition made from the bricks placed edgewise on each side of the oven, there is reserved an opening at the base of the interior of the drier. These two openings are from passages between the two partitions, through which the vapors rise to escape outside. In these passages are placed two zinc valves worked from without, and by means of these the vapors are prevented from passing out when the chamber is used as an oven, but are allowed to escape when it is used as a drier.

The interior of the oven is closed by a wooden ceiling, or better, by large bricks resting on iron girders. To have everything complete it is necessary to have a large number of shelves around the oven and on top, these destined to hold a large number of trays.

It is hardly necessary to say that prunes must become perfectly ripe before being cured, and that if soiled, they must be washed and placed on the trays a long time if possible before being cured. All these precautions are well known and generally taken by careful cultivators.

Function of the Apparatus.

The prunes must be placed on the trays in single layers, and if possible, without being in contact one with another. In theory it seems advantageous to place large and small prunes on separate trays, each size by itself, but in practice this sorting is tedious and the work is not needed, because all the fruit ripens in two to three weeks, and so it is necessary to use the quickest process without jeopardizing the final results.

The trays covered with prunes are placed on the shelves of the revolving rack in the oven, and after having closed the evaporation ventilators, heated mildly at first—at the most 50° C. Thus the heat penetrates mildly to the pit without puckering the skin of the prune. The pulp is cured evenly and is transformed into a kind of marmalade without marring the shape of the fruit; the skin becomes brown and forms itself into small, even wrinkles. Afterward the heat is gradually increased without passing 70° C., and then we begin to open the ventilators and air mouths (closed until now) in order to let the vapors escape and to let in the dry air reheated around the furnace and chimneys and forming a continuous current, which enters from above, fills the upper layers, descends below between the prunes through the wires, filling the space evenly and permeating every part of the oven.

The prune is thus heated through and dried on all points of its surface, because it rests only on a wire, which, besides being a good conductor itself, heats the fruit, and every prune being diminished in size finds itself completely isolated.

From the second story the current passes to the third, descending until it reaches the last, where it finds the evaporation galleries, through which, saturated with moisture, it escapes to the outside. Little by little the heat is augmented by opening afterward the evaporation checks. Finally the oven becomes drier, the prunes become black and shining. At last, without allowing it to pass 90° C., a rapid current of hot air is established, giving to the fruit the last heating, by which the curing is accomplished, and there is given that black varnish sought for in commerce.

Now the trays from the upper story must be taken away, as they contain cured prunes that by a longer stay would become dried out, losing thereby some of their weight. The trays in the lower stories of the drier, however, contain fruit less cured, therefore these are placed on the upper shelves, and are again replaced by fresh prunes. The trays taken out are set upon shelves to wait until cool. This work done, the imperfectly cured fruit is placed on trays so as to have it put back into the drier. This handling, apparently very easy, requires, like all industrial pursuits, a certain knack. If the fruit is heated too much or too quickly, the prunes above become shrunken, the skin leathery and burned, the vapor inside inflates them and they lose in value.

With this drier a woman may cure about 70 kilos. (about 154 pounds) of prunes, but if a great sale or an abundant crop demand it, there can be cured by more labor, and by heating night and day, 100 to 120 kilos. (220 to 264 pounds) in 24 hours, with much economy of fuel. This result may be facilitated by utilizing the heat ordinarily lost through the ceiling and chimneys, by constructing above the oven another exactly like the one below, and in which a revolving rack is placed with six tiers of shelves, and supporting, likewise, 60 trays. The prunes placed in this inclosure are dried and cured without any additional expense of fuel. A very economical drier is obtained in this way, and the prunes may reach a complete curing if the heat be kept up day and night. Prunes cured in this way, so that the pulp is a marmalade of a saffron-yellow color and the seed well cooked, lose less of their weight than those cured in ovens. There is thus obtained of dried prunes 35 to 40 per cent of the weight of the green fruit.

This is the drier which we believe might be called the "economical drier," because all the castings and the iron rack do not cost more than 170 francs (about $32.50), and the material is of but little commercial value; the trays are well made and durable for a cost of 1½ francs (about 30 cents) apiece, the fuel costs but little, and, finally, the curing is rapid and perfect.

Finally, the prune *Robe de Sergent* or *d'Ente* prune is superior to all others for yielding the best and finest-looking fruit. It is thus easy, by careful culture and by good preparation of the fruit, to preserve for our region great commerce in prunes.

[California readers will be disposed to smile at the small capacity of this drier, which is given at the outside 264 pounds of finished prunes in 24 hours, by working day and night, and this would make the prunes cost about one cent per pound for labor alone. The principles involved in the arrangement of this drier may, however, be capable of application on a larger scale and thus be adaptable to an apparatus rather more Californian in its dimensions and capacity.—EDS. PRESS.]

Resurrected Fruit.

EDITORS PRESS:—I send you a sample of dried fruit that is represented to be Green Valley or Sebastopol fruit. We understand that it is dried fruit which is bought cheap in San Francisco, sent to this place to be overhauled and worked over by Chinamen, and then resold as Green Valley fruit.—J. W. K., *Sebastopol, Sonoma Co.*

The fruit is a very shabby and inferior lot of stuff, and we do not wonder that the residents in Green Valley do not like to have the name of their district attached to it. Concerning the operation to which our correspondent alludes, we find the following in the Santa Rosa *Republican* of last week:

A sample has been brought to the *Republican* office, from Sebastopol, of dried fruit put up in that place by a certain person, which he puts upon the San Francisco market as "choice Sonoma fruit." The sample is of plural and fraudulent kind. The boxes are so packed that layers of good dried fruit at top and bottom are made to conceal a mass of rotten, very unwholesome stuff in the center. It is a vile fraud, a criminal swindle. The rascal who is engaged in the swindle ought to be prosecuted and punished. By his shameless fraud he is working discredit to Sonoma county dried fruits and corresponding harm and loss to Sonoma county fruit-producers.

CANINE SCENT.—Careful experiments on the sense of smell in dogs have been made by Geo. J. Romanes, who has communicated the results to the Linnean Society, of London. He finds that not only the feet but the whole body of a man exhales a peculiar or individual odor which a dog can recognize as that of his master amid a crowd of other persons; that the individual quality of this odor can be recognized at great distances to windward, or in calm weather at great distances in any direction; and that even powerful perfumes may not overcome this odor. Yet a single sheet of brown paper, when stepped upon instead of the ground and afterward removed, was sufficient to prevent Mr. Romanes' dog from following his trail.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

BEER MORE DANGEROUS THAN WHISKY.—That is the verdict of the *Scientific American*, which sets forth that the use of beer is found to produce a species of degeneration of all the organs; profound and fatty deposits, diminished circulation, condition of congestion and perversion of functional activities, local inflammations of both the liver and kidneys are constantly present. A slight injury, a severe cold, or a shock of the body or mind, will commonly provoke acute disease, ending fatally in a beer-drinker.

Santa Clara Valley and Its Institutions.

[Written for the RURAL PRESS by H. W. H.]

EDITORS PRESS:—However picturesque any other valley may be, there is scarcely to be found, inhabited by a large number of people, a successful rival to the superb Santa Clara, embracing not only that which is generally so termed, but the scope of country included by the two spurs of the Coast Range and surrounding a large part of San Francisco bay.

From any of the mountain roads the view of the valley is enchanting, and from the one leading over the San Mateo mountains from Redwood City may be seen a panorama never to be forgotten. Taking a position near the summit, at an elevation of 1600 feet, one may descry 35 miles northward the city of San Francisco, and with a good glass may distinguish the Nob hill residences of Senator Stanford, Charles Crocker, Mrs. Mark Hopkins, J. C. Flood, and other prominently located buildings. The shipping in the harbor, Goat island, the moles of the C. P. & S. P. and S. P. C. railroads, the steam ferryboats crossing the bay, Oakland, Alameda, Haywards and sundry villages, make an impressive picture. At the right of this scene, rising to a hight of nearly 4000 feet, looms up the blue peak of Mt. Diablo, which, being visible as far as Red Bluff on the north and Visalia on the south, is the point whence a large part of the land in the State is surveyed.

At the base of the range from which we are observing is a continuous forest of live-oaks, above which peer the white buildings of Belmont, Redwood, Menlo Park, Mayfield, Mountain View and Murphys on the line of the S. P. railroad.

Rising like a huge white church out of a forest is the rural palace of J. C. Flood, near Menlo Park. Superb mansions, almost too numerous to mention, are scattered along the road—the homes of S. F. millionaires.

Eastward, enlivened by many a sail, lie the placid waters of San Francisco bay, on whose farther border is another line of villages, indicating the presence of another railroad—the S. P. C. Still farther eastward a mountain pass gives us the location of Niles, where the C. P. railroad emerges from the Livermore and San Joaquin valleys, one branch going to S. F. and the other southward.

These three lines of railroad converge to a point seven miles south of the head of the bay and 50 miles from San Francisco. At this point is San Jose, the heart of the beautiful Santa Clara valley. A more lovely picture can hardly be imagined. A city whose residences, public buildings, domes, and spires appear above groves of ornamental trees in the midst of a plain tessellated with small grain-fields, vineyards, orchards, and towns, is the center of a mosaic too exquisite for pen to delineate.

In the background of this beautiful picture lies a range of lofty mountains whose foothills are covered with thrifty farms and whose highest peak, Mt. Hamilton, towering nearly 4500 feet above the sea, is the site of the Lick Observatory. Already provided with a telescopic objective three feet in diameter, the largest in the world, this astronomical monument, to the memory of James Lick, one of Santa Clara county's pioneers, is destined to become the most famous of all observatories. With the world's largest telescope now approaching completion the observer will be enabled to pierce the ethereal realms of space to depths as yet unknown.

Looking westward, we behold a sight surprisingly unlike the beauteous valley. Almost inaccessible mountain ridges, densely covered with primeval redwoods, untouched by the vandal's ax, trend a dozen miles westward where rolls the majestic Pacific, relieved here and there by a coast steamer or a sailing ship.

The name of Ralph S. Smith, editor of the *San Mateo Times and Gazette*, should go down to posterity; for he has been the first to exclaim, "Woodman, spare those trees," and he proposes that the State shall buy this forest and convert it into a State park which in some respects would rival the Yosemite and the Yellowstone.

Other spurs which are more accessible have been partly denuded of their larger timber, and here and there may be seen the shingle mills' blue smoke floating among the dark-green redwoods and blending with the sky. In places the hills are bald and are utilized as dairy farms, with orchards of unusually fine apples for which this region is noted. Descending into the valley, we soon find ourselves on the 7000-acre farm deeded to the State by Senator Stanford.

Here affection has prompted the Senator and his wife to erect to the memory of their deceased son a monument after his own model, in the form of a great university. Senator Stanford has announced that within a year he will commence the construction of the buildings, which are to be of Moorish architecture and very beautiful. The possibilities of this university are almost beyond calculation.

Nearing the center of the valley, we find approaching completion at Agnews the Asylum for the Chronic Insane, and at Santa Clara the State Institution for the Care of Feeble-Minded Children.

The Santa Clara college, in Santa Clara, and the Convent of Notre Dame, in San Jose, are both conducted under the auspices of the Catholics. The former for boys, and the latter for girls, have become famous for their educational advantages. The University of the Pacific, which is under the control of the Methodist denomination, and the Garden City Commercial College, stand high in the confidence of the community.

People who are desirous of finding good schools in which to educate their children, should, before looking elsewhere, investigate those of Santa Clara county. Having the greatest Normal school, astronomical observatory and prospective university in the world, a system of thorough public schools and superior private and denominational seminaries, this county may become at no distant day the Athens of America.

The possible future of the region herein described is too dazzling to contemplate. When the capabilities of its soil are understood, and its varied industries are fully developed, the Santa Clara valley will contain and support 1,000,000 inhabitants. Considering its unequaled climate, its unexcelled productiveness and its surpassing beauty, it may be truthfully declared the most desirable place for residence on the globe—an earthly Paradise.

Here in San Jose we find the State Normal School, located in the center of what was formerly known as Washington square, occupying six blocks of the city. An imposing brick edifice accommodates over 500 students, instructed by the veteran educator, Principal Chas. H. Allen, and his corps of assistants. The teachers who are molding the characters of the future population of the State go forth hence, having received their inspiration from this school, which has become one of the greatest institutions of its kind in the world.

In every nook and corner of the county is found the *alma mater* of the people, the common school. For many years public instruction has been under the able superintendency of Mr. L. J. Chipman, who has raised the schools to a high degree of excellence.

Attending the public schools are 2000 children, under the tuition of experienced teachers employed by an efficient Board of Education, of which Deputy-Sheriff H. T. Welch is president, Supt. L. F. Curtis is ex-officio clerk, Geo. Lendrum, Wm. Erkson, J. W. Bowman, W. F. Foss, Geo. Ryder, A. R. Denike, and Dr. Geo. McCracken are members.

Five grammar schools and one high school occupy five handsome buildings, a fair sample of which is seen in our illustration of Empire-street grammar school.

At the last two annual sessions of the State Teachers' Association, the award for the best exhibit of school work was given to San Jose, the other competing cities being Oakland, Los Angeles, Sacramento and Stockton.



EAGLE AND BASKET—EXHIBITED AT THE SAN JOSE CITRUS FAIR.

J. H. Flickinger's Fruit.

J. H. Flickinger, of the "Pacific Orchard," near Berryessa, had a fine display of preserved and dried fruit at the San Jose citrus fair. The cannery being located in the orchard, none but choice fruit is preserved, and it is put up the same day that it is picked, thus retaining its freshness and flavor. His apricots, peaches, cherries and plums in glass, are unusually large, and attractively arranged in the form of a pyramid. His canned fruits, including apricots, lemons, cling and Crawford peaches, Washington and egg plums, white and black cherries, are of excellent quality. He exhibits a ton and a half of dried prunes in a huge box nine feet long, six feet wide and one foot deep. His apricots and prunes are for the most part sun-dried, and are claimed to be equal to any other dried fruit produced in the valley. The cannery will be enlarged the coming season to meet increasing demands. Excepting the remnant on exhibition, Mr. Flickinger's fruit crop of the past season has all been sold. Part of his canned and dried fruit finds a market in Philadelphia and Chicago, but most of it goes to England.



J. H. FLICKINGER'S EXHIBIT AT THE CENTRAL CALIFORNIA CITRUS FAIR.

Mr. Flickinger's orchard, three miles from the San Jose postoffice, contains 200 acres and consists of 20,500 trees, viz.: 7000 apricots, 7000 peaches, 4500 French prunes, 1000 cherries, and 1000 Washington and egg plums.

The oldest trees were set out near the close of 1880, and the youngest in the spring of 1886, the object being to supply the choicest canned and dried fruits for Eastern and foreign markets. His success has surpassed his most sanguine expectations—a crop having been gathered from all two-year-old trees.

From the "Pacific orchard" some large fruit has been taken; *e. g.*, peaches weighing from 8 to 15 ounces, and Moorpark apricots, from 2 to 4 to the pound. Santa Clara valley is certainly the home of the finest Moorparks which are raised here with greater success than elsewhere in the State. Being the best apricots grown, they find a ready market whether they are green, canned, or dried.

The orchard being in the warm belt, there is not frost enough to injure fruit.

Last season's crop amounted to 200 tons. Mr. Flickinger estimates his fruit crop the coming season from 17,000 trees at not less than 800 tons, which he will preserve in tin and glass, or evaporate. He is not a packer of other people's fruit, but all preserved by him is from

his own orchard. Realizing that his goods must be brought into competition with the products of European countries and the East, and that an attractive and convenient shape is of great commercial importance, he has established works in Berkeley, where he will manufacture his own flint-glass fruit-jars.

Eagle and Basket.

Back of the stage, at the Citrus Fair, was a dark screen, upon which is a spread-eagle made of a kind of yellowish-brown feather-grass, and bearing a bunch of calla lilies in its beak and a basket of oranges in its talons. Above the eagle is the word "Eureka," lettered in pampas-grass, while below is a model of a railway train. This work was executed by Mrs. S. P. Sanders, assisted by Mrs. A. Loomis, Mrs. D. C. Feeley and others.

In our picture it is represented for convenience so as to show the most effective leading characteristics of this rarely artistic work. It was located over the stage and attracted much attention and admiration. The design, not being in a favorable position for photographing, the engraving was made from a drawing, and could not, of course, be so accurate as our photographotypes.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MARCH 1, 1887.

358,589.—WASHBOILER—G. Bergenheim, S. F.
358,597.—GRAPE AND APPLE CRUSHER—A. David, S. F.
358,608.—BALE TIE—A. S. Hallidie, S. F.
358,618.—HOSE PATCH—W. H. Loomis, Alameda, Cal.
358,686.—DREDGER—W. H. Milliken, S. F.
358,630.—HEADER—C. M. & W. L. Slayback, Folsom, Cal.
358,502.—ROOFING MATERIAL—G. W. Swan, S. F.
358,584.—SUBWAY FOR CABLE RAILROAD—Vogel & Whelan, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

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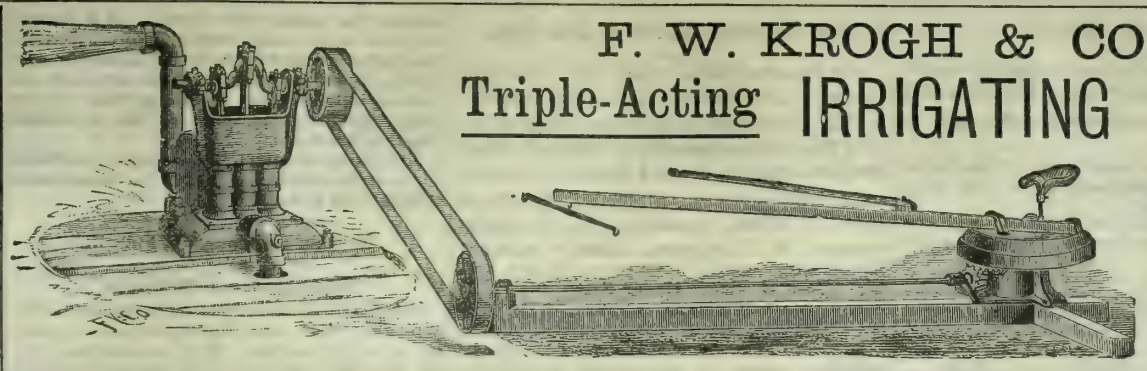
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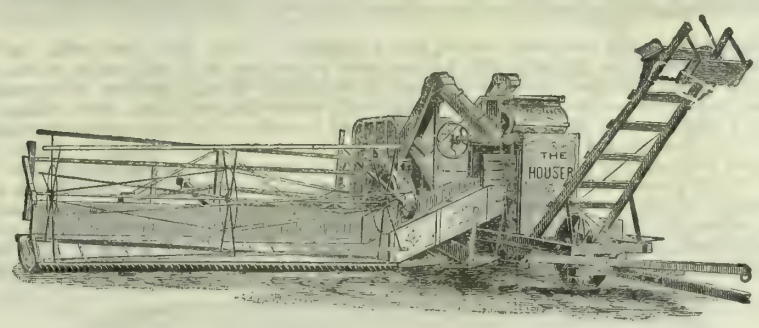


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Triple-Acting IRRIGATING PUMP.

There is no Pump in the market that will raise as much water, work as easy, with so little power, and at so small a cost, as this Pump. Send for descriptive Catalogue and prices to

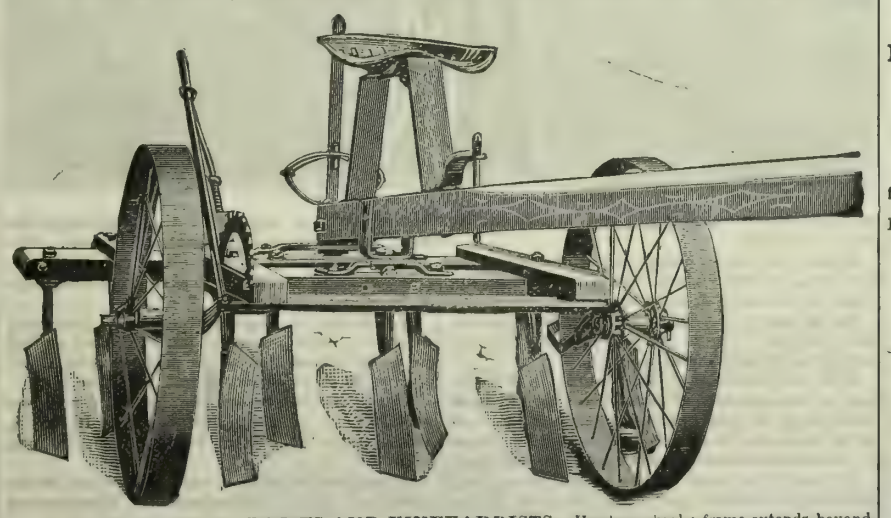
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PULL and PUSH, BELT and GEARED.
Houser, Minges, Shippee, and Powell
THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.
THE BEST KNOWN AND MOST POPULAR.
800 in Field Use and No Failures.
NONE EVER RETURNED TO THE WORKS.
HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886
They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.
They Cut, Thrash, Clean, and Sack
For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. They Save Three Bushels an Acre over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.
THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address
STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

"MOULTON'S" ORCHARD AND VINEYARD CULTIVATOR.



A BOON TO ORCHARDISTS AND VINEYARDISTS. Has low wheels; frame extends beyond the wheels, enabling close work and preventing the rubbing of bark off trees and vines. Has patent adjustable shovels and shifting tongue; the latter is valuable for side-hill work, and can be used to advantage on level ground. Give us a trial order. Manufactured by
SAN JOSE AGRICULTURAL WORKS, SAN JOSE.

C. M. H. CULTIVATOR.
Especially Adapted for Cultivation of Vineyards and Orchards.
This Cultivator is all Iron, A NEW MODEL, and an improvement over all others. The wheels are behind the Cultivator, the Spring Seat being so arranged that a man or boy can see all the workings, and can raise or lower the Cultivator with ease by his weight and the use of the lever. There is also a Side Lever for use on side-hills, or to run the Cultivator up close to trees not in line. Price of Cultivator, $35. Manufactured by
C. M. HENSLEY, Cor. First and Williams St., San Jose, Cal.

A NEW FRUIT EVAPORATOR.

A large number of fruit-growers who suffered heavy losses in past seasons, on account of their inability to bring their fruits to market from remote locations, or to otherwise handle the same to a profit, will be glad to hear that a most perfect machine for evaporating all kinds of fruits, potatoes, vegetables, etc., has recently been patented, and can be put to practical use this coming season. Its principal features of improvement on machines of this kind are: An ingeniously constructed furnace for heating the air rapidly with the smallest amount of fuel; a heat regulator which can be made to work automatically, and maintains the heat at any desired degree; and a suction fan which circulates the hot air through the apparatus, and returns it still highly heated to the furnace to be reheated. The material to be dried is placed on hollow shelves, through which the hot air passes, and being thereby subjected to any desired degree of heat from above and below, the water contained in it is quickly evaporated, leaving the fruit in a fresh and beautiful looking condition, without in the least impairing its flavor. The apparatus is constructed in such a manner that it can be taken apart or put up in a short time, and easily removed from one location to another. Either coal, wood, gas or any other fuel can be used. This is pronounced by practical fruit men the best evaporator made, and taking in consideration its cheapness of construction and perfect working, it is bound to take the lead of all machines of this kind.

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AMERICAN AND FOREIGN PATENT SOLICITORS, for obtaining Patents and Caveats. Established in 1860. Their long experience as journalists and large practice as Patent attorneys enables them to offer Pacific Coast Inventors far better service than they can obtain elsewhere. Send for free circulars of information. Office of the MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS No. 252 Market St., San Francisco Elevator, 12 Front St.

Holstein Record.

The following are the sworn statements relating to the Holstein-Friesian cow Lena Wit Menlo, to which allusion was recently made in these columns:

I am head milker at Frank H. Burke's ranch—La Siesta—Menlo Park, and have general charge of 93 head of Holstein cattle.

On the fifth day after the Holstein cow Lena Wit Menlo gave birth to her calf, I milked her dry at noon February 23d; I then milked her again at 7 o'clock P. M. and at 5 o'clock on the morning of February 24th and at 11 o'clock on the same morning. The milk of the third milking weighed (on the scales) 89 pounds, and was measured in the ordinary three-gallon milkcans and filled three of those cans and half filled another—equal to 10½ gallons. I have had full charge of this cow during the past year and know that since the 4th day of January she has not received any green feed, and at the time of the test was fed nothing but bran twice a day, with a pint of oilcake meal in each feed and dry uncut hay. (Signed) JOSEPH MILLER.

Acknowledged before Geo. T. Knox, Notary Public, March 9, 1887.

I am foreman of Frank H. Burke's ranch at Menlo Park and know that the cow Lena Wit Menlo gave birth to a bull calf on the 18th day of February, 1887; that on the 23d of February she was milked dry at noon and milked three times afterward within the following 24 hours, and gave on the third milking 89 pounds of milk which measured 10½ gallons. (Signed) JAMES MILLER.

Acknowledged before Geo. T. Knox, Notary Public, March 9, 1887.

THE LOTTERY SWINDLE AGAIN.—John G. Mervin makes this neat and terse statement in a recent issue of the Los Angeles *Times:* I have before me the prize-list of the Louisiana State Lottery for the drawing of last month, and as many people here purchase tickets every month, I thought it might interest them to know how fair a proceeding this lottery is. The list shows that they sold 100,000 tickets, at $10 each, making $1,000,000 in all; and by footing up all the prizes they pay the amount is $504,300, leaving the snug little sum of *four hundred and ninety-five thousand seven hundred dollars* ($495,700) as the profit to the lottery company for this one drawing. As this is repeated every month, it follows that the lottery company make a good thing out of the gullibility of the people who buy tickets. If a man should start a bank, agreeing to pay back just one-half of what was deposited with him, but also agreeing that he would put this half in one lump sum, and pay it to the depositor who drew a certain number out of a hat, none but fools would bank with him; but this lottery business is conducted exactly on this basis of paying back to certain lucky men just *one-half* of all moneys received for tickets.

DEATH TO MUD HENS.—W. McLachlan, of Staten Island, writes to the Stockton *Independent:* "Noticing in your paper of last Saturday an account of the damage done by mud hens to crops along the river, and having been myself a sufferer for many years from the pests, and having discovered a sure remedy, I feel it my duty to have it published for the benefit of my neighbors. Take large potatoes, cut them into slices about one-fourth of an inch in thickness, dust them over with pulverized strychnine, and lay the pieces about two feet apart on the land where the mud hens are accustomed to feed. Do this early in the morning for a few times and the whole band can be killed."

Some Folks

Have much difficulty in swallowing the huge, old-fashioned pill, but any one can take Dr. Pierce's "Pleasant Purgative Pellets," which are composed of highly concentrated vegetable extracts. For diseases of the liver and stomach sick and bilious headache, etc., they have no equal. Their operation is attended with no discomfort whatever. They are sugar-coated and put up in glass vials.

It is a Fact

Well established that consumption, if attended to in its first stages, can be cured. There is, however, no true and rational way to cure this disease, which is really scrofulous ulceration of the lungs, except through purifying the blood. Keep the liver in perfect order and pure blood will be the result. Dr. Pierce's "Golden Medical Discovery," a purely vegetable compound, does all this and more; while it purifies the blood it also builds up the system, strengthening it against future attacks of disease. Ask for Dr. Pierce's "Golden Medical Discovery." Take no other. Of druggists.

Decline of Man.

Mental or organic weakness, nervous debility and kindred delicate diseases, however induced, speedily and permanently cured. For large illustrated book of particulars, inclose 10 cents in stamps and address, World's Dispensary Medical Association, 663 Main street, Buffalo, N. Y.

PREPARING LAND FOR IRRIGATION.—For the purpose of irrigation the land must be brought to a smooth plane surface, free from ridges and knolls that would divert the water from any portion of the soil. To get this desired surface has been a serious difficulty hitherto, because of the want of necessary implements. Various machines have been used, but none have given perfect satisfaction until the "ACME" Pulverizing Harrow, Clod Crusher and Leveler was tried. This implement, following a plow, or working upon stubble land, draws the soil from every small elevation into the adjacent hollows and fills them with soil; and by working the land both ways a very even surface is procured, upon which the water channels may be laid out with a plow with great ease. The soil is left by the "ACME" furrowed by a number of small channels by which the distribution of the water over the land is perfect. See advertisement on page ——.

The Farmers' Union of San Jose.

The Farmers' Union of San Jose, a corporation doing a mercantile business, was organized in 1874 by members of San Jose Grange, No. 10. The working capital is $175,000, of which $150,000 is paid-up stock, $14,000 is a reserve, and $11,000 a contingent fund. The officers are C. T. Settle, president; W. M. Ginty, manager; W. C. Andrews, assistant manager. The directors are L. F. Chipman, Horace Little, Thos. E. Snell, C. T. Settle, J. Q. A. Ballou, W. L. Manley, J. A. Buck, J. M. Battee, C. W. Breyfogle.

The store occupies the ground floor of the building, which is an elegant three-story structure located on the northwest corner, and extends 60 feet on Santa Clara by 150 feet on San Pedro street. Besides, there is a cellar underneath of the same size, and a one-story building 160x40 in the rear, on San Pedro street. The latter has a floor made of cement and is used as salesrooms for agricultural implements. The Farmers' Union have a good two-story stable 40x36, a warehouse 250x40 for storing wheat, a two-story structure 90x60 for storing goods, and a mill for crushing barley and handling feed. All of the buildings are substantially built of brick, and are owned by the corporation.

Facing the corner entrance of the main building is the office, which is tastefully fitted up, much in the style of a bank.

Beside doing a general mercantile business, the Farmers' Union receives deposits for the accommodation of their patrons.

It is the intention of the company to maintain a contingent fund of at least $15,000, from which may be paid unforeseen expenses as well as an eight-per-cent dividend, should adverse circumstances cause a deficiency in the earnings.

The employes work on the co-operative plan, receiving a certain per cent, thereby giving them an interest in the business. The plan has proved very satisfactory.

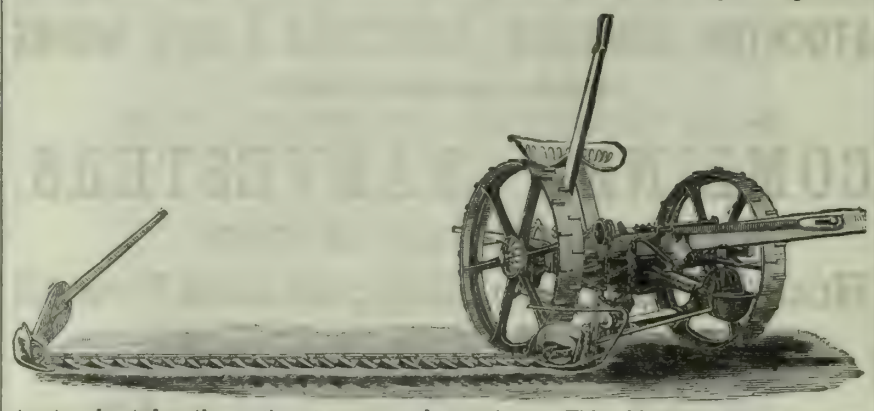
The Farmers' Union is the Pacific Coast agent for the Standard mower, which has been sold in different parts of the State to farmers who unqualifiedly praise it as being the best wide-cutting machine in the market. We call attention to the advertisement on page 205 of our issue of March 5, particularly because an error which occurs, there being but three sizes of the mower offered for sale, viz., 4 feet 3 inches, 6 and 7 feet. Alongside the pole there is an equalizing spring which partly suspends the weight of the cutting-bar. This contrivance lessens the draft and renders an unusually long-cutting bar entirely practicable. It is claimed to have much more cutting power, because nearly the whole weight of the cutter-bar and the inside and outside shoes is carried on the drive-wheels, thereby increasing the traction more than enough to make up the additional length of the knife.

The Farmers' Union, besides being profitable to the stockholders, has proved an inestimable benefit to its patrons.

Eureka Improved Windmill.

Patronize Home Industry.

San Jose is becoming famous for its windmills, and among them the Eureka Improved is taking a leading position. It is manufactured by Mr. Saunders, who has had years of practical experience. This, his latest mill, has more good points than any mill made on this coast. It is simple, strong, durable, self-protecting, easily controlled, requiring little oiling. The wheel is made on the most approved principles, peculiar to the mills made in Santa Clara county—open enough to get the full force of the wind and yet not confine it. Its action is *direct*, doing away with cams, vibrating bars and side motion, having no spider legs, little rods or flapping sections, sliding cranks or sub-vanes to get out of order. Mr. Saunders has plenty of testimonials in regard to the working of the mill, some of them very flattering indeed. One point of excellence in this mill is *it will face the wind* while in motion, not standing at an angle to the direction of wind.





Mr. Saunders expects to establish an agency wherever mills are sold on the coast, and all communications should be addressed to A. W. Hollis, 96 Montgomery street, San Jose.

The prices are reasonable, being, for 12-foot mills, $65 at the shop; 14-foot, $75; 16-foot A, $90; 16-foot B, $110; 18-foot, $120; 20-foot, $135.

All orders for mills should be directed to the inventor, E. B. Saunders, 96 Montgomery street, San Jose, Cal.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
R. G. HUSTON—Los Angeles and San Bernardino Cos.
GEO. MCDOWELL—Fresno and Tulare Cos.
M. S. PRIME—San Joaquin and Alameda Cos.
T. P. POWERS—Napa and Sonoma Cos.
J. L. DOYLE—Tuolumne and Calaveras Cos.
W. J. FREEMAN—Sierra and Butte Cos.
A. J. HARE—El Dorado Co.

Can Colds, Croup, Coughs, Cramps, be CURED? OH YES. PERRY DAVIS' PAIN KILLER Will do it every time. Your druggist sells it.

HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

J. R. CATES & CO. PROPRIETORS,
417 Sansome St. San Francisco

FOR SALE.

2240 Acres of land in Shasta Valley, Siskiyou county, Cal. Six miles from Montague. It is well watered with living springs, is fenced, has a house, barn and granary upon it. Two-thirds are suitable for cultivation and all is good grazing land. Price $25,000.

Also, 3240 Acres adjoining the TOWNSITE OF MONTAGUE. For further particulars, call, from 10 A. M. to 2 P. M., at room 2, 116 California Street, San Francisco, Cal., C. C. WEBB.

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. 20,000 acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS OF THE GRANGERS' BUSINESS ASSOCIATION, a corporation, for the election of a Board of Directors for the ensuing year, and for the transaction of such other business as may properly come before it, will be held at the office of the corporation, 108 Davis Street, San Francisco, at 10 o'clock A. M., Wednesday, April 13, 1887.

CHAS. WOOD, Sec'y. DANIEL INMAN, Pres't.

KNABE PIANOFORTES.

UNEQUALLED IN Tone Touch Workmanship and Durability.

WILLIAM KNABE & CO.

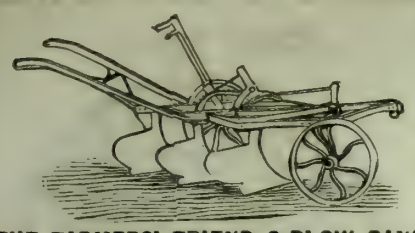
Nos. 204 and 206 West Baltimore Street, Baltimore. No. 112 Fifth Avenue, New York.

MACHINE WANTED.

Any person having a Bronson Pitts 40-inch Separator not over 2 or 3 years old, who will sell cheap, would do well to address

A. A. DICKIE,
Suisun, Solano Co., Cal.

For ORCHARDS and VINEYARDS.



THE FARMERS' FRIEND 3-PLOW GANG

Is a light, but strongly built gang, of 3, 9 or 10-inch bottoms; can be easily handled around hills or vines, and runs close to trees without barking them. Why use single plows in the orchard or vineyard, each requiring a man and one or two horses, when the FARMERS' FRIEND will do the work of 3 *single plows* and with *only one man and two horses?* Large numbers of these plows are in use here in California, and we refer to over 100 prominent fruit-growers who are using them.

PRICES GREATLY REDUCED. Address,

BULL & GRANT FARM IMPLEMENT CO.,

26 BEALE ST., S. F.

☞A Complete Line of Vineyard and Orchard Tools.☜

The WHITE IS KING

FOR FAMILY USE,

Dressmaking, Tailoring and General Manufacturing.

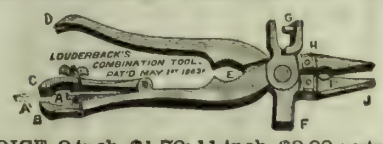
IN ITS GREAT RANGE OF WORK IT STANDS WITHOUT AN EQUAL.

THE LIGHTEST RUNNING,
THE MOST DURABLE,
THE FINEST FINISHED,
THE BEST SATISFYIN

WHITE SEWING MACHINE COMPANY,

108 & 110 POST ST., S. F.

The LOUDERBACK COMBINATION TOOL.



PRICE, 9-inch, $1 70; 11-inch, $2.00, postpaid.

Comprising 10 Useful Tools, as follows:

A, Adjustable screw driver; B, hand vise; C, wrench; D, nail puller; E, large gas plyers; F, hammer; G, leather punch; H, wire cutter; I, small gas plyers; J, pinchers. For use by Mechanics, Farmers, Manufacturers, Storekeepers, Housekeepers, and in all general work. A perfect tool, well made of the best materials.

Agents, OSBORN & ALEXANDER,

628 MARKET ST., - SAN FRANCISCO.

Mechanics' Tools, Hardware & Machinery.

☞Send for free Illustrated and Descriptive Catalogues and Price Lists of all our goods.

The BUYERS' GUIDE is issued Sept. and March, each year. ☞ 312 pages, 8½x11½ inches, with over 3,500 illustrations — a whole Picture Gallery. GIVES Wholesale Prices *direct to consumers* on all goods for personal or family use. Tells how to order, and gives exact cost of everything you use, eat, drink, wear, or have fun with. These INVALUABLE BOOKS contain information gleaned from the markets of the world. We will mail a copy FREE to any address upon receipt of 10 cts. to defray expense of mailing. Let us hear from you. Respectfully,

MONTGOMERY WARD & CO

227 & 229 Wabash Avenue, Chicago, Ill

J. L. HEALD'S

AGRICULTURAL WORKS,

Crockett, Contra Costa Co., Cal.

Stationary Engines and Boilers.

Portable Straw-Burning Boilers & Engines.

IRON AND BRASS CASTINGS.

Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery, including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

MISSION ROCK DOCK

AND

GRAIN WAREHOUSE,

SAN FRANCISCO, CAL.

75,000 TONS CAPACITY. 75,000

Storage at Lowest Rates.

CHAS. H. SINCLAIR, Supt.

Cal. Dry Dock Co., props. Office, 318 Cal St. room 3.

GRANGERS' BUSINESS ASSOCIATION,

SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL.

Warehouse and Wharf at Port Costa.

CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.
Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.

E. VAN EVERY, Manager. A. M. BELT, Assistant Manager.

ORCHARD AND VINEYARD

One-Horse Single and Two-Horse Gang Plows

— AND —

VINEYARD CULTIVATORS OF ALL KINDS.

These Plows are Guaranteed to be the Best Orchard and Vineyard Plows made. Read the Testimonials below.





The single plow can be set to any position, and can be run to or from the trees or vines and within an inch of them without any injury to the same. The handles are also movable, and can be changed from one side to the other to suit the circumstances. This plow has several advantages over all other Vineyard and Orchard plows. Among these are: By changing the beam, no matter to or from the land, the plow will always run in a straight line. By the revolving drop clevis, the plow can be set to or from the land, or in depth. With this plow a man can plow a straight furrow, when he could not with other plows where the beam runs across them. It works as well in adobe or gravelly soil as in sandy or loamy. The plow weighs about 50 pounds. This plow will fill a long-felt want among orchard and vineyard men, who fully appreciate its great value. Plow and Singletree patented May 17, 1884.



PRICE LIST.—Single Plows, with singletrees, $15; Gang Plows with Garden City Plow bottoms attached, $35; Doubletrees with Patent Singletrees, $4.50. Extra Shares, $3.00. Extra Shares can be had of me.

TESTIMONIALS:

HOLLISTER, Sept. 11, 1886.

J. A. BILZ—Dear Sir: I take pleasure in testifying to the good merits of the plow and harrow made by you, which I have used at my vineyard to my entire satisfaction. WM. PALMTAG.

RUBY HILL VINEYARD, PLEASANTON, CAL., July 24, 1886.

J. A. BILZ, ESQ., Pleasanton, Cal.—Dear Sir: Your two-horse Vineyard Gang Plow is a great success. It saves $2 a day over the old method of plowing, and is light in draft. We have two of them with which we turned under weeds this last spring over a foot high, and left the land in excellent condition. CRELLIN BROS.

CRESTA BLANCA VINEYARD, LIVERMORE, CAL., Nov. 27, 1886.

MR. J. A. BILZ—Dear Sir: I have tried several vineyard plows on my place, but none have given such good satisfaction as yours. I take pleasure in recommending it to those who desire good work done economically. CHAS. A. WETMORE.

FRESNO VINEYARD, April 9, 1886.

I have tried Mr. Bilz's double plow, and although very skeptical at the time, I must acknowledge it worked well, and I am much pleased with it. I have made up my mind to put them in the vineyard. D. D. HUDSON, Supt.

PLEASANTON, Sept. 9, 1886.

J. A. BILZ, ESQ.—Dear Sir: I take pleasure in recommending your two-horse Vineyard Plow which I know to be a success, having purchased three of them in plowing in the past season, in my vineyard. Undoubtedly, they are the best implement of the kind I ever used. They are light in draft. It turns the ground over well, and is so regulated you can plow any depth you desire, and it leaves the ground even. It also turns the weeds under better than other plows I have used. I have saved $2.50 per day on each plow. I would not be without the plow for twice their cost. Yours truly, J. A. ROSE.

LIVERMORE, August 1, 1886.

J. A. BILZ, ESQ., Pleasanton, Cal.—Dear Sir: We have used one of your Vineyard Gang Plows during the past season and believe it to be a good plow, doing the work in a thorough and economical manner, and can heartily recommend it to those wishing an implement of this kind. Yours respectfully, S. OSTERHOUT.

LIVERMORE, Feb. 1, 1886.

MR. J. A. BILZ—Dear Sir: I have tried your vineyard plow and find that it works well and gives perfect satisfaction, and I take pleasure in recommending it to any one who wishes a good vineyard plow. Your patent singletree is also a success, and when used in an orchard will save many a tree from being injured. Yours truly, F. KURTZ, Foreman of C. A. Wetmore's Vineyard.

Persons interested in Vineyards and Orchards are invited to call at my shop and examine and try the plow. It is warranted to do all claimed for it. For further particulars apply to

J. A. BILZ, Pleasanton, Cal.

TRUMAN, ISHAM & HOOKER, Agents, 421 Market St., San Francisco.

GRANGERS' CO-OPERATIVE STORE,

TENTH AND K STREETS, SACRAMENTO.



DEALERS IN

General Merchandise, Groceries, Agricultural Implements, Wagons,

CARRIAGES AND BUGGIES.

A New Deal.

We buy for cash and sell for cash. The old credit system has been abandoned. We will not be undersold. We guarantee all goods as represented. We will give good value for your money. Our motto is quick sales and small profits and speedy returns.

☞Farmers and consumers will find it to their interest to call and see us and be convinced.

E. GREER, Manager.

Banks and Banking.

GRANGERS' BANK

OF CALIFORNIA.
SAN FRANCISCO, CAL.

Authorized Capital, - - $1,000,000

In 10,000 Shares of $100 each.

Capital Paid up in Gold Coin, $645,360.

Reserved Fund and Paid up Stock, $21,178.

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CURRENT ACCOUNTS are opened and conducted in the usual way, bank books balanced up, and statements of accounts rendered every month.
LOANS ON WHEAT and country produce a specialty.
COLLECTIONS throughout the Country are made promptly and proceeds remitted as directed.
GOLD and SILVER deposits received.
CERTIFICATES of DEPOSIT issued payable on demand.
BILLS OF EXCHANGE of the Atlantic States bought and sold. ALBERT MONTPELLIER, Cashier and Manager.

San Francisco, Jan. 15, 1882.

THE GERMAN

Savings and Loan Society,

526 CALIFORNIA STREET,

SAN FRANCISCO.

Capital and Deposits, Jan. 1, '87, $14,362,960.

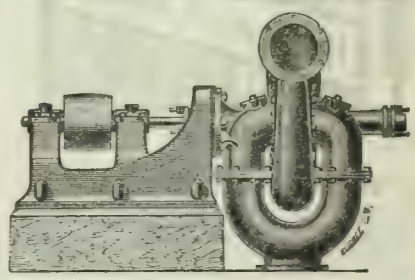
LOANS MADE ON REAL ESTATE IN THE COUNTRY

AT LOWEST MARKET RATES.

H. P. GREGORY & CO.

SOLE AGENTS FOR

WEBBER'S CELEBRATED



IRRIGATING PUMPS.

WE ALSO CARRY IN STOCK THE LARGEST LINE OF

MACHINERY

In the UNITED STATES,

Consisting of Wood and Iron Working Machinery. Pumps of every description.

ENGINES AND BOILERS

A SPECIALTY.

APPLEGATE'S

Cold Water Bleaching Soap

Was Awarded the First Premium at the State Fair at Sacramento, for the year 1886, UPON ACTUAL MERIT.

It can be used in Bath, Toilet or Laundry, and dispenses with Fuel, as no Warm Water or Boiling is Necessary! Beware of Cheap Imitations.

The Genuine is manufactured only by

J. J. APPLEGATE,

No. 12 Bush Street, San Francisco

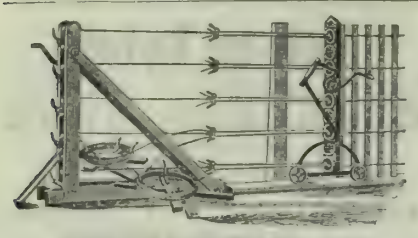
BEST TREE WASH.

"Greenbank" 98 degrees **POWDERED CAUSTIC SODA** (tests 99 3-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,

Manufacturers' Agents,

104 Market St. and 3 California St., S. F.



COME LOOK AT THIS!

The Great and Only Fence Loom!

Fully covered by patents. No danger of buying a lawsuit. We are now offering the public the best and cheapest machine in the field, because it will make more than twice the amount of fence per day than any of the so-called machines can make. Goes up or down hill with perfect ease. The loom only weighs 30 pounds, consequently can be handled by a child as well as a man. Neither are you compelled to pull any cumbersome track over the rough ground. All that is needed is a common board laid upon the ground. Estimates made for material when desired. Correspondence solicited with hardware men generally.

THOMAS D. POOLE,
1867 Encinal Ave., Alameda, Cal.

CANTATAS FOR FLOWER TIME!

Teachers of Juvenile Singing Classes do not need to be told of the intense interest and enthusiasm which attends the bringing out of a new CANTATA. The following are new, bright, pretty and easily given. Commence in time to prepare them.

VOICES OF NATURE; operetta; N. B. Sargent.

FOREST JUBILEE BAND; N. B. Sargent.

NEW FLORA'S FESTIVAL; Bradbury. Arranged by J. C. Johnson.

MERRY COMPANY, or Cadets' Picnic; Collin Coe.

Price of each book, 40 cents, or $3.60 per dozen.

The first two books are by a nature and music lover, who fills them with very sweet songs of birds, flowers, insects, etc. Flora's Festival, doubled in size, and with minute directions, will surely be a success, as will, in another way, the "MERRY COMPANY."

Our new edition of **VOICES OF PRAISE** (40 cts., or $4 20 per doz.), by Rev. C. L. Hutchins, is cordially commended to all who wish a **Sunday School Song Book** of the highest character.

Schools, Academies and Seminaries are always safe in adopting the carefully compiled **School Song Books** of Ditson & Co. We recommend for the higher schools, **SONG GREETING** (60 cents); and **ROYAL SINGER** (60 cents); for grammar schools, **SONG BELLS** (50 cents); and for primary schools, **GEMS FOR LITTLE SINGERS** (30 cents).

☞Any book mailed for retail price.

OLIVER DITSON & CO., Boston.

C. H. DITSON & CO., - - 867 Broadway, NEW YORK.

GO TO THE OLDEST and BEST

—1863— **PACIFIC Business College, 320 POST ST. SAN FRANCISCO.** —1887—

LIFE SCHOLARSHIP, - $75

Full Business Course.

SIX MONTHS' COMBINED COURSE. $75.

Including the Business Course, Academic Course, Modern Languages, Telegraphy, Shorthand, Type-Writing, etc. Ladies admitted into all Departments. Day and Evening Sessions during the entire year.

☞CALL OR SEND FOR CIRCULARS

Reasons why Sherwood's Steel Harness is the Best and should and will be Universally Used:

1.—It is a common sense Harness. 2.—It is made of material that will last a lifetime. 3.—In plowing, dragging, logging and scraping there are no whiffletrees. 4.—In all farm work you can change from plow to wagon quick. 5.—In plowing in the orchard, you can't bark fruit trees. 6.—In plowing and cultivating hops it has no equal. 7.—In plowing along the fences you can get two furrows closer. 8.—Horses cannot step over the traces, or calk themselves. 9.—A small boy will handle plow readily. 10.—There is no weight on plow beam. 11.—Team works one-third easier. 12.—There is no chafing, crowding or fretting of team. 13.—For man and team it has no equal. Do not hesitate, but order at once from your nearest agent. Address

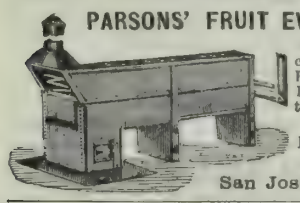
TRUMAN, ISHAM & HOOKER,
San Francisco, Cal.

CLIMAX SPRAY PUMPS.

To those in want of a first-class Spray Pump we can say that these Pumps are, without a doubt, the very best Spray Pumps to-day in the market. Made expressly for service in the Orchard, and the only Pump having all its parts valves, etc., made of non-corrosive metal, and has received the highest awards over all others for the past three years. Send for circulars and prices.

CLIMAX SPRAY PUMPS,
18 California St., S. F.

PARSONS' FRUIT EVAPORATOR.



A complete success! Fire Proof! Best and cheapest. For circulars send to

L. W. PARSONS & CO.,
San Jose, California.

EMPIRE STATE,
The Best White Grape.

Vines, 75c. and $1 each.

Cuttings, for grafting, sold only to parties in Pacific States; $1.50 per 10, by mail. GEO. R. KNAPP, Greenfield, Mass.

H. M. NEWHALL & CO.,

SHIPPING AND COMMISSION MERCHANTS,

309 and 311 Sansome Street, San Francisco, Cal.

Agents for Growers and Manufacturers. Charterers of Vessels for all Trades. Agents for the Mexican Phosphate and Sulphur Company's Products. General Insurance Agents.

Have correspondents in all the chief cities of the United States, Europe, Australia, India, China and the principal islands of the Pacific. Purchase goods and sell California products in those countries.

General Agents for the Pacific Coast of NATIONAL ASSURANCE CO., of Ireland ATLAS ASSURANCE CO., of London; BOYLSTON INSURANCE CO., of Boston, Mass

GRAND AUCTION SALE!

WEST COAST LAND CO.,

San Luis Obispo, Cal.

Incorporated March 27, 1886. CAPITAL, 500,000.

DIRECTORS.	OFFICERS.
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JNO. L. HOWARD.....San Francisco.	ISAAC GOLDTREE.....Vice-President.
ISAAC GOLDTREE.....San Luis Obispo.	R. E. JACK.....Treasurer.
R. E. JACK.....San Luis Obispo.	
C. H. PHILLIPS.....San Luis Obispo.	C. H. PHILLIPS, Secretary and Manager.

The WEST COAST LAND COMPANY now offering in subdivisions the

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

THE EUREKA RANCH,

Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

All lying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

Will sell

AT PUBLIC AUCTION

About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch**, consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

2100 acres of the **Huer Huero Ranch** in 20 subdivisions.

These are all agricultural and fruit lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara county, and require

NO IRRIGATION.

Title, U. S. Patent and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments, at 2, 3, 4 and 5 years; interest 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

An additional charge will be made of $5, for deed in sale of town lots, and $25 in other cases for expenses of sale, including making and recording all papers.

Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

SALE WITHOUT RESERVE,

Providing that no bid will be entertained at less than 60 per cent of schedule prices.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo. From San Francisco, take 8:30 A. M. daily train, S. P. R. R., to Templeton.

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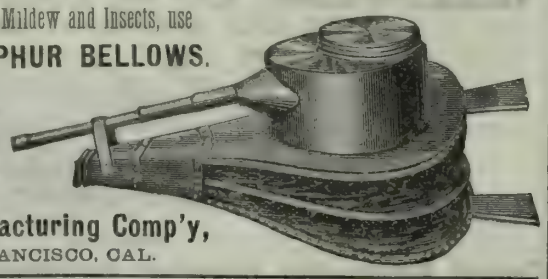
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The Smallpox Scare Subsiding.

So many and various reports, concerning the prevalence of smallpox in the southern portion of the State, have been flying for the last two or three weeks, that we believe a summary of recent authoritative statements on the subject will be welcome to our readers.

Dr. Tyrrell, Secretary of the State Board of Health, in his bulletin of February, dated March 10th, said:

It found entrance through our unguarded southern frontier, appearing for the first time in Los Angeles during the latter part of the month, in the person of a young man from Mexico, who quickly communicated it to others, until by the end of the month 12 cases were reported, with three deaths. On February 26th three cases were reported in Lugos, a Spanish settlement nine miles from Los Angeles. Three cases and one death were reported from South Pasadena. These cases were at once quarantined by Dr. W. B. Sawyer, the Health Officer. The disease, however, continues to spread among the Spanish and Mexican population, who refuse vaccination, and will not tolerate isolation. Upon the first appearance of the disease in Los Angeles, Dr. J. S. Baker, the efficient Health Officer, and Dr. H. S. Orme, President of this Board, lost no time in taking every precaution to prevent the spread of the disease by vaccination and strict quarantine of the exposed persons. In spite of their efforts the disease continues to increase, and will, no doubt, reach other parts of the State. In San Diego, one case of the disease was imported from El Paso, Texas. We learn through private sources other cases occurred at Perris, San Diego county. Dr. Magee, Health Officer in San Diego, writes that no information has reached him of smallpox in Perris, and says he has made arrangements to have immediate reports, if any cases occur between Colton and San Diego. One case reached San Francisco, which was speedily quarantined. No other cases are there reported. This board has taken the precaution, by a circular, to warn the public that its safety resides in efficient vaccination, and that no quarantine, no matter how faithfully attempted, can be certain to exclude the disease from traversing the whole State, once the invasion has taken place. In vaccination we have a preventive that is at once certain and safe. Smallpox cannot exist without unvaccinated, and therefore unprotected persons, upon whom it can thrive. Protect these by vaccination, and smallpox must become extinct.

On the evening of the 12th inst. the following official bulletin was telegraphed to the Associated Press:

LOS ANGELES, Cal., March 11, 1887.

For the information of the country the following official statement is made. Since the first appearance of smallpox here, out of a population of 95,000, including both city and county, there have been but 41 cases, out of which there have been only 4 deaths. Health authorities, both State and local, apprehend no epidemic. All precautionary measures are being taken. H. S. Orme, president State Board of Health; M. Hagan, City Health Officer; W. H. Workman, Mayor of Los Angeles; L. N. Breed, president City Council; Thomas E. Rowan, chairman Board of Supervisors; E. L. Stern, president Board of Trade; H. G. Otis, editor L. A. *Times*.

It appears that very many cases, supposed by the panic-stricken to be smallpox, turned out to be nothing worse than measles.

On the 13th, at the instance of the railroad authorities, Drs. Tyrrell, Cole, Simpson, and Crowder, members of the State Board of Health, went down to Los Angeles, where they were met by Dr. Orme, President of the Board, and made a tour of the city and suburbs. On the evening of the 14th, they met the city authorities to discuss the situation, which was found to be not at all alarming. Dr. Hogan, City Health Officer, stated that 20,000 persons had been vaccinated, and it was his deliberate opinion that nine-tenths of the people of the city were now entirely protected. Dr. Beverly Cole believed the disease might be at once throttled and stamped out. Dr. Tyrrell said to a *Times* reporter: "This matter of checking the smallpox turns very much on vaccination. When it has no material to feed on, it is bound to die out."

The majority of the State Board, Drs. Orme, Tyrrell, Cole and Crowder, have gone from Los Angeles to San Diego. Dr. Simpson, who returned to S. F. on the 16th, says he does not think that the disease will be epidemic and extend throughout the State if the Los Angeles local authorities exercise due diligence.

A NOVEL STOVE.—Mr. John Brierly, Newark, Onio, has patented an open fireplace heater and stove. It is said to be the first combination of the kind. Any kind of fuel can be used in it. The principle is the bringing of cold air from outdoors by a conducting pipe under the floor, and which is circulated between the body of the stove and the outside jacket. After this the air is taken through the two sides of the stove in another pipe which passes through the fire-chamber of the stove and through the top into the room.

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Views, Opinions, and Sentiments of Eminent Writers on Religion and its Relation to Man and Society. Address MISS HARRIET KELSEY, Sec'y, Unitarian Church, San Francisco. Correspondence invited.

Death of a Well-Known Stockman.

The firm of Miller & Lux, so widely known for the immensity of its estates and business, is broken by the death of Charles Lux, which occurred on the morning of March 15th, in this city. The following facts are given by one of our daily papers:

Mr. Lux was born in Alsace. He immigrated to New York City in boyhood. There he worked for a retail butcher in Fulton market for some years as delivery boy. He came to San Francisco in 1857, and opened a retail butcher shop at 931 Washington street. In this business he was very prosperous, and in 1862 he formed the partnership which was destined to continue auspiciously through the many long years to the close of his life. This was with Henry Miller under the firm name of Miller & Lux, as cattle dealers and wholesale butchers.

Shortly after this firm was established, it commenced the far-sighted policy of investing in public lands, or buying out early locators. It maintained this policy down to very recent dates, until now its landed possessions cover an area of 700,000 acres. These lie in the counties of San Francisco, San Mateo, Santa Clara, Monterey, San Benito, Merced, Stanislaus, Fresno, Tulare, Kern, and San Luis Obispo, in California; in the counties of Washoe and Humboldt, in Nevada, and also in Oregon. The cattle-herds of the firm, scattered in many parts of this vast territory, number between 70,000 and 80,000 head. The firm has an aggregate annual tax of $50,000, and the total value of its land, improvements and cattle is estimated to be (not a close estimate) $10,000,000. Over 700 miles of private telegraph lines connect their ranches.

Mr. Lux was 64 years of age at the time of his death.

A Fraud—Probably.

From a certain village in the Mississippi valley there has come to us the following business letter:

. . . . . .

————, March 9, 1887.

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P. S. Can furnish best of reference, if desired.

[ADVERTISEMENT.]

10c. pays for your address in the Union Agents' Directory, which goes to thousands of publishers all over the United States; and, in return, you will receive *magazines, books, papers, pictures, circulars, pamphlets,* and lots of mail matter and good reading from those who want agents. You will be well pleased with your small investment. Directory, containing your name, can be got at this office.

(Mention this paper.)

We have purposely omitted the name and address of the applicant, partly because we don't intend to give him a free advertisement just at present, though we may do so later, but chiefly because we strongly suspect him to be a confidence-swindler, planning to fool credulous men, women and children out of their dimes, or to flood them with immoral circulars, or encourage and abet in defrauding publishers, by inducing them to send costly printed matter to "agents" who are not, and have little or no intention of becoming, agents. We fear he is one of those who would tempt thousands to baseness and falsehood, and deprave many, if he can thus get a few dishonest dollars for himself. In short, we guess he ought to be at hard labor in the Illinois penitentiary.

If any other publishers have had experience with or knowledge of this party, we would like to hear from them. We will give his name, if properly requested.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date,* IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Mar. 10-16.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.01	63	S	Cy.	.00	67	Cm	Fr.	.00	67	Nw	Cl.	00	69	W	Cl.	.00	84	W	Cl	.00	66	Nw	Cl.
Friday	.26	49	S W	.	00	63	N	Cl.	.00	64	S W	Cl	*.—	58	W	Cl.	.00	75	W	Fr.	.00	58	N	Fr.
Saturday	.00	52		Fr	.00	65	N	r.	.00	66	S W	Cl.	.00	57	S W	Fr.	.00	70	S W	Fr.	.00	58	Nw	Fr.
Sunday	.30	53	S	Cy.	.00	57	S	Cl.	.00	60	SE	Cl.	00	55	W	Cl	.00	62	W	Cl	.00	58	Nw	Fr.
Monday	.02	52	S	y.	.00	66	N	Cl.	.00	61	N w	Cl.	.00	55	NE	Cl.	.00	69	W	Cl.	.00	59	N	Cl.
Tuesday	.70	55	S	Cy.	.00	69	N	Cl.	.00	64	N w	Cl	.00	65	N w	Cl.	.00	75	S	Cl	.00	58	Nw	Cl.
Wednesday	.01	62	S	Fr.	.00	68	N	Cl.	00	68	S W	Cl.	*.—	54	W	Fr.	.00	66	W	Fr.	.00	57	Nw	Cl.
Total	1.30	....	....	...	00	....		....	00	....	....		*.—	....	....	....	.00	....	....	....	.00	....	....	....

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

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We desire to give our readers every advantage in obtaining useful books at the most favorable rates attainable. We offer below a number which we believe will be found acceptable to many readers of the RURAL, and the reduced prices at which we can furnish them to our cash-in-advance subscribers—POSTPAID—will place them within the reach of many.

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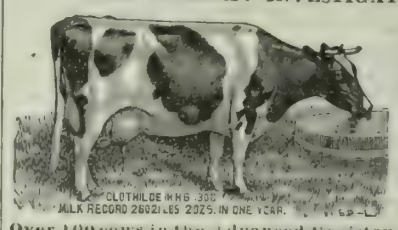
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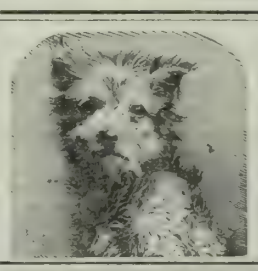


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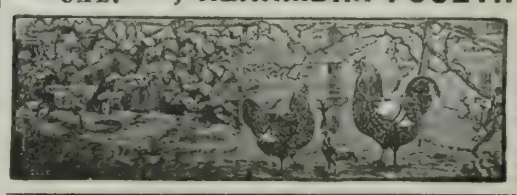
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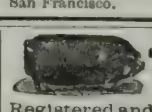
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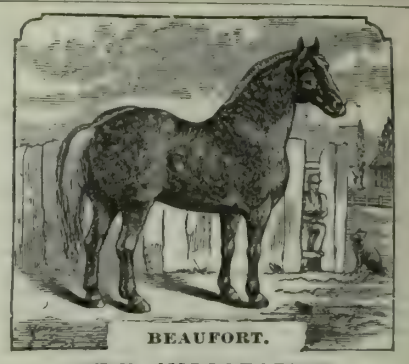
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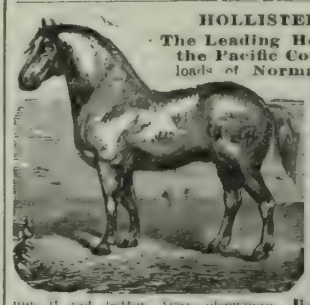
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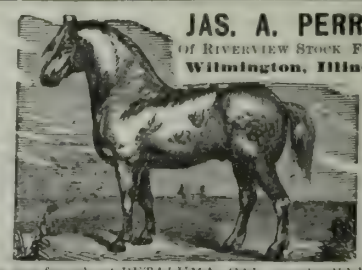
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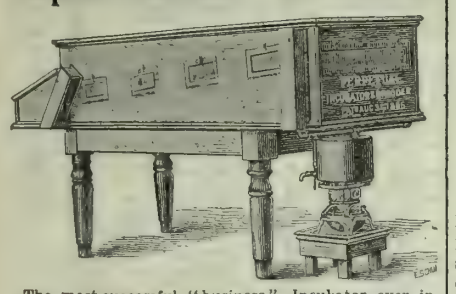
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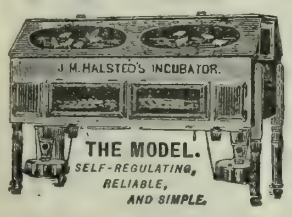
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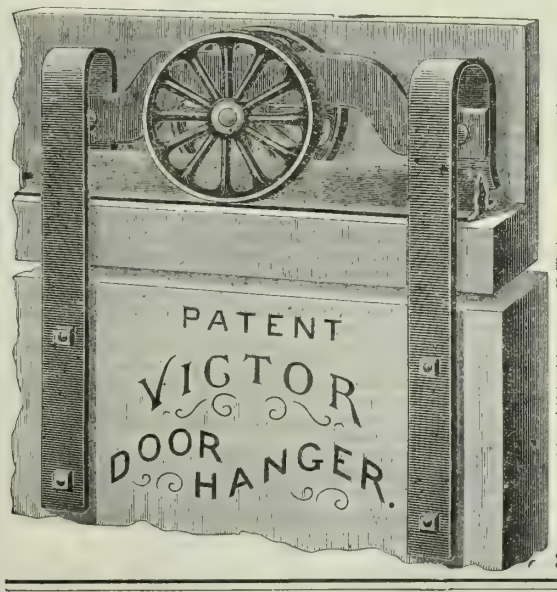
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 16, 1887.

The past week has witnessed a fair degree of activity in all lines of produce, particularly in cereals. The fine weather has improved the general outlook of crops, although more rain is wanted in several of the counties. In wheat the week has been barely steady abroad, with to-day's market cabled as follows:

LONDON, March 16, 1887.—Cargoes off coast, buyers hold off. Cargoes on passage and for shipment, buyers hold off, hoping to obtain some concessions. California wheat, off coast, 37s 3d. California wheat, just shipped, 38s 3d. Liverpool wheat, spot, quiet. Liverpool wheat, California, 7s 5½d@7s 8½d.

Foreign Review.

LONDON, March 14.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: The supplies of native wheat are sparing. Trade in the provinces is firm and prices have advanced 6d@1s. The sales of English wheat during the past week were 43,442 quarters at 32s 7d, against 64,422 quarters at 29s 9d during the corresponding week of last year. Flour is steady, notwithstanding large foreign arrivals. Foreign wheat is steady and quiet; American Red Winters are 6d better. Foreign flour is steady. Corn is regular; mixed American is scarce and tending upward. Oats are dull. Linseed has declined 9d. Four cargoes of wheat arrived; one was sold and four (all Californian) remained. To-day's market for wheat was quiet and unchanged. Flour was in large supply and weaker. Oats were 6d cheaper.

Eastern Wheat Markets.

NEW YORK, March 13.—Wheat opened on Monday heavy and lower, but a good export demand set in, and the decline was recovered. On Tuesday the market became irregular and unsettled under the influence of radical and constant fluctuations at Chicago, where considerable excitement prevailed, owing to the bull movement. May options which collapsed on Thursday on heavy selling, on Friday and Saturday ruled comparatively easy, and the downward tendency was stayed. Spot closed ¾@1c lower, and futures, 1⅛@3¾c lower for the week. March, 90¾c; April, 91½c; May, 92¾c; June, 91⅝c; July and August, 90½c; September, 91⅛c.

CHICAGO, March 16—1 P. M.—Wheat, moderately firm; cash, 75⅞c; May, 81 1-16c.

New York Hop Market.

NEW YORK, March 13.—Business continues slow, and the demand fails to show the least improvement. Where any pressure to urge business is shown low prices are the rule, and foreign goods keep so much below prices at which domestic goods are held that very few sales of the latter are made. Pacifics, 1886, best, 20@22c; do common to good, 16@19c; do 1885, good to prime, 8@10c.

California Products at New York.

NEW YORK, March 13.—California honey continues in light supply, and the market is strong in consequence; quoted at 5c.

Seeds dull, nominally steady. California yellow mustard, 3¾@4½c.

Crops at the East.

CHICAGO, March 13.—The *Farmer's Review* will print the following crop summary in this week's issue: The weather for the past 10 days has been very favorable for growing winter wheat, and reports from the entire wheat belt continue encouraging. Rains and light snows in Kansas are reported to have caused improvement of growing grain in certain portions of that State, and improved the general outlook which was becoming discouraging. In sections of Michigan and Wisconsin the fields are still protected with snow and nearly all reports from those two States continue to be favorable. In Ohio, Indiana, Illinois, and Missouri the reports indicate that the crop is in a very promising condition, and unless subjected to freezing weather within the next three weeks, promises to emerge from the winter siege with unusually good prospects.

California Fruit in Chicago.

CHICAGO, March 12.—Oranges in fair supply, arrivals the past few days having somewhat increased. Choice, sound fresh fruit meets with fair sales and rules steady, but there is still more or less old and common stock sold, and this is rather easy. California bright, $1.75@3.25; Navel, $2.75@4.

California dried fruits are about steady and sales fair. Prunes, French, ₱ lb, 7@9c; Plums, pitted, 10@11c; Peaches, halves, do, 11@12½c; do, halves, pared, 20@21c; Figs, 6@8c; Nectarines, 9c; Pears, 8@12c; Raisins, London layers, 20-lb boxes, ₱ box, $1.35@1.40; loose Muscatel, ₱ box, $1.25@1.30.

Eastern Wool Markets.

NEW YORK, March 13.—The wool markets show little animation. Buyers still have the advantage in prices, but they generally adhere to the hand-to-mouth plan of purchasing. Sales of the week included 20,000 pounds Eastern Oregon at 22c; 10,000 pounds unwashed Western at 33c; 20,000 pounds Territory at 18½@22c; 9000 pounds scoured, do.; 20,000 pounds Montana and 25 000 pounds Mexican on private terms. California northern quoted at 20@36c; do. fall, 14@17c; California southern spring, 14@18c; do. fall, 11@12c.

The Boston market continues easy and in buyers' favor. California wool is unchanged. Last week there were sales of fall wool at prices ranging from 42 cents for scoured burry to 56@58 cents for free wool. Territory wool is quiet and very easy. Fine scoured Territory has been offered as low as 56 cents. Oregon wool has been sold with considerable freedom, but prices have fallen somewhat. Among the sales are 55,000 pounds of California at private terms; 100,000 pounds of fall scoured at 50 cents; 79,000 pounds of fall wool at private terms; 25,000 pounds of Oregon at 17 to 22 cents; 24,000 pounds of Valley Oregon at 27 cents; 35,000 pounds of Roseburg, Or., and 150,000 pounds of Oregon at private terms; 6000 pounds of coarse Territory at 20½ cents; 50,000 pounds of Montana at 24 cents; 8000 pounds of black Territory at 21 cents; 17,000 pounds of Territory at 17 to 25 cents; 24,000 pounds of fine Territory at 19 to 20 cents; 10,000 pounds of fine Wyoming; 60,000 pounds of Territory and 50,000 pounds of fine Territory at private terms.

The Philadelphia market shows little change. Buyers are operating cautiously and concessions are frequently made to influence business, but many holders have refused bids within one cent of the asking prices for good-sized lots. Agents' sales are: 1000 pounds of Montana medium at 28 cents: 2000 pounds of Oregon medium at 30½ cents; 30,000 pounds of Oregon fine at 28 cents; 10,000 pounds of Territory ⅜ at 27½ cents; 2000 pounds of Territory medium at 23 cents; 3000 pounds of Territory fall at 21 cents; 10,000 pounds of Territory fine at private terms.

PHILADELPHIA, March 15.—Eastern Oregon fine, 16@20c; New Mexican and Colorado, coarse, 14@16c.

BOSTON, March 15.—Wool is steady; Eastern Oregon, 16@22c; choice Valley Oregon, 25@27c.

Dried and Canned Fruit at the East.

NEW YORK, March 13.—Raisins are neglected and quotations entirely nominal. California loose Muscatels, three-crown, quoted at $1.40@1.50; do. London layers, $1.50@1.70.

Prunes—Turkish are in limited request at 4⅞@5c. French, weaker at 7½c.

Currants are strong, owing to limited offerings, being quoted at 4½@4⅝c for new.

Canned Goods—The demand is fair, and the market steady. Corn is inquired for, but as the stock is greatly reduced, strong views are entertained by holders. Tomatoes are dull but firm. California canned peaches, $2.25; pears, $2 25; plums, $1.75@2.00; tomatoes, $1.75@2.00; and apricots, $2.10.

Local Markets.

BAGS—The market is easy at a lower range, under stronger outside selling. Calcutta, standard size, is 6 cts spot and 6¼ to 6½ for June-July delivery.

BARLEY—The market made a sharp advance on Monday last, followed by a slight shading this morning, with a strong closing this evening. The demand is improving, with stocks only fair for the season. On Call, transactions the past week were fair, with a strong upward movement reported.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 6¾@7c; wethers, 7¼@8c.

LAMB—Spring, 12½@15c.

VEAL—Large, 5@7c; small, 5@8c.

PORK—Live hogs, 4¾@5½c for heavy and medium; hard dressed, 6@7c per lb; light, 4½@5c; dressed, 6¾@7¼c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

BUTTER—The market is lower and weak at the decline, under stronger selling and freer receipts.

CHEESE—A further concession in prices is reported, owing to the demand being only fair and receipts large, as also the supply to draw from reported quite heavy.

EGGS—Heavy receipts from the West, and also of Californian, have demoralized the market, causing consignees not to refuse a bid when anywhere near the selling price. As higher freight rates go into effect on April 1, it is thought that the West will send very little to this market.

FLOUR—No advance is established, yet owing to the high cost of wheat, an early advance is looked for in this market.

WHEAT—The market holds to strong prices, with buyers trying to break prices to a lower level; but as stocks are well concentrated, they meet with poor success. On Call, trading was only fair. The bears made a raid, sending values off, only to be followed by better prices.

{COMMUNICATED.}

Market Information.

Cereals.

Mail advices from Europe report the stocks of wheat very light, with holders offering sparingly. It is claimed that both England and France will have to import very heavily so as to have their home consumption met. Even with free importations, present advices do not warrant us in expecting that either the English or French reserves will, on August 31st next, be up to the general average of reserves at that date for several years past. The general tenor of advices is to the effect, that owing to the high speculative market in the United States, English buyers take as little from this side as possible, confining their bulk of purchases to other supply countries, whose harvests come in December, January and February. Even if this be correct, yet eventually foreign buyers will have to fall back on this country, for the surplus in the other countries will soon be exhausted, and with signs of a rapid depletion under large shipping orders, speculators will take hold and send values up on a par with the United States markets. The papers are filled with reports and rumors of the wheat deal at the East, and express great surprise and ignorance regarding how and who are the controlling spirits. In October last this paper published a telegram from Chicago, outlining the deal which we herewith reproduce: "The most important piece of commercial news of the week is the report that the grain market has formed a money pool, and has gone into the business of dealing in spreads between England and America on a wholesale scale, or what amounts to the same thing, buying and shipping California and other wheats, and selling in this market against their purchases in California, at the Atlantic seaboard or in England, where carrying charges are 10 to 13c less than on this side of the Atlantic. The legitimate profit on these spreads is large enough to be tempting but concentrated speculative holdings of wheat in store, abroad or on passage, controlled by a combination of leading operators here, puts the breadstuffs market of the world practically in the hands of a few men and arms them with leverage sufficient to advance or depress prices at will. In theory it would seem that this combination could break the English markets any time by pressing their wheat for sale, or force prices to advance by causing the artificial scarcity. How the plan will work when put in practice on a grand scale, remains to be seen. A club which may also be used as a lever, reaching from California to Liverpool and worked from Chicago, is a spectacle worth contemplating. The combination is said to own considerable lines of wheat in English warehouses already, and a large amount en route from the Pacific slope to Europe, and to have its machinery in complete working order. The scheme is certainly not without its attractions."

No other paper on this coast had the enterprise to get the news, or if they did, they repressed it so the ring could manipulate the markets. This paper is not controlled by any ring or persons, and therefore aims to give news by which its patrons can make money. On the date the above was published buyer season wheat in our market was $1.41 per cental, and cash or sample wheat, $1.35 per cental; last week buyer season wheat sold at over $1.70, and spot or cash up to $1.68¾. In the local market the past week witnessed strong prices, notwithstanding decided bear raids on Call. The supply in the State, it is now claimed, is less than heretofore estimated it would be in this month, and as the stock is well concentrated, prices can be maintained at almost any figures holders wish.

The barley market has ruled strong and fairly throughout the week. Stocks are fairly well concentrated, and as the consumption, owing to increased railroad building, is quite large, no lower range in values is looked for previous to harvest. Buyers, as a rule, confine their purchases to actual wants.

The corn market shows continued strength, but no marked advance is reported. The demand the past week is said to have improved, causing holders to offer more sparingly.

The market for poorer grades of oats is stronger, and in sellers' favor, but for choice there is a good inquiry, with light obtainable supplies to draw from. Owing to the liberal offerings of off grades, buyers are slow to bid up on the more choice, yet they are compelled to pay full prices, so as to meet their wants.

The rye market is quiet, but steady.

In buckwheat, nothing new is reported.

Feedstuffs.

There is a continued scarcity of choice hay, necessitating dealers to pay full prices, but fair to good hay is in liberal supply, with buyers offish.

Bran and middlings are stiff at the advance. Feedmeal and ground barley are steady with a stronger tone.

Fruits.

Receipts of oranges the past week were large, but the market took all at steady prices, except the poorer qualities, and also the overripe, which were sold at concessions to peddlers.

Lemons are fetching an advance. Limes are steady, with the more choice in good request from shippers.

Eastern apples continue in fair supply.

Live-Stock.

Beef cattle and mutton sheep have a steadier tone under lighter offerings, but no advance in prices is looked for, owing to the lessened consumption. Calves are weak, but spring lambs are firm. Dressed hogs are weaker, but live hogs are scarce, and fetch good prices. Milch cows continue in good demand. In horses there is no material change since last week's report.

Vegetables.

Red potatoes are in good demand at full prices, chiefly to fill shipping orders. White potatoes are weak under liberal supplies from Oregon and Utah. Oregon potatoes are generally of poor quality.

Onions are strong, particularly choice hard-keepers, which are wanted to fill distant orders.

New potatoes are strong under light receipts. With continued pleasant weather, heavier receipts are looked for.

Seasonable spring vegetables are coming in more freely, with a lower range of values reported. It is claimed that nearby points will soon begin to send garden truck to this market, when a still lower range is expected to rule for that coming from more distant points.

Winter cabbages are in fair supply, with a continued good demand reported.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	205,887	182,451
In port, disengaged	115,395	58,000
In port, engaged	15,958	26,969
Totals	337,230	257,420

The above gives a carrying capacity as follows: 1887, 550,786 short tons; 1886, 456,900 short tons; increase over last year, 93,886.

Dried peaches are stiffer, under lighter supplies.

Honey is very strong, with buyers taking parcels of choice, at a slight advance on quotations.

Beans are steadier, with buyers disposed to bid a slight advance for choice.

Choice poultry continues strong at full prices, owing to light receipts.

The advance in overland freights, that will go into effect soon, will have a decided influence on prices of produce shipped to the East, and also on produce brought to this coast, such as provisions, eggs, oats, corn, etc.

Game is going out of season, making quotations nominal.

Hops have a stronger tone, but buyers are trying to keep prices down.

A few stray clips of this season's wool have come to hand, but it is impossible to get quotations, as buyers are trying to keep the market low.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to anyone who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

THE W. C. T. Union has petitioned President Cleveland against drinking-houses, gambling-houses and other immoralities of the National Capital.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 16, 1887

BEANS AND PEAS.			
Bayo, ctl	1 65	@	1 90
Butter	1 40	@	1 75
Pea	1 75	@	1 95
Red	1 25	@	1 50
Pink	1 40	@	1 55
Large White	1 75	@	1 90
Small White	1 75	@	1 95
Lima	2 00	@	2 45
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	14	@	17½
do Fancy br'nds	18	@	19
Pickle roll	—	@	—
Firkin, new	15	@	16
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	10	@	12½
Eastern style	12½	@	15½
EGGS.			
Cal., ranch, doz	13	@	14
do, store	12	@	13½
Ducks	—	@	—
Oregon	—	@	—
Eastern	12	@	13½
Utah	—	@	—
FEED.			
Bran, ton	15 00	@	16 00
Cornmeal	23 00	@	24 00
Gr'd Barley ton	23 00	@	24 00
Hay	9 00	@	14 00
Middlings	22 00	@	23 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR			
Extra, City Mills	4 25	@	4 75
do Co'ntry Mills	3 8[illegible]	@	4 25
Superfine	3 00	@	3 75
GRAIN, ETC.			
Barley, feed, ctl	1 00	@	1 06½
do Brewing	1 05	@	1 15
Chevalier	1 45	@	1 60
do Coast	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White	1 00	@	1 07½
Yellow	1 00	@	1 05
Small Round	1 05	@	1 15
Nebraska	97½	@	1 02½
Oats, new	—	@	—
Choice feed	1 47½	@	1 55
do good	1 45	@	—
do fair	1 35	@	1 40
do black	1 40	@	—
do Oregon	1 30	@	1 60
Rye	1 10	@	1 25
Wheat milling			
Gilt edged	1 67½	@	1 71½
do Choice	1 63½	@	1 65
do fair to good	1 60	@	—
Shipping choice	1 60	@	—
do good	1 57½	@	—
do fair	1 53½	@	—
HIDES.			
Dry	—	@	18
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb,	9	@	13
Honey in comb, fancy	13	@	14½
Extracted, light	4	@	4½
do dark	3½	@	4
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Silverskin	1 50	@	2 50
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	15	@	19
Paper shell	18	@	20
Brazil	11½	@	13
Pecans	9	@	11
PEANUTS			
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	1 60	@	1 80
Early Rose	1 50	@	1 75
Cuffey Cove	1 75	@	2 00
Jersey Blues	1 75	@	—
Petaluma	—	@	—
Tomales	1 50	@	2 00
River reds	1 50	@	1 80
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 60	@	1 75
Peerless	1 60	@	1 80
Salt Lake	—	@	—
New Potatoes	3	@	4
POULTRY AND GAME.			
Hens, doz	6 00	@	8 00
Roosters	5 50	@	10 00
Broilers	5 00	@	7 00
Ducks, tame	8 00	@	12 00
do Mallard	3 00	@	—
do Sprig	1 00	@	—
Geese, pair	2 00	@	2 25
do Goslings	—	@	—
Wild Gray, doz	75	@	1 50
Turkeys, lb	16	@	19
do Dressed	19	@	20
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	75	@	85
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	1 75
Venison	8	@	10
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9
Medium	8½	@	9
Light	10½	@	11½
Extra Light	12	@	12½
Lard	8	@	11½
Cal. Smoked Beef	11½	@	12½
Hams, Cal	10	@	12½
do Eastern	13	@	14
SEEDS.			
Alfalfa	9	@	10
Canary	3½	@	4
Clover red	12	@	13
White	17	@	18
Cotton	20	@	—
Flaxseed	2½	@	2½
Hemp	4	@	4½
Italian Rye Grass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	3	@	3½
Brown	2 25	@	2 75
Rape	1	@	1½
Kg Blue Grass	11	@	13
3d quality	11	@	12
Sweet V. Grass, Orchard	75	@	—
	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW.			
Crude, lb	2	@	—
Refined	6	@	—
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	22	@	25
Sacto valley	17	@	20
Free Mountain	17	@	20
N'hern defective	—	@	—
S Joaquin short	14	@	18
do long	—	@	—
Cava'y & Fth'll	—	@	—
Oregon Eastern	17	@	22
do valley	23	@	25
Southern Coast	13	@	17
FALL—1886			
Southern, free	17	@	20
do defective	12½	@	15
Northern, free	20	@	23
do defective	15	@	20
Middle free	18	@	21
do defective	15	@	18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 16, 1887

Apples, bx com	1 00	@	1 50
do choice	1 75	@	3 00
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries blk	—	@	—
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	—	@	—
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 25	@	1 75
do Sicily, box	2 00	@	3 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	2 25
do Navels	2 50	@	4 50
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
do Egg	—	@	—
Quinces bx	—	@	—
Raspberries ch	—	@	—
Strawberries ch	—	@	—
Watermelons	100 —	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	6½
do evaporated	11	@	12½
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	9	@	11
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	10	@	13
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus, lb	8	@	10
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, qtl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	20	@	25
Pumpkins pr ton	—	@	—
Squash, Marrow fat, ton	8 00	@	10 00
do Summer bx	—	@	—
String beans lb	6	@	8
Tomatoes box	1 50	@	2 00
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	1 30	@	1 55
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, ₱ bx	12½	@	15
Garlic, lb	3	@	3½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, lb	4	@	7
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	12½
Rhubarb lb	10	@	15

MILLS COLLEGE.—Rev. C. C. Stratton, D. D., President of the University of the Pacific, has accepted the Presidency of Mills College. It will be remembered that, having been offered the position some months since, he was induced to decline it and remain at San Jose; later developments, however, have moved him to reverse his decision and take the chair vacated by Prof. Homer B. Sprague, much to the satisfaction of the trustees.

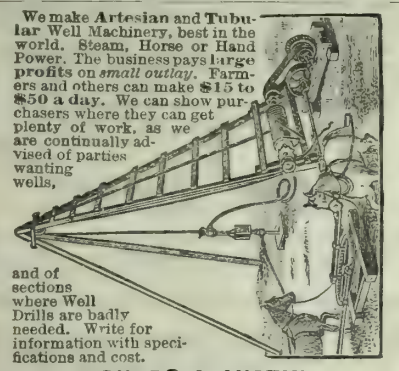
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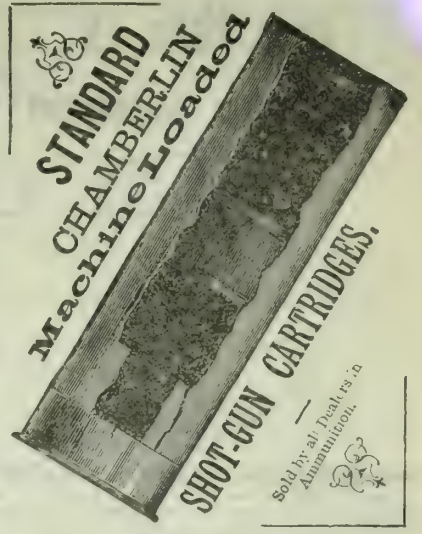
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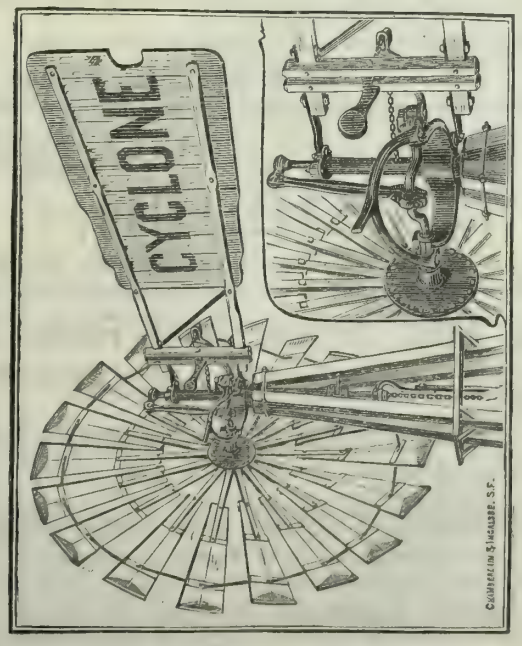
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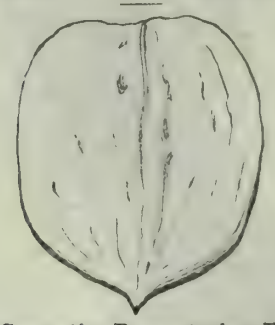
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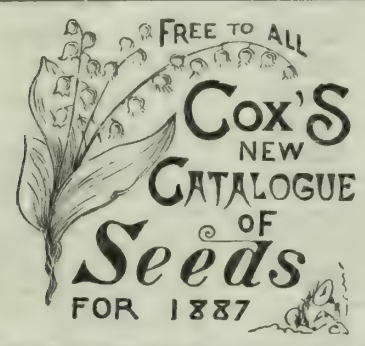
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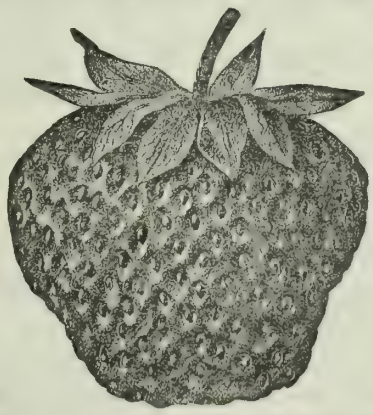
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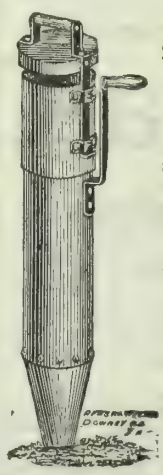
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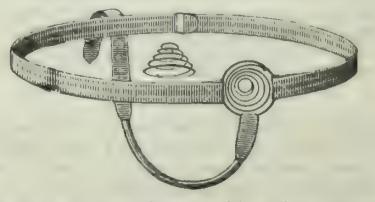
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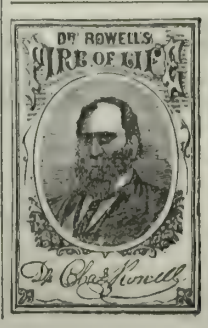
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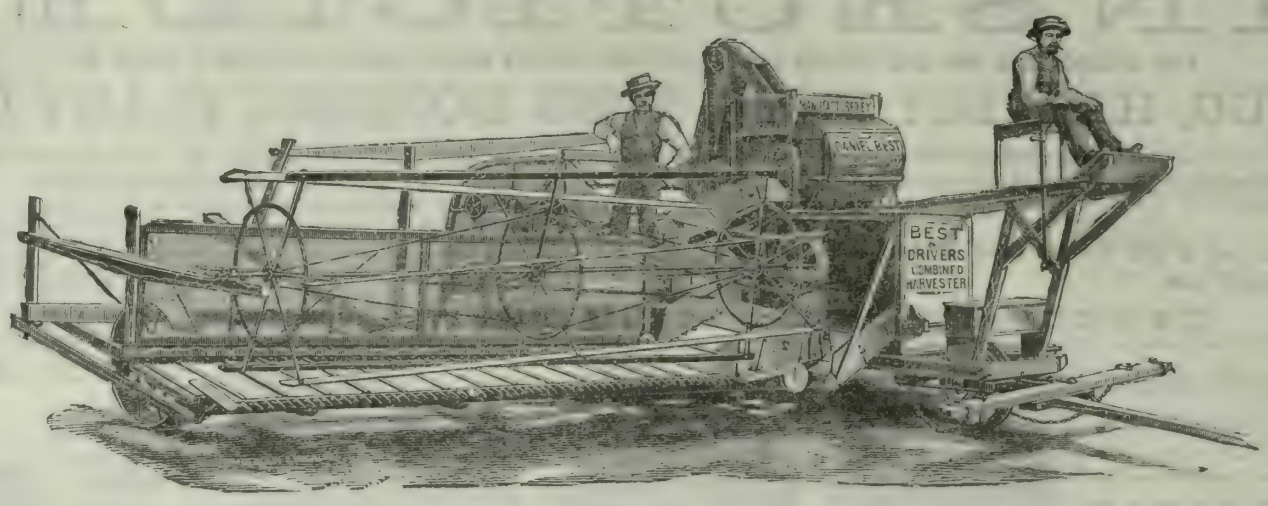
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The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouole to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvestin expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** ttached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, so that they will not fall to pieces under a hot sun.

Write for Circulars. For further information, prices, etc., address

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how t works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly cl an the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

DANIEL BEST, San Leandro, Alameda Co., Cal.

Santa Clara Valley Real Estate

Space allows us to Show but a few Choice Investments from our larger list of bargains:

$2150—10 acres, 3 miles from town. Rich gravelly loam; all in vines, 2 years old. Small house, shed, barn and well. Unimproved land adjoining sold for $200 per acre. No. 450.

$25,000—55 acres, adjoining city; suitable for subdividing; modern cottage, hot and cold water; city water and barn; 8 acres in choice orchard; vacant land adjoining, selling at $1000 per acre; very choice investment. No. 448.

$16,000—40 acres in warm belt near Saratoga; modern house with all improvements, good barn, well, windmill and tank; 23 acres best variety grapes, bearing; balance prune orchard. A bargain. No. 426.

$9000—30 acres; fine location, 2½ miles from city; fine 10-room house, barn and windmill; 5 acres orchard and 5 acres vineyard; a beautiful home; rapidly increasing in value. No. 484.

$5000—8 acres; choice bearing orchard; 1 mile from San Jose; 7 acres prunes; balance variety; neat 4-room house; stable and well; few vines. No. 460.

$15,000—60 acres; finely located, 6 miles out, near R. R.; 50 acres in choice orchard and vineyard; 20 acres bearing; nice house, barn, large tank, etc.; fine lawn, shrubbery, hedges, etc. The best bargain in the valley. A beautiful, productive home. No. 102.

$225 per acre.—80 acres choice alluvial land; 1 mile from city limits; as a whole or in subdivisions; a fine speculation; $225 per acre in subdivisions, less as a whole. Investigate this. No. 482.

$400 per acre.—12 acres close to city limits; rich sediment soil; suitable for subdividing into suburban lots; only $400 per acre, well worth $600. No. 489.

$25,000—129 acres, within 3 miles of town; rich soil; 30 acres vines; 15 acres apricots, prunes, etc.; two-story house, barn, windmill, tank, water pipes; splendid location in warm belt. Only $10,000 cash, balance 8 per cent. No. 457.

$9500—22 acres in beautiful location; neat cottage, good barn and carriage house, chicken house, poultry yards for 1000 chickens, good well, windmill and tank; splendid variety orchard, principally prunes and apricots; some oranges, lemons, limes, almonds and olives; also small fruit; terms easy; will exchange for Oakland property. No. 410.

$1500—160 acres; a cheap foothill ranch; part in orchard and vines; small house and barn; plenty of water; apply soon. No. 411.

$4400—10 acres; 4-year-old orchard, 2 miles from Santa Clara; well fenced; principally prunes and apricots; combination house and barn; cheap. No. 415.

60 acres; splendid sediment land, beautifully located on two avenues; to be sold in tracts to suit, from ten acres upward; price very low, according to location. No. 420.

$3000—A very choice 3-acre orchard, with house, barn, windmill, tank, tankhouse, etc.; very near the horse cars, in the celebrated Willows tract; a rare chance; this piece produced about $600 last year. No. 423.

$1250—Very desirable lot opposite the Normal school. No. 40.

$4000—16 acres; short distance from town, on main avenue; all in best variety orchard; a paying investment. No. 346.

$8000—32 acres, fronting on beautiful avenue; 3 acres bearing vines; 12 acres prunes; neat house; 2 story, good barn; all fenced; terms, half cash; balance on or before 3 years, 8 per cent; a bargain. No. 493.

$900—Lot 70x200, in University survey; small house and orchard; very desirable property and a bargain. No. 133.

$1200—About 2 acres splendid land; small house, good well, small orchard and vineyard; commands a beautiful view; in north part of city; fronts two streets. No. 128.

$225 per acre; 115 acres finely located, adjoining town; 16 acres good orchard, 4 and 5 years old; house, fine well, windmill, tank, barn; a desirable purchase; land next to it selling at $400 per acre; in tracts to suit. No. 477.

$175 per acre; 235 acres rich sediment land, only 2½ miles from town; lying on 2 avenues; can be advantageously subdivided at good advance. No. 483.

$43,500—320 acres 2 miles from town; modern house, 2 large barns, well, windmill and tank; 250 acres in paying crops, balance pasture; do not miss this chance; splendid land, and below market price; fine for subdivision. No. 478.

$2500—20 acres, all in vines, in a beautiful location in foothills, overlooking the valley; good soil and cheap. No. 481.

Correspondence promptly answered. Property shown free, having our own conveyances. We deal on the square and furnish

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PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

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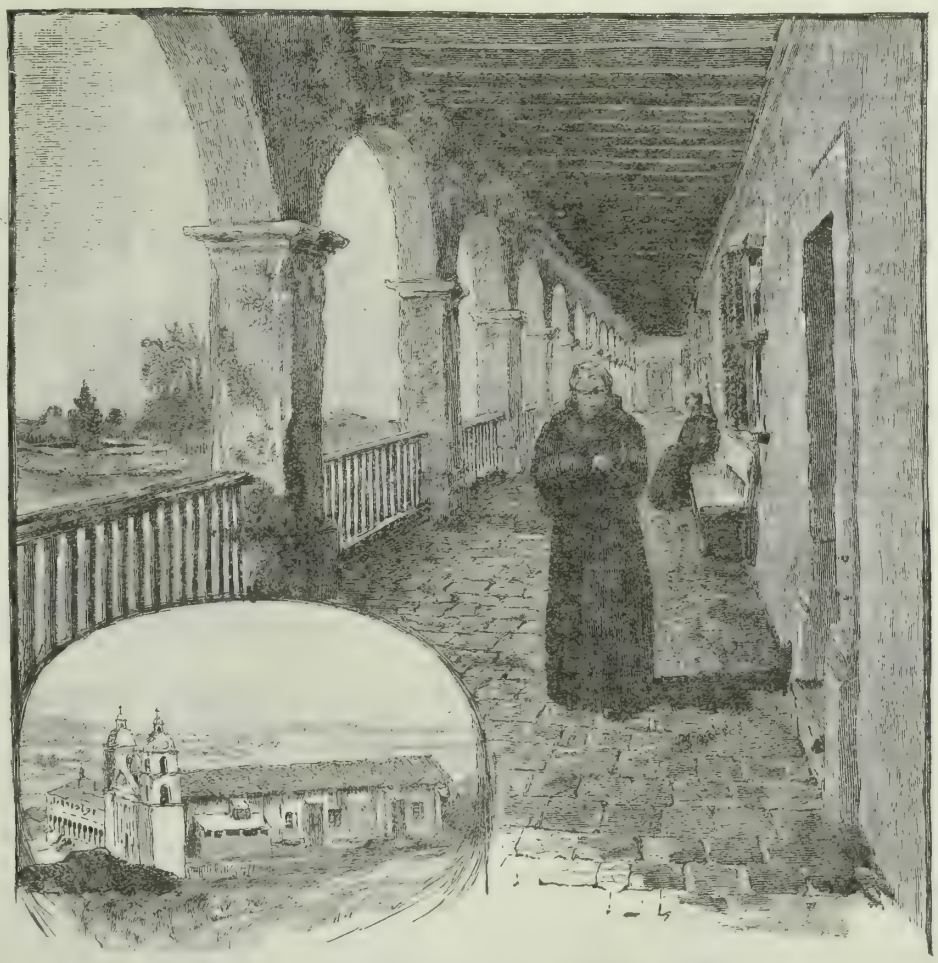
The Forty-ninth Congress.

Opinions may differ, but the general legislation of this Congress seems to be more than usually fruitful. We judge its work, not by the quantity accomplished, but the quality. The RURAL has fully amplified the Interstate Commerce bill, the Oleomargarine and Agricultural Experiment Station bills; but a summary of the other more important work may be refreshing to the memory of many. In passing the Electoral-Count bill, a danger liable to occur under the old system of presidential elections has been eliminated by fixing the succession so that no contingency can affect it. Acts have been passed extending the jurisdiction of the Court of Claims, introducing the free-delivery system into cities of 10,000 inhabitants and relieving our merchant marine of some vexatious burdens. The use of convict labor on public buildings has been prohibited, and provision made for the redemption of trade dollars. The Tenure of Office Act has been repealed. The area of pensions has been materially increased by the passage of the Mexican Pension bill, a measure about which there will be contrarious opinions. The Anti-Mormon bill has been allowed by the President to become a law, and promises, if rigidly enforced, to solve the Mormon problem, by breaking down the political power of the Mormon church, in abolishing what is called woman suf-suffrage, but in this Territory should be called concubine suffrage, and restoring the control of the Territory to the people operating through Congress, where it belongs. The Act restricting the ownership of real estate in the Territories to American citizens will be hailed with general favor. It appears from the report of a Congressional committee that about 20,000,000 acres of land are now owned by aliens—an area more than equal to one-third of the State of Kansas. It is certainly not desirable that any considerable tracts of land should pass into the hands of persons more interested in the welfare of another country than the one that gives them the hospitality of a home and shelter—persons who owe allegiance abroad and never care to participate in advancing the glory and prosperity of our country. The naval appropriation seems generous. It will carry a total of $18,000,000 toward the new navy, of which $1,110,000 is for two steel gunboats, $6,000,000 for two heavily armored cruisers, $2,000,000 for floating batteries, $50,000 for torpedoes, $4,000,000 for armor-plate and gun steel, $2,000,000 for work on monitors, and $2,500,000 for work on vessels already begun.

This will make a good start toward a navy, but the fortification of the seaboard was strangely neglected. Congress has at last spoken out in no mincing words in the matter of the Canadian outrages upon our fishermen and fishery interests by passing a bill which authorizes the President to close our ports against Canadian vessels and goods in case of further interference with fishing marine, and render liable to forfeiture all vessels violating the presidential proclamation. On the whole, Congress has done pretty well.

Santa Barbara Mission.

We give on this page a sketch of the Old Mission church at Santa Barbara. Now that Santa Barbara is feeling the effect of the new life in California affairs, as the long-desired railway is approaching the town, and varied city improvements are rife, it is worth while for a moment to turn the mind upon the vestige of the old life of the place. The Santa Barbara mission recently passed its centennial birthday, as it was established in 1786. In the small engraving at the lower corner is given a glimpse of the general form of the building. The main structure is 200 feet in length and nearly 50 feet in width, and the wing is 130 feet long. It is upon the corridor of this wing that the main sketch is made, and the figure is a Franciscan monk. Santa Barbara mission is the only one, it is said, where the Franciscan monks still remain. The grounds of the Mission are spacious, and a ride to the spot is the proper thing for tourists visiting the city by the sea.



THE OLD MISSION CHURCH AT SANTA BARBARA.

THE RUINOUS RABBITS.—The Adelaide *Observer*, of Feb. 19th, had a telegram from Sydney, stating that the contractor for the erection of a rabbit-proof fence between Narromine and Bourke had only 25 miles of fencing to finish, and was expecting to complete his contract in about a fortnight. Signs of rabbits had been found in several places to the northward of the fence, and it was feared that the erection of the barrier has been too long delayed, and that additional fencing will have to be erected on an extensive scale, in order effectively to check their advance northward and eastward. Great numbers of rabbits are being destroyed in the southwestern pastoral country, no less than 250,000 having been killed on one station during the last quarter of 1886. Those uninformed persons, who were inclined to sneer at the alarm caused a few weeks ago by the threatened importation of 20 Australian rabbits, may draw their own inferences as to the utility of giving these animals a foothold in California.

ARTIFICIAL RAIN.—Among the many methods of applying water in this State, we imagine that that reported to us from Havilah, Kern county, is unique, and approaches nearest to a rainstorm. One grower there has several hundred "globe lawn-sprinklers" arranged in lines of 50 sprinklers each. Each sprinkler has a half-inch pipe with a stop-valve, and each main, which feeds the 50 sprinklers, has also a stop-valve. Each sprinkler irrigates an area 40 feet in diameter. The mains are of two to four-inch pipe. It is said that 50 sprinklers are generally going at one time, the water coming from a reservoir with 200-foot elevation. The gentleman who has this system in operation says that he finds that insects on trees and vegetables are greatly reduced by it. What a pretty sight 50 large lawn-sprinklers all in operation must be.

Horticultural Convention.

At a recent convention of fruit-growers, a request was made to the State Board of Horticulture, that they hold two conventions each year, one at the north, the other at the south. This has been duly ordered, and the President, Ellwood Cooper, has issued a call for a convention to be held in Riverside, beginning Monday, April 11, and continuing during the week. At this time will also be held the semi-annual meeting of the State Board, and one important item of business will be the election of a secretary to succeed the late Col. Webb. We stated last week that a law had passed providing for two Inspectors of Fruit Pests, one at the south and the other at the north. This statement was incorrect, for the bill was lost for lack of time at the close of the session.

The Riverside people have wisely determined to hold a citrus fair during the session of the convention. This will be an additional inducement for fruit-growers from a distance to attend. We can earnestly advise them to do so. Our own experience in the welcome which Riverside extends to her guests, warrants us in assuring visitors that Riverside is a good place to go to.

Still another item which we expect will add luster to the convention, will be the possible presence of Prof. C. V. Riley, U. S. Entomologist. The telegraph brings the announcement that Prof. Riley left Washington on March 19, and will go first to Southern California. The visit of Prof. Riley has been long anticipated, and we are glad it is to be realized. It is probable that he can arrange his program so as to attend the Riverside meeting, as so much which is of interest to him will there be brought forward. The middle of April is rather late for Riverside citrus fruit to be seen at its best, but there will be plenty of it, no doubt, and samples of the preserved fruit products of the colony would of itself form a display worth a trip the length of the State to see. To those desiring to attend the Riverside Convention and Fair, special transportation rates have been granted by the Central & Southern Pacific Railroad Co. to Colton, from all points on their lines. Attendants will need to obtain receipts of local agents for ticket purchased, which receipt, signed by the Secretary of the Board at the Convention, will entitle the holder to a return ticket at one-third the regular rate.

FROM AFAR.—The breadth of the interest in the agricultural experiment work being done in California may be intimated by the fact that last week Prof. Hilgard received an application for his reports from Constantinople, Turkey. We have often spoken of the wide usefulness of agricultural experiment and investigation as pursued in this State, but it did not occur to us before that it might possibly have a bearing upon the settlement of the great Eastern question.

THE demand for olive trees this season has been largely above the supply, says the San Jose *Times*.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions

Santa Barbara County Notes.

EDITORS PRESS:—As we see a great deal in the papers about the nice fruits, vegetables, flowers, and large squashes, beets, potatoes, etc., that grow in the central part of California, and see but little in print of what we in Santa Barbara county are doing, I propose to give you a few facts and figures about the productions of this part of the State.

We think we can grow the largest squash in the State. At our late county fair seven squashes were exhibited by one man from Goleta. The largest one weighed 270 pounds; the other six averaged over 250 pounds. Dr. Couch, of Carpinteria, grew one that weighed 268 pounds. A 200-pound squash is no uncommon thing around Santa Barbara. At our late fair your humble servant exhibited 12 beets that covered the bottom of a wagon-box. Eight of them weighed 400 pounds, and were grown in 5½ months from the time seed was planted. The largest one weighed 53½ pounds. Lompoc exhibited Irish potatoes weighing 6 pounds, 6 ounces. We also have sweet potatoes weighing 8½ pounds, and one hill of sweet potatoes of 26½ pounds, variety yellow Nansemond. We also have the finest of vegetables of every kind almost every day in the year. Fresh strawberries have been in the market all winter. Quite a number of citizens had bananas ripen in the open air.

On the Hollister estate are ripe dates in considerable quantities. The lemon and lime seem to flourish to the hight of perfection. Mr. Packard, of the Montecito, claims from $800 to $1000 per acre, as the returns from his lemon orchard. Oranges are doing finely where good care and plenty of water are used. Prune trees grow from 4 to 12 feet in a year; apricots, nearly as fast. In fact, we grow almost any kind of fruit and nuts.

The English walnut is being planted quite extensively, and when 15 years old will pay ten per cent on land worth $500 an acre. Choice flowers bloom in the open air all winter. We have had no frost to do any damage, and have had rain enough to insure fine summer crops, and we will probably have good crops of grain and hay. Fruits of all kinds are looking well, and we anticipate a good yield.

Santa Barbara seems to be in luck the last year. The railroad is within a few miles of the city, and the electric lights will soon shine forth as the noonday sun, and above all the city has put in a fine sewer; also a telephone system. Now, with our fine climate, liberal productions, and all the improvements I have mentioned, what more can man want here below?

There is quite a boom in real estate. Some of your good people from San Francisco have been purchasing quite extensively, and we look forward to the time when our hills and valleys shall all be covered with pleasant homes for the aged and feeble, and when the little children can take the hands of their grandparents and say: "Let's go out and get a bouquet of flowers," any day of the year.

Carpinteria, Cal. P. C. HIGGINS.

Tuolumne County Notes.

EDITORS PRESS:—Winter is giving place to spring, sunshine and flowers. Growing crops, blossoming trees and grandeur all around is experienced at this season among the foothills. Our prospects for an abundant harvest and fruit crop were never better than the present outlook. This is a pear year. Every tree, small and large, is filled with bursting buds. Many of them are out in full bloom. Some few of the boomers from the sunny south are finding their way among us to see what lies beyond the orange belt. But when they gaze upon large trees loaded down with beautiful oranges without one speck to mar their golden yellow, they begin to think that the best half of California has been but seldom heard from. And to have it spread abroad that Knight's Ferry carried away the first prize at San Jose Citrus Fair, was a something undreamed of by those who pin their faith upon other parts of the State which are most talked about. Oranges which find their way here from the lower country are small and crusted with black blotches which mar their appearance and eating value. No such scaly fruit grows among our foothills.

Knight's Ferry is 14 miles from my place, and is really among the foothills bordering on the plains, and only some three miles from our county boundary. Mr. James Goodwin, Mountain Pass, same distance from the ferry, has orange trees in full bearing—seedlings. The fruit is large and beautiful. It is a grand sight to see hundreds of yellow, golden oranges amid the green. Mr. West, a member of the Legislature of Indiana, made Mr. Goodwin's place a visit a few days ago, ate his oranges, tasted his wine, and came away delighted and expressed himself as if men were making fools of themselves by paying such fabulous prices for land when better oranges can be raised in these foothills, having a clear, bracing and healthy atmosphere and scenery for grandeur the world cannot surpass.

Only a railroad is wanted to give us a boom and bring among us men of capital and energy to improve our natural facilities. This is one reason why we do not advance as fast as some parts of the State. Lack of social pleasure is another, and the extent of land suited for colonies still another. Our favored garden spots are in small valleys, isolated to a degree, and this precludes colonizing on a large scale, and this may be the principal cause of our lack of development. But as the favored localities fill up with wealthy families, the middle class will find out this region where they can rear homes amid scenes grand and sublime, where perpetual summer and sunshine is the rule and not the exception. Those who come among us for permanent settlement should come to purchase, as most of the favored places are occupied, and they can purchase cheaper than improve.

We were informed a few days ago that crickets had made their appearance on the plains and threatened the crops. It is to be hoped that no blight will mar the fine prospects which at present prevail. The cold wave which we experienced some time ago rather stunted the young crops. But the present warm weather is truly an inspiration. Feed and growing crops are springing into life, making the heart of the husbandman rejoice. The RURAL is received with regularity, and the reading of the same enjoyed. When we knew the RURAL in its infancy, it was not the matured visitor we have to-day. It is a proof of that much-written-of doctrine, "evolution"—the greater evolved from the less. It may be the same as that other saying: "May work both ways." Evolution does not mean at all times that we are growing in grace, for many seem to go downward instead of heavenward; but the RURAL keeps steadily progressing and developing our natural and acquired resources. No State in this big Union may boast of all which goes to make up happy rural homes like California, and the best lessons of rural life may be found in your pages. May your enterprise meet with its merited reward.

JOHN TAYLOR.

Chinese Camp, Tuolumne Co.

Summer-Fallow in Fresno County.

EDITORS PRESS:—Henry Hulbert, farming six miles northeast of Selma, in speaking of the benefits of summer-fallowing, notes the following experiences:

First. In 1885 he irrigated and summer-fallowed 45 acres, plowing seven inches deep. In the fall of the same year he plowed again, this time four inches deep, and put in wheat with drill 45 pounds per acre. The yield in summer of 1886 was 475 sacks—144 pounds to the sack—for the tract.

Second. In December, 1885, and January, 1886, he plowed 40 acres, 3½ to 4 inches deep, and, while plowing, sowed wheat from the plow, about 45 pounds per acre. The soil of half this tract was equally as good as that of the tract first above mentioned, that of the remainder a little lighter. The yield was 155 sacks, of nearly 145 pounds to the sack. The grain filled a little better on this tract than on the other, taken as a body. The first showed some shrunken grains.

The soil of both tracts is locally known as "white ash." It has considerable sand in it, yet, when wet, is gummy and sticky. The wheat was all Sonora wheat, which Mr. H. considers best for this locality. It is thought that the slight difference in two varieties of soil in the last mentioned tract would not at all be sufficient to account for the great difference in yield between the two tracts, but that the results shown should be almost entirely attributed to the different methods resorted to in the preparation of the ground. McD.

Fresno Co.

THE GARDEN.

Whole Potatoes for Seed.

EDITORS PRESS:—Repeated trials and much observation during the last 50 years have convinced me that a whole potato is far preferable to a piece for seed, and a medium-sized one is to be preferred to a very large or a very small one. If a whole potato be planted, no more shoots will start from it ordinarily than where a part of the potato is planted; and what do grow will be just the ones nature designed should grow, and there will be just the kind and amount of nourishment in the whole potato to start the plants into a vigorous and healthy growth; whereas, if a piece only be planted, all the eyes in the piece will be likely to grow, thus sending up feeble, sickly plants, having little vitality, with nothing back of them to sustain their growth. Dame Nature, left to herself, unmolested and undisturbed, will only propagate the "survival of the fittest." All animals in a state of nature are as perfect as when they first emanated from the hand of their Creator, notwithstanding there is a promiscuous intermingling of father and daughter, brother and sister. And the reason of this is, that only the lords of the harem, the strong, vigorous animals, are allowed to perpetuate their kind. Just so with a potato. If a whole one is planted, only the strong, vigorous, prominent eyes will start, absorbing all the nourishment from the feeble, weak eyes, leaving them to perish. Forty and fifty years ago we always planted a good-sized potato in each hill, and never failed in raising a fine crop of smooth, healthy, fine-flavored potatoes, 400 to 600 bushels to the acre being no unusual yield. I have taken 60 pounds of potatoes from eight hills. At this time potatoes were only worth in market 15 to 25 cents a bushel, and were mostly fed out to stock at home. When they became dearer, farmers began to cut their potatoes, in some instances merely planting the parings, with one or two eyes in each piece, and soon a marked deterioration, both in yield and quality, set in, and the fatal rot supervened to the almost total annihilation of this indispensable article of food. I grant, if the season and all other conditions are favorable, a good crop may be realized from planting small potatoes, or even pieces with only one or two eyes in each piece; but if this practice be continued the result will certainly be disastrous. Only seed potatoes should be planted, and every hill of potatoes contains seed potatoes and cooking potatoes, and the one should not be substituted for the other.

Santa Rosa. J. S. TIBBITS.

THE VETERINARIAN.

Hog Cholera.

EDITORS PRESS:—This disease, about which we hear so much at the present time, is, like all other contagious diseases, due to a "germ." The animals are taken with ordinary symptoms of ill-health; they lie apart from the others; their internal temperature rises considerably, red and sometimes blue patches are noticed on the region of the bowels; they do not eat anything, and after a varying length of time they suddenly get worse, and death puts an end to the scene. It is not necessary in a non-professional journal to trace the minute changes, development of the bacilli, etc., but it will be well to treat the matter in a practical and plain manner. The common terms are "red and blue soldier." These indicate the different stages of congestion; in the first it is mostly in the arteries, and in the latter, the blood being darker, it consequently indicates that the blood has congealed more in the veins; or, in other words, "venous congestion." This accounts for the characteristic appearance of the skin upon the abdomen, about which mention is made above. There are other local terms, but it is hardly important that we should inquire further into them, as they simply indicate some ante or post mortem appearance. In addition to the intestines being affected, the mesenteric glands are also found to be in an altered condition. It will be best, perhaps, to explain the position of these glands, otherwise it would not be easy for those who are not posted in anatomy to understand how it is that these glands become diseased. They are placed in the mesentery, which is a membrane attached to the intestines, and their function is to help to convey (and somewhat alter the character of) the liquid and nutritious portion of the food, which is conveyed through them with the assistance of vessels termed *absorbents*. All this is necessary to remember, as by this it is easy to understand, or, at any rate, it seems rational to come to the conclusion that this "hog cholera" is a disease which has its origin in the *food* taken into the intestines of healthy animals. Some medical and veterinary authorities have termed it "pig typhoid," thinking that it, to a great extent, resembles typhoid fever in the human subject; and my knowledge of the disease leads me to say that "pig typhoid" is the best name. It certainly resembles human typhoid in its origin, and to some extent in its post-mortem appearances. It is characteristic of these specific inflammations, whether occurring in the intestines or not, that they are of a chronic nature, or slow tendency to heal or increase, as the case may be. The inflammation of the intestines and intestinal glands, as I have said, does not spread rapidly like ordinary inflammation. Another most important point is that the inflammation begins from certain points on the mucous membrane, due to the radiation (if I may here use the term) from the "original germ." This is also the case with pleuro-pneumonia contagion in cattle, and other contagious diseases, so that we get "patches" of inflammation on the intestines; but this is not the case in ordinary inflammation, it being diffused more or less evenly over the whole surface. Inflamed glands sometimes run on to the formation of ulcers, termed *typhoid ulcers*. To make a thorough examination, the microscope must be used, and all the careful and very delicate manipulation, preparation of specimens, etc., gone through. But this is, as we well know, the study of a lifetime. Profuse hemorrhage and perforation (*i. e.*, through the intestine) may result, and when this does occur, the animal dies from peritonitis—that is, an inflammation of the external part of the intestines. The peritoneum is that glistening membrane seen on the outside of the intestines, and lining the abdominal cavity. But this is not the usual cause of death. If the animals are in a low state prior to attack, they may die from inanition; but they generally collapse from "blood-poisoning."

Causes.

Among other predisposing causes may be mentioned the food these animals eat and their general condition. The wonder to my mind is, that they do not suffer more from disease than they actually do. Undoubtedly these, as I say, do not *per se* really produce the trouble; but the general unhealthy condition in which pigs live makes a suitable habitat for the "pig typhoid germs" in which to develop. Possibly the reason that lately the disease has been heard so much of was due to the fact that it had made much headway before it was brought under the notice of the proper authorities. I remember once being asked the question: From whence came the first case? It would be just as impossible to say where the first oak tree came from.

Preventive Measures.

As we well know, it is absolutely impossible to attempt the cure of these cases, especially where much structural change has taken place. Indeed, all we can do is to put forth our best endeavors to prevent the spread of the disease, by separating the healthy from the unhealthy, dispatching and burying and covering with quicklime the affected ones, and thoroughly purifying the styes in which the diseased animals were kept, throwing down plenty of boiling water all over the floor, sides, etc., using a large quantity of the driest disinfectants, carbolic acid, etc. It is not necessary to explain all the veterinary sanitary police measures adopted in Europe, as they are, of course, well known to readers, such as notification to police authorities, they then declaring the premises infected, and causing them to be isolated, etc.

Remarks.

Few things are more important and interesting than a study of comparative diseases in man and the lower animals, and certainly this matter has not received that attention which it deserves. There is nothing that will bring the veterinary profession more to the front, and enable it to take its proper position, than for it to show to the public the necessity for adopting proper measures for the inspection of meat, and the importance of adopting more thorough and rational methods of keeping animals from disease by good food, ventilation and general sanitary conditions. ROBERT J. DAWSON, V. S.

225 Geary St., S. F.

THE ORNITHOLOGIST.

The English Sparrow and Scale Insects.

EDITORS PRESS:—It is held to be a Christian virtue to speak well of an enemy. The European sparrow has been much decried since it came among us. I have largely shared this ill-will, and cannot, even now, feel pleasantly toward the little, pugnacious foreigner, although my later acquaintance has revealed some extenuating traits of character. I charge the sparrows with the crime of driving the songsters all from my yard. Certainly, since their advent the house wren, the bluebird and the linnets, which used to nest with me annually, have left their old haunts and disappeared. Their little domiciles that I used to prepare with much care have remained untenanted for four years and have crumbled away unused. I have good reasons for charging the sparrow with this eviction, and until recently had been unable to see that it had proffered any recompense for the loss it had occasioned.

Like my neighbors, I am afflicted with the plant scale, thrifty colonies of which spring up in every unwatched nook. I have fought them as best I could. I have found free trimming and strong alkaline washes, thoroughly applied with a stiff brush, the best remedies. But despite my best efforts they still stay with me, setting up a thriving business, now and then, in some overlooked clump. They seem most at home on the tree malva—the *Malva real* of the Spanish (a tree which I cultivate for its green foliage and its plaques of bright winter bloom), the white jasmine, the ivy, the orange; and of late I have found a very prosperous settlement on the California bay tree or California laurel.

In the early winter I observed a flock of some 20 sparrows in the malva, which was covered with scale, and the edict had gone forth that in the spring the malva must go. They were there day after day, chattering away, and seemed very merry. I thought they were there for shelter. They were very tame, and upon observing closely I concluded they were feeding possibly on the flies and insects which frequent the tree. I noticed at the same time that the bark on the branches was completely studded with little white spots where the scale, as I supposed, had fallen off. A little later the sparrows left the malva and were chattering every day in a clump of white jasmine, which also had the scale. Here I watched them again and became satisfied they were feeding. A little later I one day found them on an orange tree in a neighbor's yard, and as the foliage was less dense I could see them pick the scale insect from the leaves, sometimes getting a position where one of them would detach a whole row of scale planted along the mid-rib of a leaf. I much desired to drop one of them and examine the crop for the insect, but had no means at hand with which to do the "barbarous deed," and thus did not make this crucial test. That they dislodged the scale I know. I think they ate them. They are now

quartered in a clump of ivy, where every spring I am obliged to fight the scale.

Since determining what the little sparrows were up to, I have inspected their work and find they have not done a clean job. While I find evidences that many living scales have been dislodged, I find they have left enough for seed. They are probably too light-hearted and playful to do what our fruit-growers would call conscientious work.

What they might do if in greater numbers and if given more time, I cannot tell. If, in the fruit-growing sections of Europe and Asia where the sparrow is very numerous, they are free from fruit pests, and their immunity is due to the sparrow, it may be to our advantage to cultivate him. He may turn out but a tramp who asks for work that he may get a quarter for a drunk, and he may mean business—who can tell?

In any event, this little hint, as to what the sparrow can do, opens up an interesting field of investigation for the fruit-grower and the florist. The destruction of so-called fruit pests by chemicals and other appliances, which are now all the rage, is too expensive and too difficult of application to be of general utility in any large way. If something can be found that feeds upon them, the process of extermination will become more feasible.

All of the so-called finch family—the sparrow, the linnet and the finches proper—are great devourers of minute insects which have their homes upon the bark and leaves of trees; but they are all limb-perchers and cannot well feed upon the trunk. This, however, is more readily within the reach of the gardener. The titmice, or chickadees, as Americans call them, are also fond of the minute bits of food that they find upon the bark of trees, and some of them are trunk-perchers. Most of them, however, are too wild to be of service in the orchard.

There comes in another thought: Why is it that many trees and shrubs, which, growing wild, do not suffer from these insects in their native habitat, but when cultivated, become feeding ground for these pests? I never saw a scale on a bay tree when growing wild; but I have one in front of my yard which is covered with it. [The bay trees in the canyons of the Coast Range are in some places very badly infested with scales.—EDS. PRESS.]

May it not be that when growing in the forests the little birds that are seen flitting through their branches, skipping along each twig, eyeing sharply each crevice and leaf, keep them clean? These timid little fellows are not constantly in active motion for mere show. They are not in never-ceasing action from early dawn until dusky eve for the mere love of exercise. They are trying to gain a living; they are looking for food, and hundreds of little insects find a lodging-place in their crops every day. Were it not for the very laudable endeavor of these little busybodies to earn an honest living, our forests would soon fall a prey to the ravages of some detestable scale-bug. Let us cultivate the birds. Even the sparrow should not be condemned without a hearing.

A. H. AGARD.

Oakland, March 3, 1887.

HORTICULTURE.

Some of the Fungoid Diseases Affecting Our Deciduous Fruits.

Bulletin No. 5, State Board of Horticulture.

The peculiar climate of the coast of California, especially that of those sections within the more direct influence of the fogs of the ocean, offer specially favorable conditions for the development of injurious fungi, popularly known as rusts, smuts, mildews and blights, which, as cultivation extends, seem to increase and cause serious loss, if not total destruction, of our crops.

Nature of Fungi.—The study of fungi, at least of the lower and most destructive forms, does not date very far back. Owing to their minuteness of structure, our knowledge of their character is due to the microscope, without the aid of which they cannot be scientifically determined. The number of species and families of fungi is very great, and in fact the difference in size between the smallest and largest is as great in proportion as it is between the tiniest herb and the giant of the forest. But with all their great differences they have, of course, certain points in common which separate them from higher plants, although some of these characters are shared by ferns and lycopods. I refer to their mode of reproduction. Before entering upon the discussion of the separate kinds it may be well to review the characteristics of this function. The organs of reproduction—that is, the spores, analogous to seed—in the higher fungi, as the toadstool, are contained in the most conspicuous part of the organism, which we see above ground. That which answers to the stem and root of the plant combined is below ground, or feeding on the object that supplies its nourishment, by sending its minute threads through the tissues, is known as the mycelium. To become a true resting spore, which, like the seed, can remain dormant for seasons, until favorable conditions for its development are offered, a certain process, analogous to the fertilization of the pollen on the egg of the flowering plant, is necessary. But these resting spores are not necessary during the time of the most active growth of the fungi. Then spores, which may be compared to bulblets, such as are produced by the onion and lily, are developed, and these seem to possess the power of indefinite multiplication. It is this power that explains the very rapid development of fungi, and renders them particularly destructive. It seems evident that nearly all the blights, so called, troubling our fruit trees, are due chiefly to some sort of fungus, which has gradually spread. This will account for the fact that orchards of certain varieties of fruit, once bearing sure crops, are now very uncertain and often failures.

Fusicladium dentriticum.—The first species of fungus to be discussed because, perhaps, one of the most serious, is the black pear and apple smut, the fusicladium dentriticum.



FIG. 1.

Mention of this can be found in older horticultural works, although nothing very definite. Robert Hogg, in his "Manual of Fruits," says of the so-called fox whelp apple, that it may be known by its peculiar scabby spots (a figure in the book shows this), but adds that this is not a distinguishing mark of this apple, being in reality the effect of a species of fungus, *spilocœa* pome*, which affects other apples as well. The disease, then, cannot have been considered anything formidable, as no further mention of it is made.

In Du Breuil's "Cour d'Arboriculture" is described a disease which undoubtedly is the same as the previous one in question, affecting certain varieties of pears, causing black scab on them and rendering them unsalable. It further says that sulphur has been tried as a remedy, but without success. The report of the German experimental school at Geisenheim, on the Rhine, speaks of the fusicladium affect-



FIG. 2.

ing the white calville apples seriously, and says that sulphur dusted five times over the apples had counteracted the disease, and also records that these sulphured apples, compared with others not sulphured, were little affected by the codlin moth.

In 18— Professor Trelease, of the University of Wisconsin, published a very interesting paper, in which he demonstrates the fact that the fungus or blight of the foliage of the apple is identical with the smut causing the scab on the fruit.

Comparing the effect of the fungus on the fruit and foliage, there can hardly be any doubt that it is the same fungus that affects both pears and apples, and that the so-called blight of the Winter Nelis pear is due to an aggravated form of fusicladium, or rather, the Winter Nelis, more than other varieties of pears, is subject to this disease. In endeavoring to prove this, it will be necessary to review the history of this blight.

*This is the old name of the fusicladium dentriticum.

Ten years ago, nothing was heard of this trouble. Winter Nelis bore and matured in many places on the coast where they are now being abandoned as a failure. About five years ago I noticed at the experimental orchard of the University the leaves of two trees in the extreme southwest corner of the orchard, during the month of May, becoming smoky looking, revealing under the magnifying glass a smut-like fungus. The trees produced but little fruit, and most of this was badly affected with the same smut. The warm weather dissipated nearly all the signs of the fungus, and it was not until next season that I discovered it again on the foliage of the same trees, as well as on six or eight adjoining pear trees, attacking the latter in precisely the same manner as it had the first variety, affecting foliage and fruit as well. Next season again I was astonished to find, after a few days' absence, that the same blight had made its appearance in all parts of the orchard, affecting some varieties very severely, others less, and some not at all. It was the same year that the blight of the Winter Nelis was so general, as most people remember. This year, according to Mr. J. McLaren, of San Mateo, was the first year the disease was noticed in San Mateo county, and this year, also, in the Santa Cruz mountains that the so-called apple tree blight proved very severe. In fact, from every quarter within the region of the fog belt, complaints of this blight were heard of.

This season I determined, if possible, to reach some definite conclusion in regard to the nature of the blight as reported from various quarters, and from a thorough comparison I am satisfied that the fusicladium dentriticum is the cause of all the trouble. In the experimental garden at Berkeley, we have had all grades of it on the pears, and on one variety, the first attacked, the bloom is affected precisely as in the case of Winter Nelis, and the consequence is that the fruit does not even form. The branches of this one (see figure) when young are attacked by fungus, and the second year reveals the damage done. This is shown on another branch in the figure, the counterpart of which I have found in several orchards, notably in an eight-year-old orchard near Watsonville. This orchard, although otherwise in an apparently healthy condition, has failed to bear at all.

In the case of the white Winter Pearmain, we have in the cracked bark peculiar to this variety abundant protecting places for the resting spores, which carry the disease over from year to year. Most probably the spores, seating themselves under the scaly bark, are protected from such changes of atmosphere as are brought with the dry north wind, that destroyer to all forms of fungi. On the smooth branches of other varieties comparatively little opportunity for the lodgment of resting spores is presented, and the time of blooming has passed before any great number of spores have developed, so the harm that is done does not show itself until the young fruit has advanced a little, while on the other hand, varieties seriously affected have sufficient spores present to destroy the bloom.

Experiments at Berkeley.

Having read of the good results of the application of sulphate of iron on certain mildews, we determined to spray with it. The results produced were not favorable; when used strong enough to affect the fungus, it affected the foliage and fruit also. One pound to 40 gallons was the strongest solution that could be used on the trees in foliage without hurting the latter seriously; used stronger, it had the effect of checking the fungus and the fruit and foliage at once. Even with the solution one pound to 40 gallons of water the foliage suffered and the fruit dropped. Next season the sulphate of iron was used early, before the leafing out, one pound to 30 gallons; and again, weaker, after the foliage was out. The season proved unfavorable to the development of the fungus, being a warm, dry spring. Still, the disease showed itself on such trees as were much subject to the disease, proving that the wash had but little effect. Prof. Riley's kerosene and sour-milk emulsion was also tried, partly as a scale exterminator. It proved, likewise, of little use as a cure for any of the complaints. The following season, spring of 1885, substantially the same compound, used the succeeding season so successfully, was used again, but applied cold. It produced favorable results, but not enough to be called successful. A great deal of scabby fruit could be found, the spring also being very dry, and the comparatively healthy looking fruit we attributed to this favorable condition. The season of 1886 brought out the fungus in full force again, this time showing itself all over the experimental orchard.

Successful Remedy.

The sulphide of soda with whale-oil soap prepared as follows: "Dissolve 30 pounds whale-oil soap (80 per cent soap, at the most costing five cents per pound) in 60 gallons of water, by heating the two together thoroughly. Boil three pounds of lye (American concentrated lye is what we have used) with six pounds of sulphur and a couple of gallons of water. When thoroughly dissolved it is a dark-brown liquid (chemically sulphide of soda). Mix the two—the soap and the sulphide of soda—well, and allow them to boil for about half an hour; then add about 90 gallons of water to the mixture, and it is ready for use." This was applied warm, at the temperature of 130° F. in the barrel, from which it was sprayed. The remedy this time proved a decided success, and with the exception, the variety first attacked years ago, only such fruit as had not been covered with the solution was affected the least. Such varieties as for years, and even last year, a favorable season, had suffered so severely that they were almost cracked to pieces, were perfectly smooth.

Sulphur, mechanically mixed with soap, had also been tried several times before in the shape of the so-called codlin-moth wash, but its effects, when used in this locality, had been nothing. Reports from sections with a warmer summer temperature show better results. It seems, therefore, that in a cool climate, when sulphur simply is used, it does not develop the vapor sufficiently strong. But the sulphide of soda, especially when the compound is used warm, gives a brisk action, and the germs of the fusicladium are killed.

As the varieties of fruits suffering from the fusicladium are affected in very different degree and at different time of development, some apples and pears being attacked already in bloom, it is evident that they cannot successfully all be treated alike.

According to this theory, we have arrived at the conclusion that the different varieties affected in different degrees require different modes of treatment.

Varieties of which the bloom already affected is not allowed to set.—For these I should recommend a very thorough spraying in the fall, and also in the spring before the blooming, and if the fruit should show signs of fungus, spray again after the setting.

Varieties blooming and setting before the fungus attacks them.—One thorough spraying after the fruit is set.

The appended figure, No. 1, shows the work of the fungus on a Winter Pearmain apple; *a*, the fruit in its natural size; *b*, a blotch enlarged. Both show plainly the rapid spread of the fungus destroying the tissue of the apple. The center is black with millions of growing spores; the circumference still shows the remnant of the epidermis. Such an apple will eventually be like the scabby fruit so often seen.

Fig. 2 shows the effect of the fungus on pear branches; *a* is a young one-year-old twig, showing the effect on leaf and bark, and similar to that on apples; *b*, a two-year-old branch, shows the disease in its secondary stage, such as can be seen in a badly affected Winter Nelis tree.

It should be distinctly understood that we do not claim to have proved that the sulphide of soda is a perfect remedy for the Winter Nelis blight, or for apples blighting in bloom, but we think it will prove so. The following remedies are suggested for trial against the latter two afflictions:

Remedies to be Tried.

1. Substitute, in place of concentrating lye or powdered caustic soda, *caustic potash* 98 per cent, now for sale in this city.

2. *Powder of lime and sulphate of copper*, as prepared in France and used successfully against the downy grape mildew—*Pernospora viticola*—(see Lambson Scribner's report on fungoid diseases, published by the Department of Agriculture) as follows:

Have the quicklime entirely slaked in the air. Take 200 pounds of the lime, which has first passed through a coarse sieve so as to remove foreign bodies. With 10 pounds of this lime and 30 of water make a clear milk of lime. Dissolve 20 pounds of bluestone (sulphate of copper, the purest possible) in 60 pounds of warm water. Let the solution cool to 68–77° F. Mix the solution with the milk of lime, and stir well. The remaining 190 pounds of lime is spread out on the hard ground, preferable on stone flagging or concrete, to a depth of about seven inches, and the mixed liquid being placed in watering pot, one man sprinkles the lime with it while another stirs and mixes it by means of an iron rake with very long teeth, then shovels it over and makes it into a heap. Let the powder, which is only moist, dry for some days; roll it after drying, sift it through a fine sieve and bag it. Two hundred pounds will be sufficient for over two acres of grapes. This powder might be dusted on trees by means of strong sulphur bellows, and should be used shortly before blooming.

3. Liquid solution of bluestone and lime: Fifty pounds of bluestone to 225 liters, then adding 50 pounds of lime in form of milk of lime. As this makes a too thick paste to pass through a spray nozzle, it will either have to be put on with a brush and diluted about one-half, when it will pass through a coarse spray.

4. Air-slaked lime has been used successfully by Dr. E. Kimball to counteract the fungus causing scab on apricots. It may likewise prove efficient on the Winter Nelis pear, dusted on at the time of blooming.

W. G. KLEE,
Inspector of Fruit Pests.

MONTANA AND NORTHERN WOOLS.—An Eastern exchange says: Dealers complain that Montana wools do not retain that pliability and sightliness which so distinguished them a few years ago. The inference for this alleged degeneracy is that the climate or other natural conditions of this mountainous section of the country are not what they gave promise of when sheep husbandry first received its prominence there, or that the system of breeding is imperfect or carelessly attended to. Perhaps none of the territory wools, so called, hold their good qualities so satisfactorily as do those that are grown in Kansas.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Another Good Grange Day.

The faithful Patrons of Eden Grange had a fine day for their ride from Haywards to Oakland, to attend Temescal Grange meeting last Saturday. A goodly delegation was present, although we were sorry to miss the familiar faces of many faithful Edenites. Brother and Sister Field, from Maine, were made gladly welcome by all California Grangers present.

Brother Chester, Master of Eden Grange, under Good of the Order, was called upon for whatever information he could give from headquarters. He responded in a very newsy way, alluding to the Grange already reorganized in Merced county, a charter list of 20 names awaiting organization at Hanford, and an open Grange meeting called by the Grange of Tulare City, to be held early in April. He also mentioned the ground was prepared and good seed ready for planting a new Grange at Delano, Kern county. He was also hopeful that by the aid of the members of San Jose Grange, a Grange at Saratoga or Los Gatos would yet be organized. This, with the other information given, and the fact that a Grange of 30 charter members was reported by Brother Ohleyer all ready for being instituted at West Butte, makes a pretty good showing for the early advancement of the Grange in this jurisdiction.

The Worthy Master stated that he had, by due notice, invited the Grange members of the late session of the Legislature to be present and give information, and state their views on the work of the Legislature, and discuss matters regarding future legislation for the interests of farming and other industries. While it was to be regretted that none of the legislators were present, the meeting was well entertained by discussion among brothers present, and the reading of a manly and timely communication from Bro. Geo. Ohleyer, Past Master of Yuba City Grange, as follows:

A Letter From Geo. Ohleyer.

To Temescal Grange:—Your notice of the meeting on the 19th inst., and invitation to Grange members of the late Legislature, including myself, to be present and give their experience at the recent session, and to advance suggestions for "future legislation concerning farming and other industrial interests," is before me; and as I cannot possibly attend on that day, I will venture a brief description of my experience and a hint in respect to the future.

The farmers in the late Legislature were fully up to the average in capacity, integrity and intelligence, but they lacked cohesiveness and numbers.

If "trading" is to be the rule (as it certainly was at the recent session), then the farmers and Grangers should have followed the example set them by those of other professions. If they failed to wield the influence that was expected of them, it must be ascribed to want of unity of purpose. Of the two leading political parties, one domineered the Senate and the other the Assembly, and in the beginning "King Caucus" issued his mandate and our farmers felt called upon to obey orders. Being divided and in the minority, they exerted no power in shaping the committees or controlling the appropriations which have swelled to greater proportions than that of any former Legislature.

Doubtless, like the writer, many, and perhaps all the members from the rural districts, lacked that schooling in the arts of the experienced legislator necessary to combat the trained manipulator.

We trusted too much to merit and not enough to organization—the old story—to correct which the Grange was instituted; and yet it seems we have not fully learned to trust one another. There were, however, but few Grangers in the Legislature, but those were true to themselves, to each other, and to their constituents. Had all the farmers been united, met together in caucus and private consultations, they could, to a great degree, have controlled legislation. Shall we learn a lesson from this circumstance? The wonder is not that so little was accomplished, but rather that so much was done by such a limited, unorganized, but faithful body of men. Their votes and influence always went to the right side of every proposition, and many good measures owe their adoption, and bad ones their defeat, to the vote of the farmers.

Commerce and agriculture, the great and growing industries of our State, had but few champions in either House, and least of all from the great commercial centers. These have shown an indifference truly appalling; they rested their cause in the hands of the farmers against whom they sought to combine on every important measure.

The future will have nothing better for us if we do not organize and make common cause.

Before another Legislature convenes, let it be understood that commerce and agriculture must unite, irrespective of party or politics, to the end that their strength may not be frittered away. We can trust their good intentions, but in organization only can they be made available.

I take great pleasure in announcing to you that on next Saturday a new Grange will be organized at West Butte, in this county, with a charter membership of 30 or over. The place is about 15 miles west of Yuba City, and the material is first class.

Hoping that you may have a most successful meeting, and that at some future time I may have the pleasure of meeting the brothers and sisters of Temescal Grange, I remain, fraternally yours, GEORGE OHLEYER.

Yuba City, March 16, 1887.

On motion of Sister Kelsey, a vote of thanks was passed to Brother Ohleyer for his excellent communication, with a cordial invitation for him to visit Temescal Grange at his earliest convenience.

Brother W. G. Klee, by request, mentioned the subject of legislative action during the past session, concerning horticultural interests, and enactments for protection from insect pests. Although the Legislature failed to pass all such laws needed, it was to be hoped that some benefit would be derived from the Acts which were finally passed.

Brother Amos Adams recommended that instructors in entomology be employed to travel into different sections of the State, and give lectures and instructions to the different schools from time to time. The same matters were spoken of at a later period of the meeting by Sister Kinney and others, and the speakers were requested to furnish some of the statements made for publication hereafter.

The fourth degree was conferred on William and Nellie Webster, children of J. V. Webster, Past Master of the State Grange (now absent on his ranch in San Luis Obispo county), and who, it was generally regretted, could not be present on the occasion. A new applicant for the degrees was also elected.

It often seems remarkable (not to say wonderful) how quickly rough boards are transformed into beautiful and handsomely decorated banquet tables, profusely supplied with substantials, at our Harvest Feasts. This is proverbial on Grange occasions, and the Harvest Feast spread before the gathering on this occasion was by no means an exception. After all had drank and eaten to their heart's content, the Worthy Master called upon the honored guests from Maine, when Brother Field in very pleasant terms congratulated Temescal Grange upon its promising new members, and also the young Patrons upon their admission to the ranks of so noble an Order. He mentioned forcibly the duties and obligations of both young and old members, expressing beautiful sentiments and encouragements for both old and young children of the Grange.

Brother Field was followed in an entertaining manner by Brothers Chester, Klee, Adams, Prothero, Frink, Sewall, Renwick, Goodenough, Perham, Dennis, Paine and Kelsey, and Sisters Paine, Perham, Henley, Brooks, Dennis, Anway, Dewey, Babcock, Renwick and other Patrons, keeping up a lively and pleasant time for more than an hour's duration.

A well-rendered recital was given by Sister Nellie Webster, and a splendid song by Sister Roxie Dennis.

On returning to the hall, an open meeting was held. Further discussion on the subject of the day was held of much interest. We regret not having space and time to report more fully at present.

Sonoma Grange Notes.

[Written for the RURAL PRESS by "OCCASIONAL."]

Santa Rosa Grange conferred the third and fourth degrees, and celebrated the Harvest Feast, Saturday, the 12th of March. A very large attendance of members and visiting Patrons from Bennett Valley and Sebastopol Granges made the meeting one of the most pleasant that has been held for months. Three applications for membership were received. Santa Rosa will be in good order for the fall meeting of the State Grange.

E. W. Davis, W. M. of Santa Rosa Grange, and his family were tendered a surprise party, at their home in Bennett valley, Saturday evening, March 19th. There were at least 60 Patrons present. The Worthy Master was taken completely by surprise. The self-invited Patrons brought a band of music and plenty of well-filled baskets, and a jollier crowd is seldom seen. Dancing, card-games, chat, fun and frolic, held high sway, while supper added to every one's delight. On departing the friends said that they would come again, without an invitation.

At the meeting of Sonoma County Pomona Grange, to be held Wednesday, the 20th of April, in addition to the regular business of the session, the following select program will be rendered: 1. Vocal quartette by members of Sebastopol Grange. 2. Address, J. P. Whitaker, of Bennett Valley Grange. 3. Select reading, Miss Fannie Gamble, Santa Rosa Grange. 4. Vocal solo, Mrs. G. W. Huntley, Sebastopol Grange. 5. Address, S. M. Martin, Two Rock Grange. 6. Vocal quartette, by members of Sebastopol Grange. 7. Address, S. T. Coulter, W. P. M., State Grange. 8. Suggestions, by Patrons. 9. Song, by the Grange.

THE ORDER APPRECIATED.—Referring to the same meeting spoken of by our "Occasional" correspondent, the *Republican* says: There is a new enthusiasm among the Grangers. The merits of the Order are just being discovered by many farmers. Santa Rosa Grange is sure to increase largely in membership during the summer, in anticipation of the grand session which is to be held in this city the coming October. Such a meeting as the one held by Santa Rosa Grange last Saturday does much good, and those members who were not fortunate enough to be present lost some of the joys of life that no one can afford to lose. Success to the Patrons of Husbandry, especially so long as we are invited to the Harvest Feasts.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Congress has adjourned, and, looking over its work, members of the Grange have reason to rejoice at the progress made toward a proper recognition of the just claims of agriculture for fair and equal legislation, and a voice in the councils of the Nation. Never before have the advantages of organized effort been so plainly shown. Without doubt, more than through all other causes combined, farmers united in the Grange secured the passage of the interstate commerce bill, the Hatch experimental station bill, defeated the persistent efforts—continued from other years—to remove all tariff duties upon "raw materials," preserved from amendment or destruction the oleomargarine law, again had the "Secretary of Agriculture" bill pass the House of Representatives, and for the *first* time secured the indorsement of the Senate for so just a measure, which was only finally lost in the rush of business during the closing hours. Yes, we can report progress, and our Order stands brighter and better before the country and the world than ever before.

Our winter campaign has been a successful one, and the sunshine of prosperity brightens our onward way. How true the words of good Bro. Aiken, of South Carolina: "The keel of the Grange ship was well laid. Its majestic sides were ribbed by the mechanism of profound thought. Its spars, braced by fraternal cords, have never been shattered by the fury of the storm. Its sails are still whole, and have been whitened by the friction of popular criticism. Often has it buoyed in turbid waters. Still oftener has it glided gracefully and triumphantly over the billows of prejudice, that lashed so furiously under its bow. To-day it floats in placid waters. Its haven has not yet been reached, nor will it be until every farmer in the land shall have received some of the benefits of its launching."

More and more do we hear of farmers' clubs changing their organization into Granges, and thus going up higher, taking a forward step. All that can be accomplished in the club can be brought about in the Grange and *much more besides*. The club, as a rule, confines its work to *local* matters, and having no formal connection with other clubs cannot well handle matters of State and National importance. It may *discuss* broad subjects, but there is no *unity* of *action*. We are always glad to hear of the organization of a farmers' club, not only because it is so much better than no organization, but because we know that the chances are good that it will become a Grange by-and-by.

"A nation in its industrial progress when the competition of the world is keen, cannot stand still. Three conditions only are possible. It may go forward, retrograde or perish." What a power the Grange must continue to be in this industrial progress of our country, and what a responsibility rests upon its membership in seeing that it is *real* progress.

"I would impress you with the duty of taking such steps, and adopting such measures, as will induce the people of our rural districts to rise to a fuller and clearer conception of the importance of an educational training, and cause them to more fully appreciate the intellectual man, remembering that our agricultural communities are great reservoirs from which must come those who will be expected to wield a great influence over society at large. The Grange should be made a school, indeed, in which the membership can be enlightened and prepared for a higher order of citizenship and be able to hold elevated positions in society. In this you should remember the duty of this progressive Order is not only to permit but to cause the brain to run in such channels and explore such ideas as will yield the greatest possible good to the human race."—*T. H. Kimbrough, Master Georgia State Grange.*

The following item from a personal letter from a Patron in Connecticut tells *how* it is done: "It's men that *make opportunities*. Deputies Geo. A. Bowen, of Windham county, and J. M. Hubbard, of Middlesex county, have been at work writing and talking. A month ago State Master J. H. Hale went down to Middlesex for two days to help Bro. Hubbard, and then three days with Bro. Bowen, and, as a result, each has *three* new Granges, which, with three more organized by State Master Hale lately, gives *nine new* Granges for Connecticut for February." It is well-systematized, *earnest* work and *united* effort that wins.

Here is another item to prove it again: Deputy Geo. C. Bowen, of Connecticut, organized Crystal Lake Grange, at Eastford, February 21st, with 40 charter members, 20 men and 20 women. He was aided by eight members of Little River Grange, and eight from Senexel Grange who attended to the singing, etc. "Everything went off promptly, without a hitch, and was made as impressive as possible."

All are not aware of the influence the Grange now has in public affairs. Fifty-four of the legislators and State officers of Maine to-day are members of the Order, and many of the recommendations of the Governor's message and a large number of the bills now before the Legislature were directly inspired by the Grange.

Progress.

Sixteen more new Granges:

Saybrook, No. 59, Middlesex county, Conn.
Crystal Lake, No. 60, Windham county, Conn.
Wolf Den, No. 61, Windham county, Conn.
Eureka, No. 62, Litchfield county, Conn.
Middlefield, No. 63, Middlesex county, Conn.
Barnstead, No. 119, Belknap county, N. H.
Barker, No 511, Broome county, N. Y.
Smithville Center, No. 512, Chenango county, N. Y.
Empire, No. 513, Broome county, N. Y.
Glen Aubrey, No. 614, Broome county, N. Y.
Fairview, No. 517, Tioga county, Pa.
Clinton, No. 287, Kennebec county, Me.
Albemarle, No. 574, Gates county, N. C.
Grant, No. 679, Huron county, Mich.
Bunker Hill, No. 635, Dawson county, Neb.
Capitol, No. 75, Arapaho county, Col.

Clinton Grange, No. 287, just organized in Kennebec county, Maine, had 73 charter members. There is no longer a limit as to numbers that may be admitted as charter members of a new Grange.

The Secretary of the National Grange has received letters from members of the Order who have moved into Washington Territory, asking authority to organize a Grange there. Bro. R. P. Boice, of Oregon, will look after them.

Illinois Patrons, at the late meeting of their State Grange, set their mark for 5000 new members during 1887, and they are *working* for them; and work wins.

One of the Granges in Michigan, in the printed program of subjects for discussion, and who will take part, says: "Excuses not in order this year."

Bro. H. M. Murray, Master of the Maryland State Grange, is arranging for a series of meetings for Bro. D. H. Thing, of Maine, in May and June.

A class of 25 was given the first and second degrees at West Dedham Grange, Mass., at a recent meeting.

Tennessee received 1318 new members last year. Reinstatements, 429.

"'Tis ours against the wrong
To battle for the right,
To cheer the struggling on
And give the inquiring light."

Newcastle Grange.

EDITORS PRESS:—Inclosed find list of officers elected for Newcastle Grange, No. 241, P. of H., for ensuing year:

R. N. Nixson, M.; J. R. Marston, O.; H. E. Parker, L.; F. B. Fitch, S.; Mrs. Blanchard, C.; Wm. Barter, T.; R. N. Scott, Sec.; J. Noris, A. S.; G. F. Perkins, G. K.; Mrs. L. C. Boggs, P.; Miss Jennie Page, F.; Mrs. J. A. Griffeth, Ceres; Miss Belle Boggs, L. A. S.; Effie Logan, Organist.

Newcastle Grange meets the first and fourth Saturdays in the month, at Good Templars' hall, Penryn. ROB'T N. SCOTT, Sec.

Newcastle, March 19, 1887.

PICNIC AT DANVILLE.—Bro. Geo. P. Loucks, of Valley Grange, and Bro. Chas. Wood, of Danville Grange, have visited us, and reported the action of Danville Grange for holding a picnic at Danville on Saturday, April 7th, to which it is hoped the Grangers in Contra Costa, Alameda and Solano counties will turn out in large numbers, and that large delegations will also be in attendance from other Granges. All of the officers of the State Grange are specially invited. It is the intention to secure one or more eminent speakers to address the Grange on some appropriate subject. Remembering the pleasant and successful Grange picnics previously held at Newark and Concord, we are fully confident that a large and successful gathering will be had.

SENATOR CHANDLER AT HOME.—The *Sutter Farmer* of last week speaks these pleasant words: Senator A. L. Chandler and his two daughters, Annie and Ida, spent several days the fore part of this week in this vicinity—visiting friends and constituents. The Senator was congratulated on all sides for his gallant fight and successful ending of the struggle in the Senate against the Walrath dam bill. Our household acknowledges a pleasant visit from them, which, however, was too brief. They are invited to repeat soon and often.

GRANGE ITEMS.—We gather from the *Patron* that Danville Grange enjoys good health, keeps up its semi-monthly meetings well, and has on the way a class of eight, whom they hope to initiate, with others, in April....Sacramento Grange instructed a class in the third and fourth degrees on the 12th, and indulged in a Harvest Feast....San Jose Grange has set apart April 2d for the sisters' debate on Woman Suffrage.

A FINE HORSE.—Mr. Martin Mendenhall, of Livermore, who has been a pioneer in breeding fine roadsters, exhibited Grand Moor, Jr., a five-year-old stallion, at the Livermore horse show, on the 13th inst. He is 16 hands high, weighs 1180 pounds, with fine action and highly finished. His pedigree is from the best strains on the side of his sire, the "Grand Moor," the same breed as the celebrated family of L. J. Rose, of Los Angeles. His dam, "Corisands," was from Iowa Chief, that made a record of 2:24 at the Sacramento State Fair, in 1879. He was awarded the blue ribbon at this exhibition, and we expect to insert a cut and full pedigree and description in the RURAL, some time this month.

BRANCH NORMAL SCHOOL.—A lively rivalry exists between Chico, Gridley, Oroville, Red Bluff and Redding, as to which place shall be the site of the Normal School, lately authorized by the Legislature to be established at some point north of Marysville. Each offers great inducements, and a party of the Trustees, including Gov. Bartlett, Supt. of Public Instruction Hoitt, J. R. Brierly, T. Ellard Beans, Lawrence Arthur and Ralph Lowe, are to make a tour of inspection among the competing towns this week and next.

WILL NOT LEGALIZE LOTTERIES.—Governors Zulick, of Arizona, and Stevenson, of Nevada, have shown sound wisdom and moral nerve in vetoing the infamous bills which passed their respective (if not respectable) Legislatures, authorizing the organization of lottery companies. It is cheering to find such executive officers with "the courage of their convictions."

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

GRAIN AND GRASS. — Haywards *Journal*, March 19: Grain all over the valley and in the hills never made such progress as during the past two weeks. Around Mt. Eden and Haywards many early-sown fields are three and four inches high. Grain resown last week is springing up at a great rate. The soil is in fine condition. The feed in the hills was never better and stock is rapidly showing the benefit.

Butte.

EVERYTHING LOVELY.—Oroville *Register*, March 17: Farmers from Chico, Nord, Gridley, Biggs, Durham and Moore Station, in Oroville, this week, as jurymen, report both wheat and barley looking finely and growing rapidly. The fruit trees are in full blossom and promise a fine crop. Vegetables of all kinds are doing well. The mountain roads are fast getting in good condition and travel is commencing.

El Dorado.

COUNTY JOTTINGS. — Placerville *Observer*, March 15: H. H. McClellan, near Grizzly Flat, 2875 feet above sea level, raised last year 10 tons of potatoes, which realized to the owner two cents per pound on the place. On this same ranch are raised all kinds of garden vegetables. Some people think that nothing but icebergs and grizzly bears can be raised in this high altitude; but all fruits save peaches grow to perfection, being of better flavor and keeping qualities than those raised on valley lands. The apples and pears are immense, and sound and perfect, the trees being entirely free from all pests. One firm—that of W. R. Strong & Co., of Sacramento—has, to our knowledge, sold during this season 25,000 fruit trees in our county up to the present time.

Fresno.

SHEEP INTERESTS. — *Expositor*, March 16: Frank Lewis and W. J. Dickey have purchased a band of about 3000 sheep of Wm. Caruthers of Liberty, and Lewis will take charge of them this summer. Sheep are doing well here this season, and the market is advantageous, being about $4 per head for a good grade of animals.

Los Angeles.

THE RYE COMIN' THROUGH.—Los Angeles *Times*, March 16: Six days ago Mr. Johnson, of the San Rafael ranch, sowed several acres of rye. There has been no rain since, yet the rye stood one and a half inches high yesterday. A party of his friends visited the ranch, and when informed that the grain was put in the ground only five days before could hardly believe their eyes.

BATTLING THE BUGS.—Pomona *Times-Courier*, March 19: The local insect inspectors are making a vigorous war on the scale bugs, and all trees coming into this station are subjected to a close examination. In a number of cases the trees have been destroyed. The "white scale" has not made its appearance since found on one tree in the Wolf orchard, which was destroyed.

Merced.

AGRICULTURAL SOCIETY PROJECTED.—Merced *Argus*, March 19: Last Saturday a meeting of citizens interested in agriculture, horticulture, breeding fine stock and in the general prosperity of the county, took place at Leeker's hall. A committee, composed of S. M. Smith, Wm. Mitchell and W. L. Ashe, was appointed to select suitable grounds near town for racecourse, fair ground and experimental gardens, and a Committee on Finance, composed of 24 leading citizens, is to canvass for subscriptions to the capital stock of the association, said committees to report on Saturday, the 26th inst., when it is hoped arrangements will be made to effect a permanent organization.

CHEERING OUTLOOK.—Grain crops have advanced rapidly the past two weeks, and now promise an immense cereal harvest next summer. The acreage in wheat, barley and rye is far greater in the county this year than ever before, an unusually large percentage being summer-fallow, which is considered safe for a crop, even if the future rainfall is light. Stockmen, except in a few localities along the San Joaquin, report pasturage good and all kinds of stock thriving. An unusually large percentage of lambs are reported by sheepmen, and the weather has been so pleasant and grass so good, that flocks are in fine condition, with feed enough now on the ground to carry them until time to drive to the mountain pastures for the summer. The orchards promise a full crop of most kinds of fruit, and the vineyards likewise show up well for so early in the season.

Monterey.

PROSPECTS. — Castroville Cor. *Democrat*, March 17: Crops are looking finely. The farmers are about through seeding and are now preparing the ground for summer crops, such as buckwheat, mustard, and potatoes. With a few spring showers we will raise a good crop in this section.

San Luis Obispo.

HOW THEY GROW.—*Leader:* C. Johnson, several miles west of Paso Robles, has apricot trees five summers old from seed planted in April, which now measure 18 inches in circumference; apple trees seven years old from setting, from trees which were two years old when set, which now measure 22 inches in circumference. Mr. Johnson raises blackberries, and the growth of one bush which he allowed to grow without topping reached the remarkable hight of 16 feet. He also has figs, almonds, grapes and numerous other kinds of fruit, which are all doing remarkably well.

Sacramento.

AMBITIOUS BARLEY.—*Bee*, March 17: Col. McNasser to-day brought to this office a bunch of barley three feet and a half high. The barley was sown on the Riverside road, in January. The heads of the grain are long and well developed, and the Colonel has 50 acres of it.

Solano.

IN CORDELIA ORCHARDS.—Dixon *Tribune*, March 19: F. S. Jones has set out 800 olive trees, and will put out 700 more next year. He has also grafted 600 Centennial cherries on common stock and next year will increase the number to 2000. (They are the large white cherries, used for canning purposes.) I plucked large, luscious oranges from trees in the Batmale vineyard this week. The frost had not fallen upon these trees for seven years. The wonder is that the cultivation of the orange has not become more general in this community.

Tulare.

IMMIGRATION ASSOCIATION WORK.—At a recent meeting of the County Immigration Association, the Visalia *Times* says that Messrs. Morton and Baker, who had lately been in Los Angeles, gave a description of the work going on at the headquarters of the association in that city, under Mr. Ayers' charge, and exhibited photographs of the display. They stated that from 400 to 1000 Eastern people visit the headquarters daily, and all express themselves as surprised at the wonderful productiveness of Tulare soil. Mr. Ayers is kept busy explaining to immigrants the varied resources of the county and the advantages to be gained by settling there. The secretary estimates that it will take $700 per month to maintain the rooms at Los Angeles and pay for the printing necessary to advertise the county properly.

Tuolumne.

CITRUS SPECIMENS. — Julius Pache lately showed a reporter of the Stockton *Independent* several fine oranges, grown in the Reymand Bros.' orchard at Green Springs, Mountain Pass. The oranges were large and peculiarly sweet, and went to prove that fine citrus fruit can be raised in Tuolumne county.

ARIZONA.

RAISIN VINEYARD.—Los Angeles *Herald*, March 19: McPherson Bros., the raisin-makers of Orange, in this county, have just purchased 640 acres of land near Phœnix, Arizona, and will plant the same with Muscat vines. This will cause the setting of about 400,000 vines of the raisin grape.

HORTICULTURAL SOCIETY.—Phœnix *Herald:* At the last semi-monthly meeting of the Arizona Fruit Union a number of new members were reported by the secretary. A very practical and valuable paper by O. F. Thornton, on "Fruit Culture for Profit," was read and discussed. The interest of our citizens in the union is steadily increasing, and it is the aim of its managers to secure a permanent hall for exhibits and meetings as soon as possible.

NEW MEXICO.

STOCKMEN HAPPY.—Vermejo Cor. Raton *Range*, March 7: It is very gratifying to take a trip through our mountain country and note the splendid condition of stock and range. Cows with calves following, old bulls, mares, suckling colts, and in fact all kinds of stock, are fat; and why shouldn't they be? Although the winter is pretty well gone, and new grass will soon be here, there is yet plenty of old grass left for the healthy sustenance of stock. The indications are that the coming calf-crop will be large. We venture the prediction that 80 per cent of the cows on this range will calve this year. Young calves can be seen on the range already, fat and sleek as butter. People feel good over the condition of everything.

OREGON.

IN MULTNOMAH COUNTY.—*Willamette Farmer*, March 18: Fears were entertained that winter wheat was considerably damaged by the cold winds and the freeze, but four sunny days have proved different, and a beautiful green tint has taken the place of yellow. In a few days the plows will be running to get the spring crops in. For the first time in this part of Oregon many of the farmers were out of hay, which caused great inconvenience. Last fall farmers had hay to sell at $7 to $9 per ton; this month the same parties paid $15 per ton. When Oregon farmers learn to economize like Eastern farmers and save their straw and other useful articles, they will never know what want is.

FRUIT PROSPECTS.—It is said that the buds of many fruits, but chiefly peaches, in Southern Oregon were killed during the winter. The Jacksonville *Times* denies that this is generally true of that section, but it is probably true as to the peach both there and here. A paragraph from Wasco county says the late cold spell ruined the peach crop of that section and in some cases the trees were killed. Almond and other tender nut trees were also killed, but general varieties of apples, pear, plum, and prune are all right. The *West Side* says of Polk county that the peach crop is ruined there also; as a general thing Western Oregon—and probably all Oregon—will not have much of a peach crop in 1887. Grapes cannot be injured, as they do not start easily, and as yet all vines are waiting for spring.

Sonoma County Notes.

EDITORS PRESS:—The farmer or Granger who would ask for better growing weather than we have had in Sonoma county the past fortnight ought to be expelled from any agricultural society he may belong to. He is not content with letting well enough alone. Nature could do no more for grains or grasses than has been done so far in the month of March. Live-stock already show a decided improvement, and fat beef and mutton are quite plenty.

Vineyard-work is well in hand. Everybody is through pruning, and many of the smaller vineyards have had the first plowing. Several acres of new vines of foreign varieties have been set out in the county this spring.

It has been proven beyond question that the soil and climate of Sonoma are well adapted to the growth of the olive. Several thousand olive trees have been planted in the vicinity of Santa Rosa. The owners of sheep have had a very favorable winter. There is but little complaint about the loss of lambs. Shearing has not yet begun, but the nomadic "shearer" is getting ready for the spring campaign.

The Santa Rosa Woolen Mill, which has been shut down for some time, is to be offered for sale at auction on Saturday, March 26th.

We have been reading in the daily papers that California is to have a boom. There is no doubt of it, and there is less doubt about the boom that Sonoma county is now enjoying. Never before has property hereabout been in such demand and at such prices. Several very large real estate sales have already been made, and report says that others will soon be completed. Such sales are for the best interests of all concerned. Let the good work go on.

Grain-sowing is nearly finished. Corn ground is being put in order. Hop-yards are flourishing and promise well. Fruit trees are blooming, and the outlook for their crop is encouraging.

Roads are in good condition.

Lumber mills are starting for the summer run.

Santa Rosa is booming in anticipation of railroad communication with the S. P. system at Benicia.

The Sonoma County Agricultural Park Association are preparing for the annual fair at Santa Rosa.

Country schools are in session.

Business is brisk, and getting better.

OCCASIONAL.

Santa Rosa, March 21, 1887.

MUST WORK OR FAST.—The authorities at Santa Rosa are treating tramps, and other offenders in duress, upon the apostolic principle; "If any will not work, neither shall he eat." The *Republican* says that Jailer Breitenbach has put the chain-gang to work improving the Court-house grounds. This is done in compliance with an order of the Board of Supervisors, compelling all petty prisoners to work. The Board has also instructed the jailer to ornament each prisoner who is taken out to work with a heavy ball and chain, and in case they refuse to work, to furnish them with extremely light diet, bread and water. Monday morning two refractory vags declined to work unless the ball and chain was removed. It is quite probable that after two or three days' subsistence on bread and water, they will change their minds.

THE WRIGHT IRRIGATION ACT.—We give in full on other pages of this issue the important law on irrigation, which will henceforth be known by the name of its author, Hon. C. C. Wright, of Stanislaus county. The text which we give will enable all our readers who are interested in irrigation to inform themselves as to what preliminary steps it is necessary to take to secure the co-operation of their neighbors and the approval of all interested in the formation of districts. This measure is regarded as one of the greatest importance in paving the way for a great extension of the irrigated area of the State.

ALAMEDA NOTES.—Our special correspondent made a flying trip through Alameda, to attend the Livermore horse and cattle show. In the valley from Niles to Livermore, there is extensive work going on in laying out new orchards and vineyards, including the planting of citrus orchards. Mr. James Shinn, of Niles, has orange trees which he planted ten years ago from Tahiti seed. These seedlings are now bearing fine fruit without irrigation. A large limb loaded with oranges was exhibited at Niles, by Mr. Shinn, that was pronounced by Mr. John Rock, of the California Nursery Co., a good sample of the orange.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

The Interstate Commission.

The President, after long deliberation, has announced his list of commissioners under the Interstate Commerce Act, as follows: Thos. M. Cooley, of Michigan, six years; Wm. R. Morrison, of Illinois, five years; Aug. Schoonmaker, of New York, four years; Aldace F. Walker, of Vermont, three years; and Walter L. Bragg, of Alabama, for two years. Morrison, Schoonmaker and Bragg are Democrats, Cooley and Walker, Republicans. It is claimed that the interest of the railroads is well represented on the commission.

Rumors are rife of material advance in interstate freight rates, and shippers of various kinds of produce are anxious as to the effects upon the material they handle. The Sacramento *Bee* has gained an intimation of what may occur in rates which we give, on the authority of that journal:

The following is a partial list of freight rates to go into effect on April 4th, when the Interstate Commerce Act will be in operation:

Between California Terminals and	1st.	2d	3d.	4th.	5th.
Missouri river	$4 00	$3 50	$3 00	$2 50	$2 25
St. Louis	4 50	3 85	3 20	2 65	2 35
Chicago	4 70	4 00	3 25	2 75	2 45
Denver	3 00	2 65	2 30	1 95	1 70

Between California Terminals and	A.	B.	C.	D.	E.
Missouri river	$2 10	$1 75	$1 40	$1 10	$1 00
St. Louis	2 20	1 85	1 50	1 20	1 10
Chicago	2 30	1 95	1 55	1 25	1 15
Denver	1 50	1 20	95	85	80

There is a special tariff on the following articles from and to California points and the Missouri river: Beans, $1.40 per 100 pounds; borax, $1.10: canned goods and strained honey, $1.40; hops, $1.75 whale, fish and cocoa oils, $1.10; vegetables, $1.00; barley, 65 cents; wire, $1.90; and oranges, per 100 pounds, $1.00.

The classification under this tariff is very different from that hitherto in vogue, so that it is difficult to say just what the increase will be on any given kind of freight. But the new rates are known to be much higher than the old—in some instances four or five times as much.

This is the tariff as revised by the Joint Western Classification Committee, January 1, 1887. It divides all freight that may be shipped into ten classes, running from 1 to 5 and from A to E inclusive. Its object is to enable the present "short-haul" rates to be maintained undisturbed by the new law. Another tariff has been framed for submission to the Interstate Commission, but it may be 60 or 90 days before any action can be had upon it. This proposed tariff is much lower than the one agreed upon to go into effect on April 4th. Under a liberal interpretation of the law, the lower tariff could be adopted.

Of course, if rates are much raised, the competition by clipper ship and by Panama will come into operation, and much of our produce can go that way.

WE are always pleased to bestow commendation where it is well earned, and to note evidences of business sagacity and enterprise when displayed by the business men of the coast. In this connection Messrs. Jones & Givens, who are becoming more and more favorably known with each season, are particularly worthy of mention. The "Glidden fence-wire," which they represent, is by their activity and energy taking prominent place in that class of manufactures, and can deservedly be said to now occupy a standard position. One thing we are glad to assure our readers, and that is that all we hear of this firm leads us to place full confidence in their statements concerning the "Glidden." To use an old and trite aphorism, "their word is as good as their bond." Especial attention is called to their advertisement in this issue.

PACIFIC BUSINESS COLLEGE.—This old-established institution at 320 Post street is still pursuing its excellent course in preparing young people for business pursuits. Of late there have been considerable changes in business methods, correspondence, etc., and the Pacific College keeps well up in its instruction with all real improvements and progress. The location of the college is one of the handsomest in the city. Full information as to courses, terms, etc., can be had by addressing the principals, Profs. Chamberlain and Robinson.

"FIRST-CLASS IN ALL DEPARTMENTS."—Any one wishing to subscribe for the RURAL PRESS, an agricultural paper published at S. F., a first-class paper in all its departments, can do so at this office. Subscription, $3 a year. If you want light on the subjects of farming, horticulture, etc.—the best authority—now is the time to subscribe.—*Shasta Co. Index.*

THE "Allegretti process" for preserving fruit in bulk has been attracting a good deal of notice among growers and shippers for some time past, and the inventor's advertisement in another column of our paper shows that he is now ready for business.

SIXTY fine oranges have been picked by J. McNeil, residing at 235 San Jose avenue, between Twenty-fourth and Twenty-fifth streets, in San Francisco, from an orange tree growing in the open air in his back garden.

LUSK'S NURSERIES.—We understand that the affairs of Lusk & Co., nurserymen at Temescal, are now being finally arranged and the institution will be closed.

☞ See advertisement elsewhere "TRAVELING AGENTS WANTED."



Lines.

[Written for the RURAL PRESS by FANNIE H. AVERY.]

Intense emotions swell within my soul,
Whene'er I view the dark-blue starlit skies;
And ponder on the meaning of the whole,
Spread in immensity before my eyes.

Oh, what a thought! that we may thus behold
That mighty pageant of transcendent worth—
Those suns which lighten satellites untold—
From the small planet where we have our birth.

The glorious sight disperses all my pride,
And yet exalts my awestruck soul on high;
What is the earth to those orbs multiplied?
Yet one may apprehend them weak as I!

A Family Despot.

[Written for the RURAL PRESS by ELSIE ANGE.]

It was in the middle of the forenoon one Monday, and the feminine members of the Masters abode were inhaling an atmosphere freighted with steam and seasoned with odors of soap and sal-soda and other ingredients that combine to make the program of wash-day. Without, the lines were full of linen, bleaching and drying most felicitously in a radiant glow of sunlight. This fact was, of itself, enough to make Mrs. Masters good-natured, for the lines in the neighboring yards were waiting to be adorned, and she loved to be ahead of her neighbors on wash-day. It was so pleasant, after her work was finished, to stand at her windows and criticise their tardy work; and Mrs. Masters was no lenient critic. According to her statement, the clothes in the neighboring yards were a disgrace to be seen and a perpetual reproach to those who pretended to call them washed.

You will conclude that Mrs. Masters was not a pleasant person to have for a neighbor, and as she prided herself upon being a plain-spoken woman, it must be admitted that she was not. Indeed, she had earned the reputation of being a meddling busybody by acquaintances and neighbors; but while the former could drop her, and the latter could move away, there was a class of people that could do nothing but submit to her petty tyranny. These, her relatives, were to be pitied, for she ruled them with a rod of iron. There was no one in the world who would carry in her wake such annoyance and unhappiness as Mrs. Masters, and she gloried in it. Her hand on the bell-knob, her footstep in the hall, were enough to still the happy peal of laughter or the pleasant flow of chat that had preceded her entrance, for she was a literal wet blanket. Nothing was too sacred for her to keep to herself. Family secrets and infelicities were proclaimed by her from the housetop until her relatives' lips became as sealed in her presence as though she were a perfect stranger.

There was one thing Mrs. Masters could not forgive her people for. They had met with *success*. Her brothers were men of influence in the community; her sisters were women of wealth and position. Mr. Masters, now an elderly man, still stood at the blacksmith's forge. He would be always poor and unknown. Mrs. Masters fought against and smarted under the difference between her circumstances and theirs; and she tried to humble her prosperous relatives by accounts of their start in life. As they did not think it was necessary to make explanations about their humble origin and all the whys and wherefores connected with their advance in the world, Mrs. Masters became their mouthpiece, and many a precious bit of gossip was worn threadbare by those of her listeners who were jealous and maliciously inclined.

But we have wandered far away from Mrs. Masters' washroom. Since then, the flannels have been satisfactorily laundried, and have undergone much shaking and snapping preliminary to their suspension in the sunniest part of the yard, for Mrs. Masters especially prides herself upon her "flannins;" and the colored clothes lie in the rinsing water. Then follows a pause as far as the washing is concerned, for a note has arrived which mother and daughter are discussing. It is as follows:

SUNDAY, P. M.

Dear Maria: We hope you are all well, as we have not seen any of you during the past week. Will you and the girls come and take lunch with us on Wednesday? Your affectionate sister,

JOSEPHINE GORDON.

The girls were delighted, for Aunt Josie's was a charming place to visit, and her lunches were always delicious. But while they expressed their pleasure, their mother was meditative. She immediately discerned something behind the note. There was a *motive*, she knew, in sending it, and she would find out what it was if she died in the attempt. No, she had not been to Josie's for a week; and was not the note equivalent to a request that she stay away until Wednesday? Mrs. Masters loved to pop in upon people unawares. And would that note keep her from doing so? Not if she knew Maria Masters. At last she was aroused from her study by the sound of her daughters' voices.

"Yes," Jennie was saying, "we must take mother's plate to the dentist's this afternoon."

"You need not worry about it to-day; to-morrow will do," said Mrs. Masters, promptly. "I am goin' to dress and go out at one't."

"But, mother, you are such a fright, with three of your front teeth gone! You wouldn't go to church yesterday, you know; and your hair looks so thin when it isn't crimped."

But they may as well have talked to the wind. In less than an hour Mrs. Masters was dressed and giving her parting injunctions at the street door.

"Remember you are to have the cold beef for lunch, and what is left you are to stew for dinner. Yes, and make a bread puddin' and be careful of the eggs."

The Misses Masters enjoyed having their mother go off on one of her jaunts. It meant for them something extra for lunch and an easy time for the rest of the day, and also a budget of news when she came home. But it was so late when their mother returned that they were all asleep, and they heard nothing of her day's adventures until the next morning at breakfast. There was an exultant look in Mrs. Masters' eyes as she began her recital:

"Ah, didn't I know that something was in the wind when that note came yesterday? Catch me for not scentin' a secret! First of all, I went to Reuben's. It was onconvenient, but if any one knows what's goin' on at Josie's, it is Alice. For another thing, I wanted a hot lunch after the washin'. Well, I took Alice by surprise. I love to take folks like her by surprise. She is so hightoned and stylish. She opened the door herself, and she had on a faded wrapper out at the elbows, and I could see that she was mad, although she made believe she was glad to see me. And what do you think, she had been washin'! She said her servant had left Saturday and she had been disappointed in gettin' another, and she had washed a few small pieces herself. I looked at 'em and told her they weren't half washed. We had a beggarly lunch—cold meat, that I detest." (Mrs. Masters forgot to mention the chocolate, and fruit and custard, she had done full justice to.) "I gave her a piece of my mind about not havin' good, nourishin' food. I told her no wonder she was pale, that her health and Reuben's would be broken down unless she changed her diet, and she sighed and looked ill-used. But I wanted to find out about Josie, and I asked if she had seen her lately. She said, 'Yes; last Friday,' and I noticed she got nervous; so I knew for sure there was somethin' they wanted to keep from me. I jest looked her through and through, and then I said, in a knowin' way: 'Of course, *you* have been invited to their grand doin's this week.' She colored, and asked what I meant. 'If you don't know, nobody does,' said I. 'But, perhaps, Josie is gettin' above you as well as me.' I knew that would fetch her, and she said: 'Oh! If you mean that I have not been asked to dine with the Somervilles, you are right—I am not acquainted with them.' I had gained a pint. The Somervilles are awful rich, and one day they called on Josie while I was there, and she took good care that I didn't go downstairs to meet them. I thought of it when Alice spoke, and although I was dyin' to hear more I kept mum, and Alice said: 'The Somervilles start for Europe next Wednesday.' Then I knew why we had received the note yesterday. I nodded, as though I knew all about it; and as I love to take folks down, especially proudies like Alice, I asked: 'Where did you pick up that old wrapper? It is only fit for the ragbag.' She said she knew it, and, if I would excuse her, she would change it. In a little while she came downstairs in one of her nobby dresses, and just as she was steppin' in the parlor the bell rung, and it was her minister. I would have given ten dollars if he had caught her in that shabby old rig. He wouldn't come in, and I heard him talkin' about some church affair, and he said he knew he could depend upon her, and my blood boiled. Why do every one make such a fuss over Alice? When she came back I twitted her about lettin' him stand at the door. I knew she didn't want him to see me, and I told her so, and I left her all of a tremble with my plain speakin', and I'm glad she knows my opinion of her.

"I had just got about a block from the house when who should come along in a buggy but Reuben himself! He pulled up to the sidewalk and said: 'Oh, 'Ria, have you been to our house? How did you find Alice?' I told him she was well. 'I am glad to hear it,' said he. 'The poor child looked so pale this mornin' that I'm goin' to take her for a drive to see if it will brighten her up a little.' I tell you it made me mad. He is my brother, and it was his duty to give me a lift and take me to Anna's. But did he do it? He may as well have been a stranger as a brother, so I spoke up: 'Child, indeed! You may as well call her a baby at onct. Why, when I was her age I had five children and no time for drives.' Then Reuben laughed as he always does in his aggravatin' way. 'Ah, 'Ria,' said he. 'We can only expect to find but one woman as remarkable as you in the family. Come again soon. Good-bye.' Did you ever hear of such insolence? Well, it took me a good hour to get to Anna's, and then she was not home. I never saw such a gadabout as Anna, and don't see what takes her out on Mondays. I went upstairs and took off my things, and looked in her closets to see if she had anything new, and for a wonder she hadn't. Then, as I like company, I went down to the kitchen and set with Susan. Well, that poor thing had all the clothes to fold, and the dinner to get, and I don't know what else. I sympathized with her and advised her to strike for higher pay, as Anna's girls were always overworked. I tell you I'm a friend of the workin' classes, and I'm not ashamed to own it. I remember the time when Anna had to do everything herself, but riches have spoilt her. By and by she came in, and she looked as fierce as a meat-ax when she found me with Susan. I knew right away that I would have to play my cards extra well if I wanted to find out anything about Josie and the Somervilles, so I said in a jokin' way: 'Well, Anna, were *you* good enough to be asked to dine with the Somervilles?' I saw that she started; but she said in her icy way: 'No. I am barely acquainted with them.' Then I got up and commenced tyin' on my bonnet, and Anna got excited. 'You are not goin' yet, Maria? Stay to dinner.' But I had made good use of my eyes, and as I'm not over-partial to biled mutton and apple pie, I jest shook my head and declined. Then Anna said, very anxious-like: 'Is there any reason why you should hurry home just now?' 'No,' said I. 'I'm goin' to run 'round to Josie's to see how they are. I didn't see them all last week.' Then Anna got mad. 'I don't see what you want to go there for, when you are invited for Wednesday. You will only put them about; and what do you care for the Somervilles, or they for you?' But I wasn't goin' to be bluffed, 'specially when I had the whole mystery in a nut-shell. You see they were so afraid I would take them by surprise that they got up the lunch to keep me away. Yes, and Anna had had a finger in the pie, as usual. Do you think I would stay at Anna's after that? No; I left her turnin' from red to white, but the ice in her mouth and the fire in her eyes couldn't frighten me, and I wanted Josie's folks to see that they couldn't outwit Maria Masters. Dear me! I never wanted to be rich so badly in my life as I did when I walked through the Gordons' grounds last night. It seemed that *I* ought to be livin' there. That style would jest suit my notions. I imagined it was all mine as I walked up the stone steps and pulled the bell; but I did not feel so when that saucy mulatto boy showed me in with one of his condescendin' grins. I could jest read his thoughts in his impudent face: 'Here comes the poor relation!' So I gave him a scornful glance, and walked upstairs to surprise them. At last, after I had opened half a dozen doors, I found the girls. They were all rigged up, and were laughin' as usual; but they sobered up quick enough when they saw me. You would have thought I was a whale or somethin' terrible, the way their mouths fell and their eyes stared. Instead of runnin' to meet me, and takin' off my things, they opened their mouths and screamed: 'Mamma! O mamma! Here is Aunt Maria!' Then Josie came in all dressed up in ruby velvet and cream-colored satin, and her face covered with mustache powder."

["Pistachio, mother," corrected Della Masters.]

"Well, it is all the same. I wish you would not interrupt me. What was I sayin'? Oh, yes—Josie came in. 'Why, Maria,' said she; 'didn't you get my note?' 'What note?' said I; 'I have been out all day.' I don't think it's wrong to fib when folks are sly and underhanded. Then Josie sighed, and for the first time I felt a little sorry. Alice is all gentleness and tears, and always acts as though she is a pigeon in the clutches of a hawk, and I detest her for it. Then Anna is all ice and fire, and only her dignity keeps her from fightin', and I have no pity for her. But Josie is so mild and sweet-tempered, and she can jest make you feel mean with a word or a look. She some way reminds me of my mother. So I said I was sorry if I had come at an onconvenient time, and I would go. The girls looked so pleased that my blood began to bile. I felt like givin' them a piece of my mind; but Josie spoke up: 'No, you must stay, Maria, as we have dinner in half an hour.' I went down to the parlors and set where I could see the rich folks; and when their carriage came rollin' up the drive and I saw the pompous coachman, and the genteel footman, and the carriage stopped at the steps, I did feel so peculiar! The chills chased each other up and down my spine; there was a buzzin' in my ears and a mist before my eyes. I suppose I was frightened. Then I thought of so many things that never troubled me before. I thought of my missin' teeth, and my thin hair, and my hands puckered with the washin', and I wondered if I would make many mistakes when I talked. I would have bolted from the room, but I felt as though I was glued to the chair. This all lasted until I heard Josie sayin', 'My sister—Mrs. Masters,' and I found myself shakin' hands with a very sober-lookin' man and a plain little lady, then two young dudes and a stylish girl, and we all went to dinner. I was surprised to find such plain fare for rich people. There was soup, roast beef and vegetables; and for dessert, fruit, sponge cake and floatin' island. There was no wine, and Mr. Somerville took neither tea nor coffee — simply a glass of water. I guess we were a couple of hours at the table, and they talked and acted just like common folks. After dinner I asked Josie why there had been no extrys. She said the Somervilles were strictly temperate people and believed in simplicity. I wanted to ask more about their stingy notions, but Josie didn't give me the chance. We had rather a pleasant evenin'. The young people played and sung and had a dance. I sat next to Mrs. Somerville for awhile; and she was such a nice, chatty little body I felt just as easy as I did with my own folks, only I did not fancy the way she looked at my teeth. I said at last: 'You see I have met with a mishap. Do your teeth ever break?' She said no, and did not seem to feel complimented because I thought she wore false teeth. She admired Josie very much and said it didn't seem possible that she was the mother of her girls. 'Yes,' said I; 'she believes in fixin' up. Now, I am 50 and am not ashamed to own it. I think it is poor taste for women of her and my age to wear such young colors.' Mrs. Somerville stared, and I felt like tellin' her a few things that would make her open her eyes; but Marie and Frankie came up—the impudent minxes!—and changed the conversation. They were afraid that I would let out that their mother was learnin' the dressmaker's trade when she got married, and that their father kept a shabby little machine-shop, and the house where they began housekeepin' could stand in the middle of the drawin'-room. I would love to take those upstarts down a peg or two; they need it. Then we got lookin' over some engravin's. I saw Mr. Somerville was very attentive to Josie, and so were the young fellers for that matter, and her husband was admirin' her as usual, and I thought she needed takin' down, too; and I asked her if she would lend me her glasses, that I had left mine home. And would you believe it, her husband burst out laughin' and said: 'Now, that is pretty good!' Then he rubbed his hands and laughed louder than ever, and they all started in, and you'd have thought I had got off the funniest joke in the world."

"But, mother," interrupted Jennie, "Aunt Josie is 14 years younger than you, and she does not wear glasses."

"She will need them soon enough," answered Mrs. Masters, grimly. "I was indignant when they all laughed at me. It was because I am poor; but every dog has his day, and perhaps mine is comin' by and by. There is nothin' hurts me like ridicule, and I was pretty quiet after that. I think Josie knew my feelin's were wounded, because when I was leavin' she slipped $20 in my hand and told me to get my teeth fixed. Mrs. Somerville was very nice, and said she hoped we would meet again; so I shall call on her when she returns from Europe. When I got downstairs I found a coupe waitin' for me; and jest as I was gettin' in I discovered that I had left my purse. I always like to leave somethin', for it gives me a chance to hear what people say behind my back. So I stole upstairs very softly and saw Mrs. Somerville with her hand on Josie's arm, and she was laughin', so amused-like while she talked; and I heard her say: 'She is as like my cousin as two peas. I was thinkin' of Julia all evenin'. She is the aristocrat [autocrat] of the family, and makes us all stand round.' I knew she was talkin' about me, but before I could catch Josie's answer, that officious Marie came bouncin' in with my purse, and I was obliged to go. But, mark my word for it, I'll find out who that Julia is; yes, I'll move heaven and earth, but I'll get track of her and see if she is onfortunate enough to be a poor relation."

I flung a stone into the air,
Where it might fall I did not care;
For who is not tempted, sometimes, to try
How far he can make a pebble fly?
I breathed a curse into the air,
And thought that none would hear me swear.
For who can hear through a two-brick wall
The wrathful words a man lets fall?
Two days later, nearly dead,
I found a tramp with a broken head;
And I heard the oath repeated with glee
By my youngest child, a girl of three.

—*Detroit Free Press.*

EUROPE'S best dressed woman is said to be the Princess of Wales. She dresses not only well, but sensibly. She has never adopted the voluminous crinolet declared necessary by French *couturieres*, because she is too wise to cumber her elegant form with such a monstrosity. What mother would not lament if her young daughter grew up so shaped that the fashionable tournure was unnecessary? The dresses of the Princess always fit to perfection, but they are cut to suit the lines of her figure and not according to the styles of the day. Her clothes look part of herself.

ORIGIN OF HIGH HEELS.—Many years ago the Venetian ladies wore a ridiculously high heel, accompanied with a high clog of white leather, stamped with a gauffering iron and slashed, but closed at the point. It is said that this style was invented so that the ladies would prefer to stay at home. Some shoes were made so high that a grand lady on her visiting tour would have to be supported by a waiting-maid on either side.

SHOES AT A CENT A PAIR.—A retail shoe dealer of Indianapolis advertised in an evening paper to sell shoes the next day at a cent a pair. He sorted out a large number of mismated, damaged and other shoes and rubbers for the sale. A crowd of several thousand people gathered, the police interfered, drove them away and arrested the proprietor.

A Philanthropic Californian.

California can boast of many enterprising and intelligent women, as well as men. It is a well-known fact that not a few of her women have established and successfully managed some of our foremost institutions. They have built up reputations in literature, law, medicine, and the arts and sciences, and are fast crowding upon other occupations heretofore held by the sterner sex. Find a well-established and prosperous place of learning and you will discover that a woman has a hand in its management, and further investigation will show that it is through the untiring work of women that the hospitals, the kindergartens and the charitable institutions and churches are kept going. Prominent among this band of workers for the good of her neighbors is Mrs. Annie K. Bidwell, of Chico, wife of General John Bidwell. She was born in Meadville, Pennsylvania, June 30, 1839. She was raised in Washington, D. C. She was married in 1868. When Mrs. Bidwell came to California, a feeble effort was making for the instruction of the Digger Indians on Rancho Chico. She came to the rescue in 1875, and determined to take full charge of the Indians. From day to day she assembled them in a small room and began the task of teaching them to read and write. Mrs. Bidwell had texts of Scripture painted upon canvas, and these were tacked around the schoolroom. They were used for the double purpose of instructing the Indians in religion and teaching them their letters and to spell and read.

She also taught them in the arts of civilization. She would cut out and fit garments and teach them to make them. Men came in search of learning as well as women and children. On each "lesson day" the exercises would be opened with singing and repeating the Lord's prayer in concert. She also taught them simple prayers embodying their wants. Mrs. Bidwell almost daily visits the Indians in their cabins at the rancherie. In 1882 she had a small chapel built for them on the ranch, and in December of that year it was dedicated by Rev. E. Graham, of the Presbyterian church. Mrs. Bidwell goes there daily except Saturday and teaches from 8:30 to 11:30 A. M. Services are held every Sunday forenoon. Of naturally a timid disposition, it required great moral courage to assume the role of a preacher, for her service was a real service and her religious instruction was a real sermon. Nothing but an overwhelming sense of duty could ever have impelled her to or sustained her in it. She has convinced the Indians that she is their friend, and they worship her. They go to her with their every want, and in the childish simplicity of their untutored natures they take to her even their little family troubles. Perhaps no one on the American continent has so completely captured the confidence of the red men of the forest. The Indians have taken such great interest in their studies that at last Mrs. Bidwell has secured the co-operation of the Presbyterian Board of Women's Foreign Missions, and they have made an appropriation for the employment of a teacher. During a recent visit of a *Bee* representative to the Bidwell ranch, he learned that a new site had been selected for the erection of a larger chapel and school building.

Mrs. Bidwell officiates at all the Indian funerals and buries their dead, and sometimes when she has offered her simple prayer and given the order to fill the grave, the relatives will, with streaming eyes, beg her to offer one more prayer. She has got the men to a most advanced state of civilization, for they have cultivated a liking for music and organized a brass band, the musicians having given a number of public concerts.

And yet Mrs. Bidwell has not devoted her whole time to the Indians. She has been active among her own people, and has done great good. She was one of the organizers of the local Women's Christian Temperance Union, and was for years at its head, taking a leading position at home and attending important sessions abroad. She has also been an energetic worker in the Ladies' Relief Society. There is scarcely a day that she does not drive around among the poor people of the community to learn their needs and to assist them, and she is lavish with her donations of food, wood and clothing. Mrs. Bidwell lives only to do good, and yet she goes about her deeds of kindness in a quiet way.

A PAPER CHIMNEY.—A large factory of Breslau, Germany, required a chimney 54 feet in hight. Instead of constructing the chimney with bricks, as usual, a large number of solid blocks of paper firmly compressed were made use of. These blocks were placed carefully one on the top of the other and joined together with a special cement. The chimney is non-inflammable, is very elastic, and is by the nature of the material quite secure from lightning, which so often plays such sad havoc with the more ordinary sort of factory chimney.

ADVERTISE.—This word is traced back to the early part of the fifteenth century; but in those times it was used in the sense of advert as well as in that of inform. In the seventeenth and eighteenth centuries it was uniformly pronounced with the accent on the middle syllable, advertise; subsequently, advertise became universal; the present tendency, says Dr. Murray (in commercial usage, at least) is to say *advertise*, apparently after the verbs in ize.

YOUNG FOLKS' COLUMN.

Song of the Meadow Lark.

[Written for the RURAL PRESS by NAOMI CLAYTON.]

Oh, come and see
The feast so free
God in mercy sendeth!
My thanks I bring,
I sit and sing,
"Come and find where I am."

To deck the feast
To bird and beast,
Colors bright He blendeth.
The flowers gay—
With me, they say,
"Come and see where I am."

Though short my note,
From my yellow throat,
Praise I pour forever.
Songs rise and fall;
Thus say we all—
"Happy be where I am."

Immortal man!
Try if you can
From your vices sever.
For bird and flower
Ask every hour,
"Are you pure as I am?"

Livermore, Alameda Co.

A Letter to the Young People.

[Written for the RURAL PRESS by HUBERT C.]

I thought I would interest the young people by writing them a letter. I live in Poway, about 22 miles from San Diego. I have two brothers, Clifford and Howard. Howard is the youngest and I am the eldest. Our valley is a very pretty one. Flowers, trees and grass grow on the hillsides. Along the creek large sycamores grow. There are hawks and buzzards' nests in some of them. We have a store, a hotel, two churches, the Methodist and Baptist, etc. There are many other things I would like to tell about, but I haven't time.

Poway, Cal.

What a Boy Did.

What boys have done, boys can do. There are many instances recorded where both boys and girls have done notable deeds when emergencies have arisen which call for them. The latest account of this kind which comes to our notice is the following from a Western New York newspaper:

There is a farmer boy over in the town of Phelps who is, indeed, a model of industry, and is bound to make a sterling citizen. He is 17 years of age. His father died two years ago, leaving a wife and four children, and a mortgage of $1800 on the farm. The boy was the oldest of the children, and the funeral was scarcely past before he set resolutely to work to help the family out of their financial embarrassment. With the advice of a kindly neighbor, he has since been the sole manager of the farm of over 90 acres. He has, with only a little assistance, plowed the fields, sowed, cultivated and reaped; he has had sole charge of a large number of cattle and horses on the farm; he has managed a retail milk business, and has himself marketed all the farm products. Last summer he found time, after his work in the fields, to paint the house twice over and to build five new fences. In the winter he not only attends to the necessary work about the farm, but teaches a country school three miles away, fells timber in the woods on Saturdays, writes excellent letters to the local newspapers, and pursues the course of reading as laid down in the *Chautauquan*. The farm is not only out of debt and in splendid condition, but the lad and his mother have enough money on hand to buy 20 more acres of land this season.

A Smart Girl.

Some one in Texas who signs himself "Bill Amnock" writes to the *Housekeeper:* I must tell you of our Lena. She is a child of 12 years; born in Georgia, of Swedish parents. Her mother has been a domestic in our family for 15 years. Lena gets up every morning at five, feeds the chickens, builds the fires and goes to the stable. Our horse, Nellie, a full-blooded Mexican mustang pony, is handled as well by her as myself. She feeds and waters her, then takes the pitchfork and cleans the stable; will take the brushes and rub Nellie while she is eating—singing and talking to her all the while. Nellie seems to enjoy her company. Once while at dinner she overheard us say we would drive Nellie directly after dinner, and wishing to please us, quietly went to the stable, put the harness on, and not being able to reach her head, climbed on a box and succeeded in placing the bridle, after which Nellie was backed into the shafts and hitched as well as any one could have done it. Lena thinks of more mischief in one hour than any three girls in Texas. One time a large basket of partially decayed fruit was left in her reach, when she ate two oranges, eight apples, several bunches of grapes and topped off with some watermelon rind. That night we stood around poor Lena's bed with hot water whisky, peppermint, salts, liniment, mustard plasters, etc.; but to our surprise she was with Nellie in the morning as usual. Any girl who can stand such food and take care of a horse and never say die, will survive the Dengue fever, smallpox and cholera.

GOOD HEALTH.

TASTE AND SMELL—TWO SENSES, EACH USELESS WITHOUT THE OTHER.—Scientific men inform us that we can distinguish only some six varieties of substances by taste. These are the bitter, sour, sweet, saline, alkaline and metallic. Others enumerate simply the sweets and bitters, acids and salines as the four varieties of savors we are able to distinguish. The rapidity with which different substances may be perceived and appreciated by the sense of taste varies greatly. For example, salt ranks highest on the list. It can be tasted in 0.17 of a second after its application. Quinine, with a much more persistent flavor, requires but 0.258 of a second for its appreciation by taste. Bitters do not rank highly in the matter of food appreciation. Sours and sweets come certainly within the range of taste. We have acquired a habit of referring every sensation about the mouth to taste, whereas, in reality, it is argued by the London *News*, smell has more to do with the matter than is really believed. Even in the case of sweets and sours, it can hardly be denied that these are to be distinguished more by a combination of smell, taste and touch than by taste alone. Again, we discriminate degrees of sourness by smell in a ready fashion, and such degrees may be tested and distinguished by the more delicate smell when taste lags woefully behind in the work of discrimination. Perchance it is the pure sweet savor that taste has the right to assume as its special province. Yet "lengthened sweetness long drawn out" will soon weary the palate unless it is linked to some other flavor in the distinction of which smell may play a part. Children will weary of plain sugar, while the flavored candy attracts them more powerfully; and this is a proof of the argument that it is to smell and to its aid in tasting that the higher sense of gratification is due.

HOW TO PREVENT THE SPREAD OF SMALLPOX.—Although there is no contagion more powerful or certain, experience has taught that the spread of smallpox may be absolutely prevented by a strict observance of rules prepared for the protection of infected districts. On the first report of the existence of a case, systematic vaccination or revaccination of every person exposed should be at once resorted to. Whenever it is known that any person is sick with smallpox or varioloid, isolation of the individual should be promptly and rigidly enforced. Any accumulation of filth or refuse of any kind about our premises should be at once removed, and disinfectants freely used. A strong solution of copperas (sulphate of iron), alum—in the proportion of two or three pounds to a gallon of water, or combined with carbolic acid made by mixing eight pounds of dry copperas and a pint of carbolic acid in five gallons of water, and stirring the mixture briskly until dissolved, is good to disinfect all kinds of drains and foul places in houses, stables and yards.—*Ventura Free Press.*

THE SNEEZING SPOT ON OUR HEADS.—As a *Journal* representative sat in the chair of a Maiden-lane barber the other day, the genial artist of the brush observed that the journalist sneezed when his hair was combed. "Did I touch the sneezing spot?" inquired the barber. He then proceeded to explain that the "sneezing spot" was a sensitive place to the left of the middle of the forehead. "Why," said he, "there are men who come in here who sneeze regularly every time I comb their hair or shave them just as soon as the comb passes over that spot. I had a man in here yesterday who sneezed three times just as hard as he could, all because I touched the 'sneezing spot.' It must be a very small nerve that tickles the nostril."—*Albany Journal.*

ONE FATAL DRINK OF WATER.—In the *British Medical Journal* is reported the case of a family which was stricken with typhoid fever, after drinking *once* of water from a contaminated well. They had rented a house at a fashionable resort, and were then warned that the water was dangerous. Accordingly, no member of the family used the water until the last day of their stay, when, the artificial water they had been using being exhausted, the wife said: "For once, surely, there can be no harm in drinking the well-water." Out of nine persons who partook of it, six died, and, on examination, it was found to contain the bacilli which cause typhoid fever.

TO DESTROY SENSITIVENESS.—According to Dr. Brown-Sequard, one has only to harden the neck and feet and destroy their sensitiveness to prevent taking cold. This is done by daily blowing a stream of cool air, by means of an elastic bag, upon the neck, and by immersing the feet in cool water. The air is at first only slightly cool, but is each day made colder, until the neck can stand an arctic blast with impunity. The feet are immersed in water which is at first at a temperature of about 90 degrees Fahrenheit, and this is gradually reduced to 30 degrees Fahrenheit.

DOMESTIC ECONOMY.

BAKED EGGS.—Put a tablespoonful of butter in a pieplate, and set in the oven until it melts and begins to smoke. Take it to the table and break six eggs one by one into a cup, pouring each in turn into the melted butter carefully. Sprinkle with pepper and salt, put a tiny bit of butter on each and set in the oven to bake until the eggs are "set," that is, when the whites are firm and yolks skimmed over, but not hard. Four minutes in a quick oven should do this. Send to table at once. If you have a few spoonfuls of nice chicken gravy you can strain and use it instead of butter.

POTATOES A LA ROYAL.—One pint of hot, boiled potatoes, a generous half-cup of cream or milk, two tablespoonfuls of butter, the whites of four eggs and the yolk of one, salt and pepper to taste. Beat the potato very light and fine. Add the seasoning, milk and butter, and lastly the whites of the eggs beaten to a stiff froth. Turn into a buttered escalop dish. Smooth with a knife and brush over with the yolk of the egg, which has been well beaten. Brown quickly and serve. It will take 10 minutes to brown. The dish in which it is baked should hold a little more than a quart.

HINTS ABOUT POTATOES.—Old potatoes, such as one sometimes has in the months of April or May, can be rendered less watery by a very simple process. When about to dish them, take one at a time in a coarse towel, and squeeze it as hard as possible. Then lay it carefully in the dish. New potatoes should always be boiled in hot water, and with the skins on. These may be removed at the moment of dishing; sprinkle on salt as you lay them in the dish. Some persons scrape the skins off before boiling, but on no account should they be peeled.

COOKING SMELTS.—Soak smelts in warm water for 15 minutes, then scrape then. Remove the long dark vein that runs through the body, by gently pulling off the head, first loosening it slightly with a knife. After this, rinse them, and lay them in a cloth to dry. Then roll each in a plate of cornmeal. Fry them delicately in deep lard (or enough to half cover them) boiling hot when they are put in, and kept so till the fish are brown. Sprinkle them with salt when you dish them; if put on when you begin to cook them, they will not brown.

BOILED COD.—A codfish is so much thicker at one end than the other that it is impossible to have all parts evenly cooked in boiling. So it is a good plan to cut the fish in half, boiling the head and shoulders (the thickest part) for dinner, reserving the thin end to broil for breakfast the next day. It will keep if sprinkled thickly with salt on the inside.

POTATO PUDDING.—One pound of potatoes (after they are boiled and strained), peel before boiling; one pound white sugar, three-fourths pound of butter, six eggs, yolks and whites beaten separately; the whites must be stiff enough to stand alone. Flavor with vanilla. Bake in a crust without a top. If it browns too rapidly in baking, cover with a greased paper.

BAKED INDIAN PUDDING.—Stir boiling water thick with cornmeal, cook a few minutes, take from the stove and stir in sweet milk until it is thin like gruel, salt and sweeten to taste. For a two-quart basin full, three eggs well beaten and one-half a nutmeg, piece of butter size of egg. Bake one hour in a slow oven. This is an old-fashioned pudding, but very nice indeed.

JELLIED ORANGES.—Cut a small round piece from the blossom end of each of six or eight oranges, and scoop out the pulp very carefully, so as not to widen the hole, or tear the inside of the fruit. Use your fingers and a small teaspoon for this purpose until the oranges are empty and clean.

ASSOCIATION CAKE.—Two cupfuls of sugar, one and a half cupfuls of butter, four eggs, one cupful molasses, one cupful of milk, five cupfuls of flour, one pound of currants, one teaspoonful of soda, one-half pound of citron, one ounce of mace, one teaspoonful of cloves and cassia, mixed.

TO WASH POULTRY.—Fill the inside with cold water, holding it over a pan. Keeping the hands over the openings, shake hard. Rinse it in this way in several waters. In next to the last it is well to dissolve one teaspoonful of soda, if there is any sourness.

BEATING CAKE.—Beat from the bottom of the mixing bowl with a wooden spoon, bringing it up full and high with each stroke, and as soon as the ingredients are fairly and smoothly mixed, stop beating, or your cake will be tough.

COFFEE BLANC MANGE.—Soak the gelatine in a cupful of strong, clear black coffee, instead of cold water, and proceed as with plain blancmange, using no other flavoring than the coffee.

COOKIES.—One cup of butter, two cups of sugar, three eggs, two teaspoonfuls each of baking powder and boiling water, and flour enough to knead as soft as can be rolled out.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, March 26, 1887.

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The Week.

The week has included several really summery days and the advance of vegetation has been wonderful. Early fruit trees are clad with bloom in many parts of the State, and in the earliest regions some fruit has set and apparently started well on its way. There yet remains, however, a little margin of danger, as the frost season is still on. The 10th of April generally brings safety in some parts, while in others, of course, the dangerous season reaches considerably later in the year. So far all accounts favor good orchard crops, and the growth of grass and grain is all that could be asked and the growth of weeds all that could be deplored. At the close of last week there were showers over a considerable area of the State. Weather prophets predict quite a liberal downfall in April. It will not take much to carry the grain and hay yields to large figures.

The incoming of visitors and home-makers still continues. The activity of California real estate, as shown by telegraphed sales from various points, is something phenomenal. It might be well to inform all Eastern friends to come soon if they hope to get a small piece of California. Laborers, who wish to work, seem to be fully employed, and complaints from the unemployed, this winter, seem to be conspicuous by their absence. Everybody is busy, everybody is happy and hopeful. It is fun to live at such a time and in such a place.

Country Milk.

In the issue which has arisen in this city between country and city milk, our convictions and sympathies are naturally very strong in favor of country milk. The field is the place for a cow; the rich, succulent growth of the pasture is naturally her chief pabulum. Freedom of movement, abundance of fresh air and the fragrant cleanliness of the field, are factors in her health. The very fitness of things calls for fresh milk in bright, clean cans, transported in the speediest manner from the beautiful country to be set forth in crystal pitchers upon the breakfast-tables of the city. But it may be said these considerations are mainly sentimental.

We believe, in this contest between country and city milk, that the whole interest and sympathy of city consumers should be with the country producers. These country dairymen have given years of time and the greater part of their earnings to the improvement of their pastures, the improvement of their stock, the improvement of their buildings. They have spared neither time nor expense to secure the most nutritious and wholesome food for their cattle, and the best means of caring for their milk so that it will reach the consumer in the best possible condition. All this they have done because they are devoted to their business and discern that the way to achieve success is to merit it. But it may be said, these people are your friends and your advocacy of their claims is therefore self-interest.

We do not suppose that many purchasers of city milk are readers of the RURAL PRESS. We have many readers in the city, but they are people who have country interests, or hope to have, and they cannot easily be deceived by poor milk. Still the subject is one of the highest and deepest importance, and we desire to have our opinion in the matter put plainly upon record.

In the first place we wish to state our conviction that there are well-kept cows within the limits of San Francisco, and that they produce wholesome milk. With these, of course, we have nothing to do. It is rather with the hosts of swill-milk concerns, in which many cows are kept confined in narrow area, polluting the air by their accumulating and fermenting excrements, drinking water from foul holes or troughs, huddled together in reeking sheds, breathing poison in the putrid air and excreting it with their milk. It is of milk drawn from such filthy and diseased kine and allowed to stand in such pestiferous sheds to absorb fresh doses of poison, until the cans are filled for the wagon. It is of pails and cans rinsed out in foul water which poisons instead of purifies, and with the accumulated filth of months festering in the seams of the vessels. It is of such pails and cans set out on manure-piles so as to be, forsooth, purified in the sunshine—the sunheat, but contributing to faster decomposition and pollution. Such things as these were discovered by a gentleman of this city who was advised by a friend to examine the dairy which supplied him milk which he bought as specially good for his baby.

It was hoped, inasmuch as the City Board of Health seemed disposed to take hold of the question of the city's milk supply, that something effectual could be done. The Board was not altogether fortunate in its methods, and did not seem sincere in its treatment of the matter afterward. It was shown, however, that tuberculosis did exist among the city dairies, and that point should be enlarged upon for what it is worth. People generally do not know how direct and dangerous is the menace to human life from the use of milk or meat from tuberculous animals. There is plenty of literature bearing upon this subject, for the facts have been fully demonstrated. At an agricultural conference of the region about d'Agen, held under the auspices of the Agricultural Societies of Lot and Garonne, in d'Agen, May 19 to 22, 1886, an address on the subject of "Tuberculosis" was made by Prof. Peuch, of the Veterinary school at Toulouse. The speaker at first proceeds at length to describe the disease and its pathology. The conclusions of the address relate to the communication of the disease to other animals and to the human species, and from this part we desire to present a translation of a few paragraphs:

The bronchial mucus, analogous to the sputa of tuberculous persons, is ejected from the nostrils of diseased animals, and falls upon the forage or into the water and contaminates them. It is in this way that animals confined in the same stable or the same pasture, drinking from the same sources or receptacles, become tuberculous. Thus, little by little, insidiously the microbe proceeds on its destructive work and at last produces the formidable lesions in the lungs, which I have described as characteristic in advanced cases, and which swarm with those microbes, which are the essential agents of the contagion.

The diseased material of the lungs or liver of tuberculous animals may communicate the disease to swine which are fed upon them. The marks of the disease thus intentionally produced in a hog are identical with those in hogs having contracted the disease naturally, and the lesions in their organs are the same as those found in the lung of a tuberculous ox.

The danger to mankind from the eating of tuberculous pork is also imminent. This disease is, however, reduced by cooking the meat. In experiments with the juice of meat heated 45° to 80° Centigrade, not one case of disease was produced; but cooking must be thoroughly done, for sometimes the interior of a piece of meat is not heated enough to kill the microbe in the ordinary process of cooking.

There is another means of communicating the disease that I ought to signalize, and that is the use of milk from tuberculous cows. This liquid can transmit the disease as well as the blood of meat, but when boiled, the contagious properties are destroyed as they are in meat when well cooked. Thus the transmission depends much upon our method of preparing food, but owing to people's taste and fashion in cookery, it is impossible to require that all milk be boiled, or all meats thoroughly cooked; hence it is necessary to inspect carefully all meat from slaughter-houses in order to do away with the eating of meat from animals in which tuberculosis is to a degree advanced, and in condemned animals the tuberculous organs, which are the seat of the disease, and the adjacent ganglia, should be destroyed.

It is equally necessary that the dairies should be subject to sanitary inspection. The chances of contagion would be diminished if the numbers of tuberculous animals can be reduced. In this connection I must remark that tuberculosis is contagious in animals as in man, hence a breeder should select with care healthy parentage.

Fortunately, the evolution of the disease is considerably influenced by the surroundings in which the animals live; that is to say, the hygienic conditions in which they are placed. Thus, when animals carry in themselves the tuberculous germ, or even when this germ or tuberculous microbe which penetrates their organs, perhaps by the air which they breathe, or, above all, by the food that they eat, this microbe may in some way remain latent in the organism, when it is not able to overcome the resistance which is in the tissues when the animals are put to moderate work, and if they are well nourished and kept in well-aired stables. On the other hand, if the animals are overworked or ill fed, or if weakened by being milked too long or frequently without sufficient food, then the tuberculous germ multiplies and invades their organs and destroys them. Thus the hygienic conditions and good care are of the greatest importance in preserving the health even of those subjected to the contagion.

In this calm statement of the dangers of using milk from cows suffering from consumption, one can clearly see the peril in which milk-buyers are placed when they use milk from ill-kept dairies. It is also shown under what conditions the disease is promoted. There are many dairies in this city which fully answer the needs for dissemination of tuberculosis. No spasmodic investigation will cure the evil. There must be constant inspection to the end that dairies be well kept. Not till this is done will one be safe in buying city milk without seeing for himself whence it comes.

Silk Culture.

The State Board of Silk Culture held its monthly meeting at 21 Montgomery avenue, S. F., March 19th. Present—Messrs. Carter, McDonald, Sellers and Trumbull, and the Secretary, Mrs. Rienzi.

A shipment of 50 ounces (about 200,000) silkworm eggs, now on the way hither from Italy and France, is expected about the end of this month and will be distributed to the numerous applicants free of charge, according to the order in which their requests were received. These eggs, which were raised by the cellular system, have been microscopically examined and certified pure. They will, it is said, produce white cocoons.

There are still a few cuttings of the white mulberry on hand, although they have been in great demand.

Two new reeling machines have been ordered, at $150 each, for the use of the reeling school, and last year's experiment of raising cocoons at the filature will be repeated.

The Cogswell Polytechnic College.

It gratifies and cheers us, from time to time, to find men of wealth, who deem themselves put in trust with their property for noble purposes. To the list of those who dedicate their abundant means to humane uses during their lifetime—the list on which the names of Peter Cooper and George Peabody have long been eminent, and where that of Leland Stanford has lately gained an honored place—is now to be added that of Henry D. Cogswell.

During the past week, Dr. Cogswell (who is already somewhat widely known as the donor of public drinking fountains to several cities) has founded an institution for educational beneficence. Desiring to put his ample fortune to some use which shall greatly bless mankind, and with this object in view, he has been for months consulting with other philanthropists and with leading educators. The result is that on Saturday last he deeded large realties, roundly valued at over $1,000,000, to a Board of Trustees, for the purpose of establishing and maintaining in the city of San Francisco a polytechnical college, which shall enable Californian boys and girls over the age of 14 years to acquire a practical training in the various industries by which it is possible to make an honorable and comfortable living.

In addressing the assembly of friends called to witness the transfer, Dr. Cogswell said:

"The education that does not prepare one to intelligently direct his labor is not worthy of consideration. We are sorry to say but little effort is made in our present system to prepare children to use their knowledge in assisting them to gain a livelihood. Most of our boys and girls have no occupation and are not fit for one when they leave school. They have learning, but no capacity. The time has come when this should be changed. The nineteenth century calls for the training of the eye and the hand, and stamps it as just as important as the study of grammar, geography, and arithmetic. Educated working men and women are necessary to solve the great labor problems that will arise in the future. For the purpose of this education there is room and need for technical schools in all quarters of our country. Mental industry can exist only along with physical industry; hence the true school should give both mental and physical culture. For the purpose, then, of providing the boys and girls of the State with a thorough training in mechanical arts and other industries, we have made the grant, as set forth in these papers, providing for the founding and maintaining of the Cogswell Polytechnical college. I present them to you, believing that you will faithfully execute your trust to the best of your ability."

The trustees named in the trust-deeds are Moses Hopkins, Charles B. Stone, H. D. Cogswell, Caroline E. Cogswell, Mrs. E. M. Arnold, James G. Kennedy and Thomas B. Bishop. The deeds contain a condition that the trustees establish and maintain the school according to the idea of the donor, and provide that they shall not sell nor mortgage the property, but shall support the college from the revenues derived therefrom. Dr. Cogswell also proposes to give the trustees $60,000 in cash, wherewith to commence operations and erect suitable buildings.

The trustees, all of whom were present, accepted the trust, and pledged themselves to carry out its provisions.

On Monday the trustees elected Dr. Cogswell president, Mrs. Arnold secretary, and Mr. Stone treasurer, and appointed a Committee on By-laws.

Chas. Geddes, the chosen architect, is already at work upon the plans of the buildings, which will be at Twenty-sixth and Folsom streets. We refrain from giving further details to-day as to the elaborate structures and courses of study proposed; and will merely add that the trustees hope to have the school actually open by January 1, 1888, with accommodations for 200 pupils at the outset.

THERE is little mention made of smallpox since the State Board of Health provided for quarantining the Mexican border, and the alarm seems to have subsided.

Osier Willow.

As we have already stated in the RURAL, there is a certain amount of basket willow grown in this State and sold to the San Francisco basket-makers. We are not aware how large an amount the local market would stand, but probably considerable more than is now grown, and as our population is now increasing rapidly, the demand for willow-ware may be expected to increase, and basket-weaving establishments may be opened at various centers of population and trade. There is certainly quite a large amount of imported basket and other willow goods which should be supplanted by local manufacture.

The growth of osier willow is an industry which it would seem might be profitably undertaken by those who have families disposed to help at light work and thus help toward the general income. The cutting and peeling of willow is nice, clean, easy work, and does not require the amount of skill and close attention demanded by some other industries which are proposed for the household. The willows do not suffer from mites or disease; they do not have to be fed or sheltered, and the peeling may be done during storms when out-door work is impossible. These points are not new; we have mentioned them before. They are especially called to mind at this time by an account which we see in the *Southern Planter* from a correspondent who visited the basket-willow district of Western New York in January last. We quote as follows:

In January, while attending the New York State Cidermakers' Convention, at Syracuse, I had an opportunity to learn more about the osier, and rode out to Liverpool, only three miles distant from Syracuse. Every evidence of thrift and prosperity abounded. Great piles of green willows in bundles were lying on the roadside and in dooryards, cut before snowfall for winter work.

It is because of new processes for peeling the bark that winter is now made the active season for basket-making. A full load—say, one ton—is lifted off the wagon by a crane, and the rack containing the willow is lowered into a steam box, and in a very short time it is steamed sufficiently to peel readily. The peeling is done still by hand, but very rapidly. Once steamed, they will slip their bark any time, if not permitted to dry. Eighteen dollars per ton was paid by the basket-makers for green willows just cut, in the fall, and at that rate the crop pays very finely, for as high as ten tons per acre has been produced. A friend engaged in the business there, and who is well acquainted with Virginia, having visited us here and seen our osiers, says that we have rare advantages here, because we can cut all winter long, as we need the willows for work. He also says that great numbers of the German immigrants are basket makers, and that there will be no difficulty in getting as many as we want, when we have the willows.

The demand for willow-ware of all kinds is great, and it never ceases. A year ago extracts from the Georgia papers were freely published, giving most glowing accounts of the success of Mr. I. C. Plant, of Macon, Ga., and it was stated that he derived large profit from the bark of his osiers, used for the preparation of a valuable drug. Having supplied Mr. Plant four years ago, I wrote to him regarding the latter part of the story. His reply was that there would be profitable use for the bark whenever enough could be supplied and parties were ready to put up the machinery to use it, whenever they could be assured of 25 tons of bark.

The same advantage which is described as pertaining to Virginia must rule in California, where the willows may be cut as desired at any time in the winter. Of course the steaming need not be done on such a large scale as described, but a small steam box a foot square and eight or ten feet long can be made, and a small boiler rigged up to supply it with steam. How to do this can be learned by a visit to any local wagon-shop, where they have arrangements for steaming wood before bending. At a shop in which the writer worked, in Western New York, some years ago, the willow-growers brought their willow and had it steamed for a nominal price, and then drew it home again for peeling—keeping it from drying, and then it could be peeled at leisure. Of course it would be better to rig up a steamer at home, and any ingenious man can do that at small expense.

The preparation from willow bark, alluded to by the writer we have quoted above, is of course also possible here, if attention is given to develop it. Willow bark yields salicine, used to adulterate quinine, which is not very desirable, as our friends who need this drug should have it pure.

Osier willows are growing in different parts of the State. The largest plantation we have seen is on the Buhach ranch, near Atwater, Merced county, where the willows are planted along the irrigation ditches. Willows, of course, serve many purposes in farm economy; they may be used for tying vines, for thatching levee or ditch banks, and for many other uses. There should evidently be more of them grown in this State.



THE CLOTHILDE FAMILY OF HOLSTEIN-FRIESIAN CATTLE.

Immigration and the Labor Problem.

Reliable statistics inform us that from 1820 to 1885 over 13,000,000 of foreign-born persons reached the United States as immigrants. The lowest figure of any one year was 6354, in 1853; the highest was 788,992, in 1882.

Comparing the yearly arrivals, it is found that the greater number of arrivals invariably preceded the years of our greatest depression in business. The inference, very naturally, is that these excessive foreign accessions to our population have formed an important factor in our periods of business depression.

It is apparent to the most casual observer that the great bulk of the immigration concentrates in cities and towns which are recognized as leading industrial centers, and more especially in centers of mechanical industries. Comparatively few immigrants enter upon agricultural pursuits. The unskilled immigrants resort mainly to commercial cities, where there is a large demand for unskilled labor; the skilled immigrants gravitate to the mechanical shops wherever they may be found. The following figures, giving the number of foreign born persons, 10 years of age and over, who were engaged in agriculture, manufactories, etc., as per census of 1870 and 1880, furnish abundant proof of the above:

	1870.	1880.
Population 10 years of age and over	28,228,945	36,761,607
Foreign born 10 years of age and over	5,307,887	6,491,301
Foreign born engaged in agriculture	619,108	812,829
Foreign born engaged in manufactures and mining	929,581	1,225,787
Total foreign born engaged in agriculture, manufactures, etc.	1,548,689	2,038,616

A careful examination of these figures shows that our foreign-born population constituted but a fraction over 10 per cent of those engaged in agriculture, while the foreign element engaged in manufacturing, mechanical and mining industries represents 32 per cent of all persons so employed.

These are important facts for the consideration of our political economists. The trouble does not arise so much from the fact of a large immigration as from the manner in which that immigration is distributed; although another class of figures might be given, and, in fact, were given, in these columns some months ago, which tend to show that unpleasant complications may arise in the near future which, very likely, may call for some restrictive legislation in regard to immigration. Still, such legislation would be attended with difficulty, and would set at naught one of the cardinal principles upon which this Government was originally organized. It is doubtful if the people of this country will ever submit to fence in their territory with a Chinese wall, except it be to fence out people like the Chinese themselves who can never assimilate with our people or their institutions—civil, religious or social. A large portion of the very best blood in this country entered into American life by a voyage across the Atlantic. Notwithstanding the many difficulties in the way of keeping this country perpetually open, as a harbor of refuge and protection to the oppressed and suffering of all nations, we must devise some means to receive and distribute those who come to us in a way by which both the comer and the resident shall be mutually benefited. We cannot conclude this brief article better than by quoting the words of a cotemporary, as follows:

Addition to population rightly distributed and in proportion to its possibilities is the soul and sinew of our development. It has made us what we are in the sovereignty of a continent and in the nations of the world. To disrate the immigrant is to desecrate our fathers' graves and to insult the verdict of our history. The whole evil consequent to foreign immigration lies in its one-sided direction and its overgrown proportions, and the task of statesmanship is in the way of curtailing its magnitudes without profaning its rights. To encourage what is desirable of population in its kind and quantity is, and will be for years to come, a national duty and a reserve source of strength and progress, while a blind and indiscriminate permit of immigration will just as surely end in catastrophe and industrial calamity.

The Clothilde Family.

We are seldom able to favor our readers with so beautiful a picture of so celebrated a family of cattle. If royalty be a condition of superiority through merit, this family could most certainly be classed as royal, for as individuals and as a family they have by their records attained a position of prominence heretofore unknown in the dairy world.

Clothilde, the queen and mother of this family, gained for herself and her family distinction by producing 26,021 lbs. 2 ozs. of milk in one year, as a six-year old, and, not satisfied with this enormous yield, kept on giving milk until the record in 15 months and 13 days was increased to 30,590 lbs. 9 ozs. Her daughter, Clothilde 2d, strove hard to equal the mother and only fell short a little, her record being 23,602 lbs. 10 ozs. of milk in a year, as a four-year old, which places her at the head of all animals of her age. Another daughter, Clothilde 4th, although but two years old, nobly sustains the reputation of the family and breed by giving 14,021 lbs. 14 ozs. of milk in a year, and the trio—mother and two daughters—at an average age of 4 years, average 21,215 lbs. 3 ozs. each for a year, which record has never been approached by the same number of animals of one family. Clothilde 2d's Duchess, as a 2-year-old, gave 13,150 lbs. 9 ozs. in a year, a substantial proof "like begets like," that and that "breeding will tell." The butter-producers of these cows are of a high order, Clothilde having given 4 lbs. 13¼ ozs. of butter in two days, 21.28 lbs. of milk making 1 lb. of butter, which record is at the rate of 17 lbs. 3⅜ ozs. for a week. Clothilde 2d made 17 lbs. 12 ozs. of butter in a week. Clothilde 2d's Duchess made 12 lbs. of butter in a week, as a 2-year-old. These cows are seemingly in good company, as their owners, Messrs. Smiths, Powell & Lamb, of Syracuse, N. Y., state that their entire herd of mature cows the past season averaged 17,166 lbs. 1 oz. of milk each in a year. They also have 34 two-year-old heifers, which averaged 12,465 lbs. 7 ozs. of milk in a year, the entire number that finished their records during the year. Other records reported are as follows:

Twenty-five cows and heifers averaged 18,034 lbs. 9 9-25 ozs. of milk each in a year.

Nine cows and heifers averaged 20,231 lbs, 8 1-9 ozs. of milk each in a year.

Seventy-five cows and heifers averaged 17 lbs. each of butter in a week.

Thirty-seven cows and heifers averaged 20 lbs, 1 6-7 ozs, of butter each in a week.

Twelve cows and heifers averaged 23 lbs. 1-6 oz. of butter each in a week.

Sixteen three-year-old heifers averaged 16 lbs. of butter each in a week.

Twenty two-year-old heifers averaged 12 pounds 3½ ozs. of butter each in a week.

Such records should have interest to every person interested in dairy cattle, and especially so to any one intending to invest with the view of getting profitable returns from the butter and milk production of the cattle. This firm issue a catalogue giving records and pedigrees of their stock, which they mail to parties interested in Holstein-Friesian or other milch cattle on application.

A BOTANICAL phenomenon in which the people of Leominster, England, take pride is a pair of trees—an oak and an ash—which appear to have but a single trunk. They grow together for about four feet and then divide.

THE IRRIGATOR.

Wright's Irrigation Bill.

The importance of the bill concerning irrigation, introduced by Hon. C. C. Wright, and passed at the last session of the Legislature, seems to require us to give the full text of the measure, which we do below:

An Act to Provide for the Organization and Government of Irrigation Districts, and to Provide for the Acquisition of Water and Other Property, and for the Distribution of Water thereby for Irrigation Purposes. Approved March 7, 1887.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Whenever fifty or a majority of freeholders owning lands susceptible of one mode of irrigation from a common source, and by the same system of works, desire to provide for the irrigation of the same, they may propose the organization of an irrigation district under the provisions of this Act, and when so organized such district shall have the powers conferred or that may hereafter be conferred by law upon such irrigation districts.

SEC. 2. A petition shall first be presented to the Board of Supervisors of the county in which the lands or the greatest portion thereof is situated, signed by the required number of freeholders of such proposed district, which petition shall set forth and particularly describe the proposed boundaries of such district, and shall pray that the same may be organized under the provisions of this Act. The petitioners must accompany the petition with a good and sufficient bond, to be approved by the said Board of Supervisors, in double the amount of the probable cost of organizing such district, conditioned that the bondsmen will pay all said cost in case said organization shall not be effected. Such petition shall be presented at a regular meeting of the said Board, and shall be published for at least two weeks before the time at which the same is to be presented, in some newspaper printed and published in the county where said petition is presented, together with a notice stating the time of the meeting at which the same will be presented. When such petition is presented, the said Board of Supervisors shall hear the same, and may adjourn such hearing from time to time, not exceeding four weeks in all; and on the final hearing may make such changes in the proposed boundaries as they may find to be proper, and shall establish and define such boundaries; *provided*, that said Board shall not modify said boundaries so as to except from the operation of this Act any territory within the boundaries of the district proposed by said petitioners, which is susceptible of irrigation by the same system of works applicable to the other lands in such proposed district, nor shall any lands which will not, in the judgment of the said Board, be benefited by irrigation by said system be included within such district; *provided*, that any person whose lands are susceptible of irrigation from the same source shall, upon application of the owner to said Board, be entitled to have such lands included in said district. Said Board shall also make an order dividing said district into five divisions, as nearly equal in size as may be practicable, which shall be numbered, First, Second, Third, Fourth and Fifth, and one Director shall be elected from each district. Said Board of Supervisors shall then give notice of an election to be held in such proposed district, for the purpose of determining whether or not the same shall be organized under the provisions of this Act. Such notice shall describe boundaries so established, and shall designate a name for such proposed district, and said notice shall be published for at least three weeks prior to such election in a newspaper published within said county; and if any portion of such proposed district lie within another county or counties, then said notice shall be published in a newspaper published within each of said counties. Such notice shall require the electors to cast ballots which shall contain the words, "Irrigation District—Yes;" or, "Irrigation District—No," or words equivalent thereto; and also the names of persons to be voted for to fill the various elective offices hereinafter prescribed. No person shall be entitled to vote at any election held under the provisions of this Act unless he shall possess all the qualifications required of electors under the general election laws of this State.

SEC. 3. Such election shall be conducted in accordance with the general election laws of the State, provided that no particular form of ballot shall be required. The said Board of Supervisors shall meet on the second Monday next succeeding such election, and proceed to canvass the votes cast thereat; and if upon such canvass it appear that at least two-thirds of all the votes cast are "Irrigation District—Yes," the said Board shall, by an order entered on their minutes, declare such territory duly organized as an irrigation district, under the name and style theretofore designated, and shall declare the persons receiving, respectively, the highest number of votes for such several offices to be duly elected to such offices. Said Board shall cause a copy of such order, duly certified, to be immediately filed for record in the office of the County Recorder of each county in which any portion of such lands are situated, and must also immediately forward a copy thereof to the Clerk of the Board of Supervisors of each of the counties in which any portion of the district may lie; and no Board of Supervisors of any county, including any portion of such district, shall, after the date of the organization of such district, allow another district to be formed, including any of the lands in such district, without the consent of the Board of Directors thereof; and from and after the date of such filing, the organization of such district shall be complete, and the officers thereof shall be entitled to enter immediately upon the duties of their respective offices, upon qualifying in accordance with law, and shall hold such offices, respectively, until their successors are elected and qualified. For the purposes of the election above provided for, the said Board of Supervisors must establish a convenient number of election precincts in said proposed district, and define the boundaries thereof, which said precincts may thereafter be changed by the Board of Directors of such district.

SEC. 4. An election shall be held in such district on the first Wednesday in April, eighteen hundred and eighty-eight, and on the first Wednesday in April in each second year thereafter, at which an Assessor, a Collector, and a Treasurer and a Board of five Directors for the district shall be elected. The person receiving the highest number of votes for any office to be filled at such election, is elected thereto. Within ten days after receiving their certificates of election, hereinafter provided for, said officers shall take and subscribe the official oath and file the same in the office of the Board of Directors. The Assessor shall execute an official bond in the sum of ten thousand dollars, and the Collector an official bond in the sum of twenty thousand dollars, and the district Treasurer an official bond in the sum of fifty thousand dollars; each of said bonds to be approved by the Board of Directors; and each member of said Board of Directors shall execute an official bond in the sum of twenty five thousand dollars, which said bonds shall be approved by the Judge of the Superior Court of said county where such organization was effected, and shall be recorded in the office of the County Recorder thereof, and filed with the Secretary of said Board. All official bonds herein provided for shall be in the form prescribed by law for the official bonds of county officers.

SEC. 5. Fifteen days before any election held under this Act, subsequent to the organization of any district, the Secretary of the Board of Directors shall cause notices to be posted in three public places in each election precinct, of the time and place of holding the election, and shall also post a general notice of the same in the office of said Board, which shall be established and kept at some fixed place to be determined by said Board, specifying the polling places of each precinct. Prior to the time for posting the notices, the Board must appoint for each precinct, from the electors thereof, one Inspector and two Judges, who shall constitute a Board of Election for such precinct. If the Board fail to appoint a Board of Election, or the members appointed do not attend at the opening of the polls on the morning of election, the electors of the precinct present at that hour may appoint the Board, or supply the place of an absent member thereof. The Board of Directors must, in its order appointing the Board of Election, designate the house or place within the precinct where the election must be held.

SEC. 6. The Inspector is Chairman of the Election Board, and may:

First—Administer all oaths required in the progress of an election.

Second—Appoint Judges and Clerks if, during the progress of the election, any Judge or Clerk cease to act. Any member of the Board of Election, or any Clerk thereof, may administer and certify oaths required to be administered during the progress of an election. The Board of Election for each precinct must, before opening the polls, appoint two persons to act as Clerks of the election. Before opening the polls, each member of the Board and each Clerk must take and subscribe an oath to faithfully perform the duties imposed upon them by law. Any elector of the precinct may administer and certify such oath. The polls must be opened one hour after sunrise on the morning of the election, and be kept open until sunset, when the same must be closed. The provisions of the Political Code concerning the form of ballots to be used shall not apply to elections held under this Act.

SEC. 7. Voting may commence as soon as the polls are opened, and may be continued during all the time the polls remain opened, and shall be conducted as nearly as practicable in accordance with the provisions of chapter nine of title two of part three of the Political Code of this State. As soon as the polls are closed, the Judges shall open the ballot-box and commence counting the votes; and in no case shall the ballot-box be removed from the room in which the election is held until all the ballots have been counted. The counting of ballots shall in all cases be public. The ballots shall be taken out, one by one, by the Inspector or one of the Judges, who shall open them and read aloud the names of each person contained therein, and the office for which every such person is voted for. Each Clerk shall write down each office to be filled, and the name of each person voted for for such office, and shall keep the number of votes by tallies, as they are read aloud by the Inspector or Judge. The counting of votes shall be continued without adjournment until all have been counted.

SEC. 8. As soon as all the votes are read off and counted, a certificate shall be drawn up on each of the papers containing the poll list and tallies, or attached thereto, stating the number of votes each one voted for has received, and designating the office to fill which he was voted for, which number shall be written in figures and in words at full length. Each certificate shall be signed by the Clerk, Judge and the Inspector. One of said certificates, with the poll list and the tally paper to which it is attached, shall be retained by the Inspector and preserved by him at least six months. The ballots shall be strung upon a cord or thread by the Inspector, during the counting thereof, in the order in which they are entered upon the tally list by the Clerks; and said ballots, together with the other of said certificates, with the poll list and tally paper to which it is attached, shall be sealed by the Inspector in the presence of the Judges and Clerks, and indorsed "Election Returns of (naming the precinct) Precinct," and be directed to the Secretary of the Board of Directors, and shall be immediately delivered by the Inspector, or by some other safe and responsible carrier designated by said Inspector, to said Secretary, and the ballots shall be kept unopened for at least six months; and if any person be of the opinion that the vote of any precinct has not been correctly counted, he may appear on the day appointed for the Board of Directors to open and canvass the returns, and demand a recount of the vote of the precinct that is so claimed to have been incorrectly counted.

SEC. 9. No list, tally paper, or certificate returned from any election, shall be set aside or rejected for want of form, if it can be satisfactorily understood. The Board of Directors must meet at its usual place of meeting on the first Monday after each election to canvass the returns. If, at the time of meeting, the returns from each precinct in the district in which the polls were opened have been received, the Board of Directors must then and there proceed to canvass the returns, but if all the returns have not been received, the canvass must be postponed from day to day until all the returns have been received, or until six postponements have been had. The canvass must be made in public and by opening the returns and estimating the vote of the district for each person voted for, and declaring the result thereof.

SEC. 10. The Secretary of the Board of Directors must, as soon as the result is declared, enter in the records of such Board, a statement of such result, which statement must show:

First—The whole number of votes cast in the district.

Second—The names of the persons voted for.

Third—The office to fill which each person was voted for.

Fourth—The number of votes given in each precinct to each of such persons.

Fifth—The number of votes given in the district to each of such persons.

The Board of Directors must declare elected the person having the highest number of votes given for each office to be filled by the votes of the district. The Secretary must immediately make out and deliver to such person a certificate of election signed by him and authenticated with the seal of the Board. In case of a vacancy in the office of Assessor, Tax Collector, or Treasurer, the vacancy shall be filled by appointment by the Board of Directors. In case of a vacancy in the office of member of the Board of Directors, the vacancy shall be filled by appointment by the Board of Supervisors of the county where the office of such Board is situated. An officer appointed as above provided shall hold his office until the next regular election for said district, and until his successor is elected and qualified.

SEC. 11. On the first Wednesday in May next following their election the Board of Directors shall meet and organize as a Board, elect a President from their number, and appoint a Secretary. The Board shall have the power, and it shall be their duty, to manage and conduct the business and affairs of the district, make and execute all necessary contracts, employ and appoint such agents, officers, and employes as may be required, and prescribe their duties, establish equitable by-laws, rules, and regulations for the distribution and use of water among the owners of said lands, and generally to perform all such acts as shall be necessary to fully carry out the purposes of this Act. The said by-laws, rules, and regulations must be printed in convenient form for distribution in the district. And it is hereby expressly provided that all waters distributed for irrigation purposes shall be apportioned ratably to each land-owner upon the basis of the ratio which the last assessment of such owner for district purposes within said district bears to the whole sum assessed upon the district; *provided*, that any land-owner may assign the right to the whole or any portion of the waters so apportioned to him.

SEC. 12. The Board of Directors shall hold a regular monthly meeting, in their office, on the first Tuesday in every month, and such special meetings as may be required for the proper transaction of business; *provided*, that all special meetings must be ordered by a majority of the Board; the order must be entered of record, and five days' notice thereof must, by the Secretary, be given to each member not joining in the order. The order must specify the business to be transacted, and none other than that specified must be transacted at such special meeting. All meetings of the Board must be public, and three members shall constitute a quorum for the transaction of business; but on all questions requiring a vote, there shall be a concurrence of at least three members of said Board. All records of the Board shall be open to the inspection of any elector during business hours. The Board, and its agents and employes, shall have the right to enter upon any land in the district to make surveys, and may locate the line for any canal or canals, and the necessary branches for the same, on any of said lands which may be deemed best for such location. Said Board shall also have the right to acquire, either by purchase or condemnation, all lands and waters, and other property necessary for the construction, use, supply, maintenance, repair, and improvement of said canal or canals and works, including canals and works constructed and being constructed by private owners, lands for reservoirs, for the storage of needful waters, and all necessary appurtenances. In case of purchase, the bonds of the district, hereinafter provided for, may be used at their par value in payment; and in case of condemnation, the Board shall proceed, in the name of the district, under the provisions of title seven, of part three, of the Code of Civil Procedure. Said Board may also construct the necessary dams, reservoirs, and works for the collection of water for said district, and do any and every lawful act necessary to be done, that sufficient water may be furnished to each land-owner in said district for irrigation purposes. The use of all water required for the irrigation of the lands of any district formed under the provisions of this Act, together with the rights of way for canals and ditches, sites for reservoirs, and all other property required in fully carrying out the provisions of this Act, is hereby declared to be a public use, subject to the regulation and control of the State, in the manner prescribed by law.

SEC. 13. The legal title to all property acquired under the provisions of this Act shall immediately and by operation of law vest in such irrigation district, and shall be held by such district in trust for and is hereby dedicated and set apart to the uses and purposes set forth in this Act. And said Board is hereby authorized and empowered to hold, use, acquire, manage, occupy, and possess said property as herein provided.

SEC. 14. The said Board is hereby authorized and empowered to take conveyances or other assurances for all property acquired by it under the provisions of this Act, in the name of such irrigation district, to and for the uses and purposes herein expressed, and to institute and maintain any and all actions and proceedings, suits at law or in equity, necessary or proper in order to fully carry out the provisions of this Act, or to enforce, maintain, protect, or preserve any and all rights, privileges, and immunities created by this Act or acquired in pursuance thereof. And in all Courts, actions, suits, or proceedings, the said Board may sue, appear, and defend, in person or by attorneys, and in the name of such irrigation district.

SEC. 15. For the purpose of constructing necessary irrigating canals and works and acquiring the necessary property and rights therefor, and otherwise carying out the provisions of this Act, the Board of Directors of any such district must, as soon after such district has been organized as may be practicable, estimate and determine the amount of money necessary to be raised, and shall immediately thereupon call a special election, at which shall be submitted to the electors of such district possessing the qualifications prescribed by this Act, the question whether or not the bonds of said district shall be issued in the amount so determined. Notice of such election must be given by posting notices in three public places in each election precinct in said district for at least twenty days, and also by publication of such notice in some newspaper published in the county, where the office of the Board of Directors of such district is required to be kept, once a week for at least three successive weeks. Such notices must specify the time of holding the election, the amount of bonds proposed to be issued, and said election must be held and the result thereof determined and declared, in all respects as nearly as practicable, in conformity with the provisions of this Act governing the election of officers; *provided*, that no informalities in conducting such an election shall invalidate the same, if the election shall have been otherwise fairly conducted. At such election the ballots shall contain the words, "Bonds—Yes," or "Bonds—No," or words equivalent thereto. If a majority of the votes cast are "Bonds—Yes," the Board of Directors shall immediately cause bonds in said amount to be issued; said bonds shall be payable in gold coin of the United States, in installments as follows, to wit: At the expiration of eleven years not less than five per cent of said bonds; at the expiration of twelve years not less than six per cent; at the expiration of thirteen years not less than seven per cent; at the expiration of fourteen years not less than eight per cent; at the expiration of fifteen years not less than nine per cent; at the expiration of sixteen years not less than ten per cent; at the expiration of seventeen years not less than eleven per cent; at the expiration of eighteen years not less than thirteen per cent; at the expiration of nineteen

(*Continued on page 272.*)

19 REASONS WHY THE "GLIDDEN" LEADS ALL OTHERS:

BECAUSE being made from new ingot steel wire, it is **20** to **50** per cent stronger than others made from "merchant" or scrap steel wire, and

BECAUSE being composed of one-half to full size larger main wires, its strength is increased **200** to **400** pounds breaking strain.

BECAUSE the Galvanized wire is treated by the English process, which instead of burning the wire, as the acid processes do, ACTUALLY INCREASES ITS STRENGTH. We guarantee it to be **300** to **600** pounds stronger than acid galvanized wire.

BECAUSE the Glidden is **one** to **four** ounces per rod **lighter** than any other barb fencing composed of equal size main wires, for reason of its LIGHTER BARB.

BECAUSE it has the **greatest number of barbs** per rod, hence gives **better protection.** It has in the "Thick Set" style **20** to **40** more barbs than other wires.

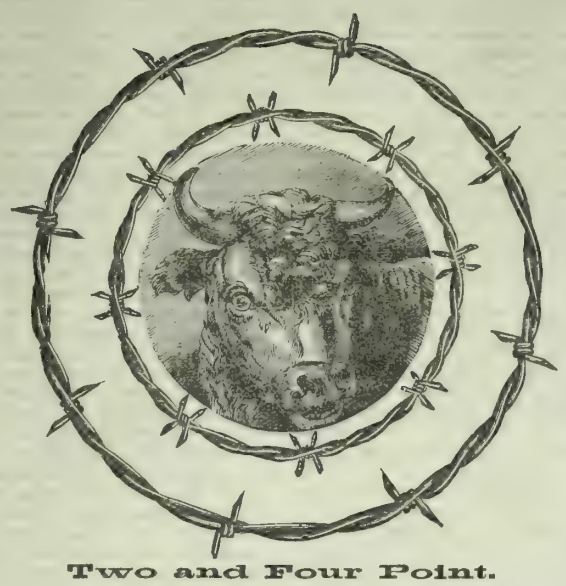
BECAUSE though it has **more** barbs, they weigh **less**, requiring as they do 20 to 50 inches less material to make them.

BECAUSE owing to its **lighter weight per rod**, it will cost for 100 rods of fence, **$1.00** to **$3.00** less than other styles at same price per pound.

BECAUSE it has the **shortest, sharpest, lightest, strongest and most effective** BARB.

BECAUSE its barbs cannot be removed or displaced.

BECAUSE it holds its tension better than any other, as barbs do not bind main wires together, thus interfering with contraction and expansion.



Two and Four Point.

BECAUSE it is more **evenly twisted**, thus giving **full strength of both wires.**

BECAUSE it is twisted just enough to give it spring and elasticity, and not enough to overcome those qualities or to make it unnecessarily heavy.

BECAUSE main wires bind the **barb**, instead of **barb binding main wires**, thus giving spring and elasticity the WHOLE LENGTH OF THE LINE, instead of BETWEEN THE BARBS. It is universally admitted that the Glidden REMAINS TAUT through varying temperatures better than any other.

BECAUSE it has most **weight and strength** in main wires where needed, and **least weight** in barbs.

BECAUSE all the barbs are at right angles to the line, and each standing alone makes **every** point effective.

BECAUSE 100 pounds of Glidden makes as many rods of fence as 130 of other styles, where the same size main wire is used.

BECAUSE a guarantee of quality goes with every pound sold, and the manufacturers stand ready to make it good.

BECAUSE it is the most **perfectly made** on most **approved machinery**, and most rigidly inspected.

BECAUSE, in a word, it is universally admitted to be the **BEST.**

More farmers use the Glidden than all others combined. More railroad companies use it than all others combined. It is better known and better liked than any other. It is the STANDARD OF THE WORLD, and where its merits are known, readily commands **$1.00** per 100 pounds more than any other wire in the market. The manufacturers have never yielded, in the sharpest competition, to the temptation of decreasing the size of the wire, nor the quality of the wire itself.

JONES & GIVENS, PACIFIC COAST GENERAL AGENTS,

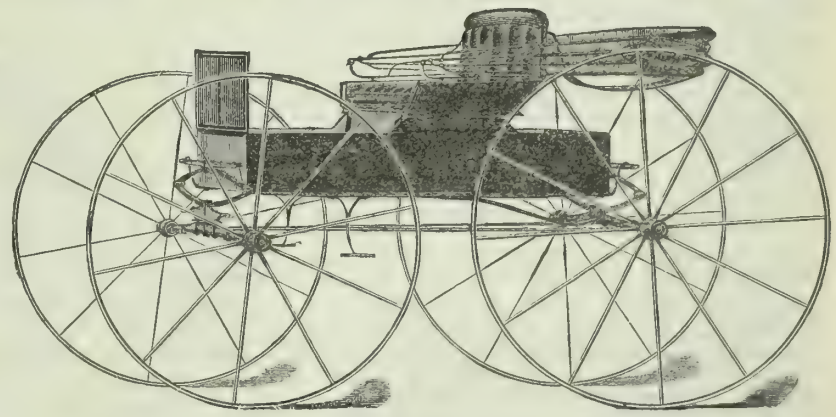
No. 16 BEALE ST., SAN FRANCISCO. **No. 205 & 207 J ST., SACRAMENTO.**

319 and 321 MARKET STREET, SAN FRANCISCO. { # FRANK BROTHERS, } 319 and 321 MARKET STREET, SAN FRANCISCO.

DEALERS IN

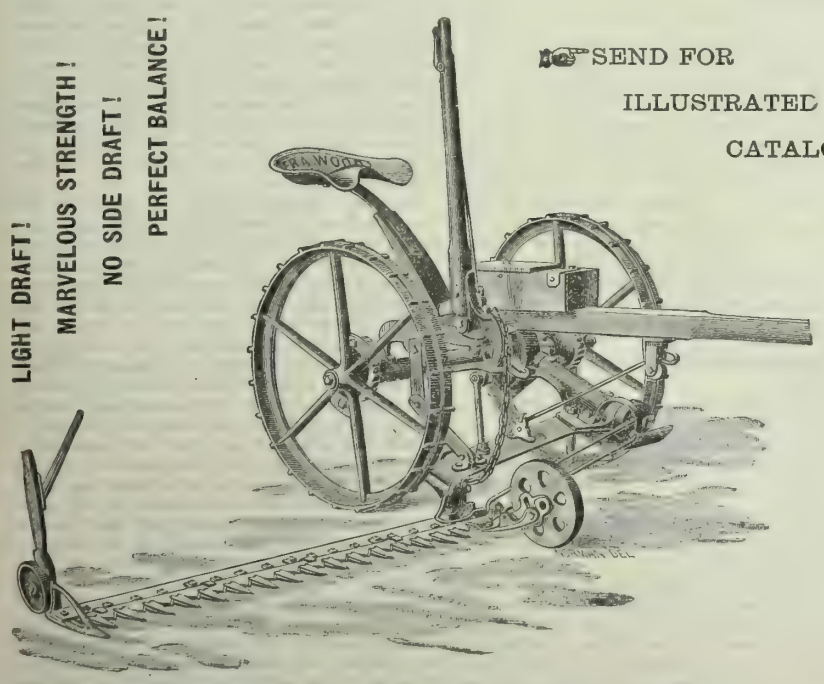
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Our large stock of Vehicles, composed of the most popular styles, and made by leading manufacturers, in each grade of work, enables us to offer intending purchasers unusual facilities. We would call particular attention to our line of Spindle Wagons, or Buckboards, which are taking the lead everywhere as the most desirable in the market.



LIGHT DRAFT! MARVELOUS STRENGTH! NO SIDE DRAFT! PERFECT BALANCE!

☞ SEND FOR ILLUSTRATED CATALOGUE.

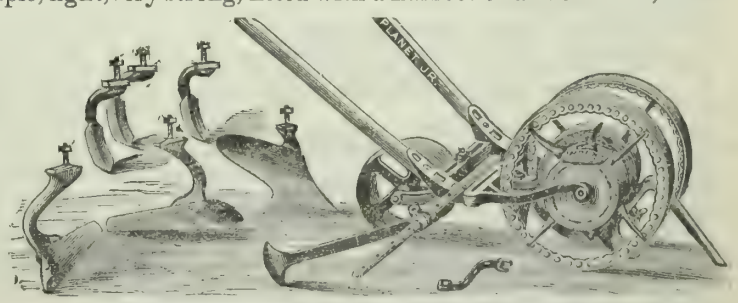


THE WALTER A. WOOD ENCLOSED GEAR MOWER.

It takes first rank in every market by reason of superior mechanical principles, judicious use of steel, iron and brass, accuracy of construction and perfection of workmanship and finish, and genuine economical value to the purchaser.

PLANET JR. GARDEN TOOLS.

Nothing has yet been invented that can equal the PLANET JR. IMPLEMENTS for Gardening; either where the work is done with the aid of a horse or by hand, or both. Simple, light, very strong, fitted with a number of attachments, which give them a wide range of usefulness, the owner of one of these tools can accomplish more for the amount of time and labor expended, and do far better work than in any other way.



PLANET JR. COMBINED GARDEN DRILL.

The Thomas Sulky Rake, Royal Self-Dump Rake,
COATES' LOCK LEVER RAKE, Etc., Etc.

Address: 319 and 321 Market St., San Francisco.

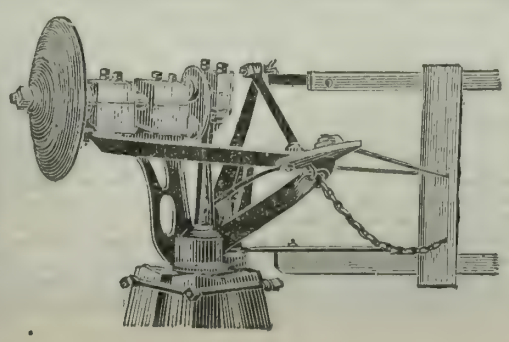
THE BLATCHLY FRUIT DRIER.

A. BLATCHLY, manufacturer of all kinds and sizes of Driers, from the smallest Family Stove Drier to the huge Raisin Drier, holding 100,000 pounds of fruit at a charge. Also, all Machinery required in building Driers, as Steam Engines and Boilers. Steel Fan Wheels—the strongest and lightest running made. Heaters—a great variety. Iron and Wooden Cars of all sizes, with wheels running equally well on a track or floor. Trays, large or small, with Wood, Metal or Wire Cloth Bottoms. Car Tracks, Thermometers, Hygrometers, etc.

RAISIN DRIERS A SPECIALTY.

Being the first to make in Fresno, in 1884, a machine-dried Raisin that sold for as high or higher price than the sun-dried, and having the experience of the last three years, renders it possible to build a Raisin Drier guaranteed to be superior to any now in use in cheapness and efficiency. Estimates and prices furnished on application to

DR. A. BLATCHLY,
237 FIRST STREET, - - - SAN FRANCISCO, CAL.



THE EUREKA IMPROVED

IS OFFERED TO THE CITIZENS OF CALIFORNIA as the

Most Perfect Windmill in Use.

It is very simple, strong and durable. It is self-protecting, and can be managed by a boy or girl. If the Cyclone is the *best* in California and the *best* in the world, then certainly the **Eureka Improved**, invented by the same man, more recently, is superior, and long experience with windmills enables him to speak understandingly.

PRICES:

12-ft	$65 00	16-ft B	$110 00
14-ft	75 00	18-ft	120 00
16-ft A	90 00	20-ft	135 00

E. B. SAUNDERS,
96 Montgomery St., San Jose, Cal

Wright's Irrigation Bill.

(*Continued from page 270.*)

years not less than fifteen per cent; and for the twentieth year a percentage sufficient to pay off said bonds; and shall bear interest at the rate of six per cent per annum, payable semi-annually on the first day of January and July of each year. The principal and interest shall be payable at the office of the Treasurer of the district. Said bonds shall be each of the denomination of not less than one hundred dollars, or more than five hundred dollars, shall be negotiable in form, signed by the President and Secretary, and the seal of the Board of Directors shall be affixed thereto. They shall be numbered consecutively as issued, and bear date at the time of their issue. Coupons for the interest shall be attached to each bond signed by the Secretary. Said bonds shall express on their face that they were issued by authority of this Act, stating its title and date of approval. The Secretary shall keep a record of the bonds sold, their number, the date of sale, the price received and the name of the purchaser.

SEC. 16. The Board may sell said bonds from time to time, in such quantities as may be necessary and most advantageous, to raise money for the construction of said canals and works, the acquisition of said property and rights, and otherwise to fully carry out the objects and purposes of this Act. Before making any sale the Board shall, at a meeting, by resolution, declare its intention to sell a specified amount of the bonds, and the day and hour and place of such sale, and shall cause such resolution to be entered in the minutes, and notice of the sale to be given, by publication thereof at least twenty days, in a daily newspaper published in each of the Cities of San Francisco, Sacramento and Los Angeles, and in any other newspaper, at their discretion. The notice shall state that sealed proposals will be received by the Board, at their office, for the purchase of the bonds, till the day and hour named in the resolution. At the time appointed the Board shall open the proposals, and award the purchase of the bonds to the highest responsible bidder, and may reject all bids; but said Board shall in no event sell any of the said bonds for less than ninety per cent of the face value thereof.

SEC. 17. Said bonds, and the interest thereon, shall be paid by revenue derived from an annual assessment upon the real property of the district; and all the real property in the district shall be, and remain, liable to be assessed for such payments as hereinafter provided.

SEC. 18. The Assessor must, between the first Monday in March and the first Monday in June, in each year, assess all real property in the district, to the persons who own, claim, have the possession or control thereof, at its full cash value. He must prepare an assessment-book, with appropriate headings, in which must be listed all such property within the district, in which must be specified, in separate columns, under the appropriate head:

First—The name of the person to whom the property is assessed. If the name is not known to the Assessor, the property shall be assessed to "Unknown Owners."

Second—Land by township, range, section, or fractional section, and when such land is not a congressional division or subdivision, by metes and bounds, or other description sufficient to identify it, giving an estimate of the number of acres, locality, and the improvements thereon.

Third—City and town lots, naming the city or town, and the number and block according to the system of numbering in such city or town, and the improvements thereon.

Fourth—The cash value of real estate, other than city or town lots.

Fifth—The cash value of improvements on such real estate.

Sixth—The cash value of city and town lots.

Seventh—The cash value of improvements on city and town lots.

Eighth—The cash value of improvements on real estate assessed to persons other than the owners of the real estate.

Ninth—The total value of all property assessed.

Tenth—The total value of all property after equalization by the Board of Directors.

Eleventh—Such other things as the Board of Directors may require.

SEC. 19. The Board of Directors must allow the Assessor as many deputies, to be appointed by him, as will, in the judgment of the Board, enable him to complete the assessment within the time herein prescribed. The Board must fix the compensation of such deputies, which shall be paid out of the treasury of the district. The compensation must not exceed five dollars per day for each deputy, for the time actually engaged, nor must any allowance be made but for work done between the first Monday in March and the first Monday in August in each year.

SEC. 20. On or before the first Monday in August in each year the Assessor must complete his assessment-book, and deliver it to the Secretary of the Board, who must immediately give notice thereof, and of the time the Board of Directors, acting as a Board of Equalization, will meet to equalize assessments, by publication in a newspaper published in each of the counties comprising the district. The time fixed for the meeting shall not be less than twenty nor more than thirty days from the first publication of the notice; and in the meantime the assessment-book must remain in the office of the Secretary for the inspection of all persons interested.

SEC. 21. Upon the day specified in the notice required by the preceding section for the meeting, the Board of Directors, which is hereby constituted a Board of Equalization for that purpose, shall meet and continue in session from day to day, as long as may be necessary, not to exceed ten days, exclusive of Sundays, to hear and determine such objections to the valuation and assessment as may come before them; and the Board may change the valuation as may be just. The Secretary of the Board shall be present during its sessions, and note all changes made in the valuation of property, and in the names of the persons whose property is assessed; and within ten days after the close of the session he shall have the total values, as finally equalized by the Board, extended into columns and added.

SEC. 22. The Board of Directors shall then levy an assessment sufficient to raise the annual interest on the outstanding bonds; and at the expiration of ten years after the issuing of bonds by the Board, must increase said assessment, for the ensuing ten years, in the following percentage of the principal of the whole amount of bonds then outstanding, to wit: For the eleventh year, five per cent; for the twelfth year, six per cent; for the thirteenth year, seven per cent; for the fourteenth year, eight per cent; for the fifteenth year, nine per cent; for the sixteenth year, ten per cent; for the seventeenth year, eleven per cent; for the eighteenth year, thirteen per cent; for the nineteenth year, fifteen per cent; and for the twentieth year, a percentage sufficient to pay off said bonds. The Secretary of the Board must compute and enter in a separate column of the assessment-book the respective sums in dollars and cents to be paid as an assessment on the property therein enumerated. When collected the assessment shall be paid into the district treasury, and shall constitute a special fund to be called the "Bond Fund of (naming the district) Irrigation District."

SEC. 23. The assessment upon real property is a lien against the property assessed, from and after the first Monday in March for any year; and such lien is not removed until the assessments are paid or the property sold for the payment thereof.

SEC. 24. On or before the first day of November, the Secretary must deliver the assessment-book to the Collector of the district, who shall, within twenty days, publish a notice in a newpaper published in each of the counties comprising the district, if there be lands situated in more than one county in such district, that said assessments are due and payable and become delinquent at six o'clock P. M. on the last Monday of December next thereafter; and that unless paid prior thereto, five per cent will be added to the amount thereof, and also the time and place at which payment of assessments may be made. The notice shall also specify a time and place within each election precinct of the district, when and where the Collector will attend to receive payment of assessments, and shall be published for fifteen days, and a printed copy of said notice shall be posted for the same time in some public place in each precinct. The Collector must attend at the time and place specified in the notice, to receive assessments, which must be paid in gold and silver coin; he must mark the date of payment of any assessment in the assessment-book opposite the name of the person paying, and give a receipt to such person, specifying the amount of the assessment and the amount paid, with a description of the property assessed. On the thirty-first day of December of each year, all unpaid assessments are delinquent, and thereafter the Collector must collect thereon, for the use of the district, an addition of five per cent.

SEC. 25. On or before the first day of February, the Collector must publish the delinquent list, which must contain the nathes of the persons and a description of the property delinquent, and the amount of the assessments and costs due opposite each name and description. He must append to and publish with the delinquent list a notice that, unless the assessments delinquent, together with costs and percentage, are paid, the real property upon which such assessments are a lien will be sold at public auction. The publication must be made once a week for three successive weeks in a newspaper published in each of the counties comprised in the district. The publication must designate the time and place of sale. The time of sale must not be less than twenty-one nor more than twenty-eight days from the first publication, and the place must be at some point designated by the Collector.

SEC. 26. The Collector must collect, in addition to the assessments due on the delinquent list and five per cent added, fifty cents on each lot, piece or tract of land separately assessed, one half of which must go to the district and the other to the Collector for preparing the list. On the day fixed for the sale, or some subsequent day to which he may have postponed it, of which he must give notice, the Collector, between the hours of ten o'clock A. M. and three o'clock P. M., must commence the sale of the property advertised, commencing at the head of the list and continuing alphabetically, or in the numerical order of the lots or blocks, until completed. He may postpone the day of commencing the sales, or the sale from day to day, but the sale must be completed within three weeks from the day first fixed.

SEC. 27. The owner or person in possession of any real estate offered for sale for assessments due thereon may designate in writing to the Collector, prior to the sale, what portion of the property he wishes sold, if less than the whole; but if the owner or possessor does not, then the Collector may designate it, and the person who will take the least quantity of the land, or in case an undivided interest is assessed, then the smallest portion of the interest, and pay the assessments and costs due, including two dollars to the Collector for the duplicate certificate of sale, is the purchaser. If the purchaser does not pay the assessments and costs before ten o'clock A. M. the following day, the property on next sale day, before the regular sale, must be resold for the assessments and costs. After receiving the amount of assessments and costs, the Collector must make out in duplicate a certificate dated on the day of sale, stating (when known) the name of the person assessed, a description of the land sold, the amount paid therefor, that it was sold for assessments, giving the amount and the year of the assessment, and specifying the time when the purchaser will be entitled to a deed. The certificate must be signed by the Collector, and one copy delivered to the purchaser, and the other filed in the office of the County Recorder of the county in which the land sold is situated.

SEC. 28. The Collector, before delivering any certificate, must in a book enter a description of the land sold, corresponding with the description in the certificate, the date of the sale, purchasers' names, and amount paid, regularly number the description on the margin of the book and put a corresponding number on each certificate. Such book must be open to public inspection, without fee, during office hours, when not in actual use. On filing the certificate with such County Recorder the lien of the assessments vests in the purchaser, and is only divested by the payment to him, or to the Collector for his use, of the purchase-money and two per cent per month from the day of sale until redemption.

SEC. 29. A redemption of the property sold may be made by the owner, or any party in interest, within twelve months from the date of purchase. Redemption must be made in gold or silver coin, as provided for the collection of State and county taxes, and when made to the Collector he must credit the amount paid to the person named in the certificate, and pay it, on demand, to the person or his assignees. In each report the Collector makes to the Board of Directors, he must name the persons entitled to redemption money, and the amount due to each. On receiving the certificate of sale, the County Recorder must file it and make an entry in a book similar to that required of the Collector. On the presentation of the receipt of the person named in the certificate, or of the Collector, for his use, of the total amount of the redemption money, the Recorder must mark the word "Redeemed," the date, and by whom redeemed, on the certificate and on the margin of the book where the entry of the certificate is made. If the property is not redeemed within twelve months from the sale, the Collector, or his successor in office, must make to the purchaser, or his assignee, a deed of the property, reciting in the deed substantially the matters contained in the certificate, and that no person redeemed the property during the time allowed by law for its redemption. The Collector shall receive from the purchaser, for the use of the district, two dollars for making such deed.

SEC. 30. The matter recited in the certificate of sale must be recited in the deed, and such deed duly acknowledged or proved is prima facie evidence that:

First—The property was assessed as required by law.

Second—The property was equalized as required by law.

Third—That the assessments were levied in accordance with law.

Fourth—The assessments were not paid.

Fifth—At a proper time and place the property was sold as prescribed by law, and by the proper officer.

Sixth—The property was not redeemed.

Seventh—The person who executed the deed was the proper officer.

Such deed duly acknowledged or proved is (except as against actual fraud) conclusive evidence of the regularity of all the proceedings from the assessment by the Assessor, inclusive, up to the execution of the deed. The deed conveys to the grantee the absolute title to the lands described therein free of all incumbrances, except when the land is owned by the United States or this State, in which case it is prima facie evidence of the right of possession.

SEC. 31. The assessment-book or delinquent list, or a copy thereof, certified by the Collector, showing unpaid assessments against any person or property, is prima facie evidence of the assessment, the property assessed, the delinquency, the amount of assessments due and unpaid, and that all the forms of the law in relation to the assessment and levy of such assessments have been complied with.

SEC. 32. When land is sold for assessments correctly imposed, as the property of a particular person, no misnomer of the owner or supposed owner, or other mistake relating to the ownership thereof, affects the sale or renders it void or voidable.

SEC. 33. On the first Monday in each month the Collector must settle with the Secretary of the Board for all moneys collected for assessments, and pay the same over to the Treasurer; and within six days thereafter he must deliver to and file in the office of the Secretary a statement under oath, showing:

First—An account of all his transactions and receipts since his last settlement.

Second—That all money collected by him as Collector has been paid.

The Collector shall also file in the office of the Secretary on said first Monday in each month, the receipt of the Treasurer for the money so paid.

SEC. 34. Upon the presentation of the coupons due to the Treasurer, he shall pay the same from said Bond Fund. Whenever after ten years from the issuance of said bonds, said fund shall amount to the sum of ten thousand dollars, the Board of Directors may direct the Treasurer to pay such an amount of said bonds not due as the money in said fund will redeem, at the lowest value at which they may be offered for liquidation, after advertising for at least four weeks in some daily newspaper in each of the cities hereinbefore named, and in any other newspaper which said Board may deem advisable, for sealed proposals for the redemption of said bonds. Said proposals shall be opened by the Board in open meeting, at a time to be named in the notice, and the lowest bid for said bonds must be accepted; *provided*, that no bond shall be redeemed at a rate above par. In case the bids are equal, the lowest-numbered bond shall have the preference. In case none of the holders of said bonds shall desire to have the same redeemed, as herein provided for, said money shall be invested by the Treasurer, under the direction of the Board, in United States gold-bearing bonds, or the bonds of the State, which shall be kept in said "Bond Fund," and may be used to redeem said dis rict bonds whenever the holders thereof may desire.

SEC. 35. After adopting a plan of said canal or canals, storage, reservoirs, and works, the Board of Directors shall give notice, by publication thereof not less than twenty days in one newspaper published in each of the counties composing the district, provided a newspaper is published therein, and in such other newspapers as they may deem advisable, calling for bids for the construction of said work, or of any portion thereof; if less than the whole work is advertised, then the portion so advertised must be particularly described in such notice; said notice shall set forth that plans and specifications can be seen at the office of the Board, and that the Board will receive sealed proposals therefor, and that the contract will be let to the lowest responsible bidder, stating the time and place for opening said proposals, which at the time and place appointed shall be opened in public, and as soon as convenient thereafter the Board shall let said work, either in portions or as a whole, to the lowest responsible bidder, or they may reject any or all bids and readvertise for proposals, or may proceed to construct the work under their own superintendence with the labor of the residents of the district. Contracts for the purchase of the material shall be awarded to the lowest responsible bidder. Any person or persons to whom a contract may be awarded shall enter into a bond, with good and sufficient sureties, to be approved by the Board, payable to said district for its use, for double the amount of the contract price, conditioned for the faithful performance of said contract. The work shall be done under the direction and to the satisfaction of the Engineer, and be approved by the Board.

SEC. 36. No claim shall be paid by the Treasurer until allowed by the Board, and only upon a warrant signed by the President and countersigned by the Secretary; *provided*, that the Board may draw from time to time from the Construction Fund and deposit it in the County Treasury of the county where the office of the Board is situated, any sum in excess of the sum of twenty-five thousand dollars. The County Treasurer of said county is hereby authorized and required to receive and receipt for the same, and place the same to the credit of said district, and he shall be responsible upon his official bond for the safekeeping and disbursement of the same, as in this Act provided. He shall pay out the same, or any portion thereof, to the Treasurer of the district only, and only upon the order of the Board, signed by the President and attested by the Secretary. The said County Treasurer shall report in writing, on the second Monday in each month, the amount of money in the County Treasury, the amount of receipts for the month preceding, and the amount or amounts paid out; said report shall be verified and filed with the Secretary of the Board. The District Treasurer shall also report to the Board, in writing, on the first Monday in each month, the amount of money in the District Treasury, the amount of receipts for the month preceding, and the amount and items of expenditures, and said report shall be verified and filed with the Secretary of the Board.

SEC. 37. The cost and expense of purchasing and acquiring property, and constructing the works and improvements herein provided for, shall be wholly paid out of the Construction Fund. For the purpose of defraying the expenses of the organization of the district, and of the care, operation, management, repair and improvement of such portions of said canal and works as are completed and in use, including salaries of officers and employes, the Board may either fix rates of tolls and charges, and collect the same from all persons using said canal for irrigation and other purposes, or they may provide for the payment of said expenditures by a levy of assessments therefor, or by both said tolls and assessments; if by the latter method, such levy shall be made on the completion and equalization of the assessment roll,

and the Board shall have the same powers and functions for the purposes of said levy as are now possessed by Boards of Supervisors in this State. The procedure for the collection of assessments by such levy shall in all respects conform to the provisions of this Act relating to the payment of principal and interest of bonds herein provided for.

SEC. 38. The Board of Directors shall have power to construct said works across any stream of water, water-course, street, avenue, highway, railway, canal, ditch or flume which the route of said canal or canals may intersect or cross, in such manner as to afford security for life and property; but said Board shall restore the same, when so crossed or intersected, to its former state as near as may be, or in a sufficient manner not to have impaired unnecessarily its usefulness; and every company whose railroad shall be intersected or crossed by said works, shall unite with said Board in forming said intersections and crossings, and grant the privileges aforesaid; and if such railroad company and such Board, or the owners and controllers of the said property, thing, or franchise so to be crossed, cannot agree upon the amount to be paid therefor, or the points or the manner of said crossings or intersections, the same shall be ascertained and determined in all respects as is herein provided in respect to the taking of land. The right of way is hereby given, dedicated, and set apart to locate, construct, and maintain said works over and through any of the lands which are now, or may be, the property of this State; and also there is given, dedicated, and set apart, for the uses and purposes aforesaid, all waters and water rights belonging to this State within the district.

SEC. 39. The Board of Directors shall each receive four dollars per day, and mileage at the rate of twenty cents per mile, in attending meetings, and actual and necessary expenses paid while engaged in official business under the order of the Board. The Board shall fix the compensation to be paid to the other officers named in the Act, to be paid out of the Treasury of the district; *provided*, that said Board shall, upon the petition of at least fifty, or a majority of the freeholders within such district therefor, submit to the electors at any general election a schedule of salaries and fees to be paid hereunder. Such petition must be presented to the Board twenty days prior to a general election, and the result of such election shall be determined and declared in all respects as other elections are determined and declared under this Act.

SEC. 40. No Director or any other officer named in this Act shall in any manner be interested, directly or indirectly, in any contract awarded or to be awarded by the Board, or in the profits to be derived therefrom; and for any violation of this provision, such officer shall be deemed guilty of a misdemeanor, and such conviction shall work a forfeiture of his office, and he shall be punished by a fine not exceeding five hundred dollars, or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment.

SEC. 41. The Board of Directors may, at any time, when in their judgment it may be advisable, call a special election, and submit to the qualified electors of the district, the question, whether or not a special assessment shall be levied for the purpose of raising money to be applied to any of the purposes provided in this Act. Such election must be called upon the notice prescribed, and the same shall be held, and the result thereof determined and declared in all respects in conformity with the provisions of section fifteen of this Act. The notice must specify the amount of money proposed to raise, and the purpose for which it is intended to be used. At such elections the ballots shall contain the words, "Assessment—Yes," or "Assessment—No." If two-thirds or more of the votes cast are "Assessment—Yes," the Board shall, at the time of the annual levy hereunder, levy an assessment sufficient to raise the amount voted. The rate of assessment shall be ascertained by deducting fifteen per cent for anticipated delinquencies from the aggregate assessed value of the property in the district, as it appears on the assessment roll for the current year, and then dividing the sum voted by the remainder of such aggregate assessed value. The assessments so levied shall be computed and entered on the assessment roll by the Secretary of the Board, and collected at the same time and in the same manner as other assessments provided for herein; and when collected shall be paid into the District Treasury for the purposes specified in the notice of such special election.

SEC. 42. The Board of Directors, or other officers of the district, shall have no power to incur any debt or liability whatever, either by issuing bonds, or otherwise, in excess of the express provisions of this Act; and any debt or liability incurred, in excess of such express provisions, shall be and remain absolutely void.

SEC. 43. In case the volume of water in any stream or river shall not be sufficient to supply the continual wants of the entire country through which it passes, and susceptible of irrigation therefrom, then it shall be the duty of the Water Commissioners, constituted as hereinafter provided, to apportion, in a just and equitable proportion, a certain amount of said water upon certain or alternate weekly days to different localities, as they may, in their judgment, think best for the interest of all parties concerned, and with due regard to the legal and equitable rights of all. Said Water Commissioners shall consist of the Chairman of the Board of Directors of each of the districts affected.

SEC. 44. It shall be the duty of the Board of Directors to keep the water flowing through the ditches under their control to the full capacity of such ditches in times of high water.

SEC. 45. Navigation shall never in anywise be impaired by the operation of this Act, nor shall any vested interest in or to any mining water rights or ditches, or in or to any water or water rights, or reservoirs or dams, now used by the owners or possessors thereof, in connection with any mining industry, or by persons purchasing or renting the use thereof, or in or to any other property now used directly or indirectly in carrying on or promoting the mining industry, ever be affected by or taken under its provisions, save and except that rights of way may be acquired over the same.

SEC. 46. None of the provisions of this Act shall be construed as repealing or in anywise modifying the provisions of any other Act relating to the subject of irrigation or Water Commissioners. Nothing herein contained shall be deemed to authorize any person or persons to divert the waters of any river, creek, stream, canal or ditch, from its channel, to the detriment of any person or persons having any interest in such river, creek, stream, canal or ditch, or the waters therein, unless previous compensation be ascertained and paid therefor, under the laws of this State authorizing the taking of private property for public uses.

SEC. 47. This Act shall take effect immediately.

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"A lucky man is rarer than a white crow," says Juvenal, and we think he knew. However, we have heard of thousands of lucky ones and we propose to let their secret out. They were people broken down in health, suffering with liver, blood and skin diseases, scrofula, dropsy, and consumption, and were lucky enough to hear of and wise enough to use Dr. Pierce's "Golden Medical Discovery," the sovereign blood purifier, tonic and alterative of the age.

A Bonanza Mine

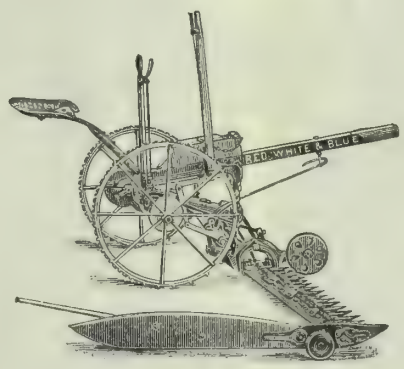
Of health is to be found in Dr. R. V. Pierce's "Favorite Prescription," to the merits of which as a remedy for female weakness and kindred affections thousands testify.

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NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS OF THE GRANGERS' BUSINESS ASSOCIATION, a corporation, for the election of a Board of Directors for the ensuing year, and for the transaction of such other business as may properly come before it, will be held at the office of the corporation, 108 Davis Street, San Francisco, at 10 o'clock A. M., Wednesday, April 13, 1887.

CHAS. WOOD, Sec'y. DANIEL INMAN, Pres't.



We want every farmer interested in the cutting of grass for hay to aid us in the introduction of the RED, WHITE and BLUE MOWER, because after thorough, practical tests in the toughest cutting to be found in California, these points have been demonstrated beyond question:

1. It is the best built Mower, and therefore the strongest and most durable.

2. It will work successfully in the most difficult cutting. It cannot be clogged or choked.

3. Though the strongest and best cutting machine, it is not a horse-killer. From comparative tests it is found to be the lightest running machine in the large family of Mowers.

Any rancher contemplating the purchase of a Mower for the coming harvest, will do well to inform us, that we may submit for his consideration our proposition on the RED, WHITE and BLUE.

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Parties wishing personal attention and careful selection of stock, as well as early delivery in fall, of fruit or ornamental trees, lily bulbs, chestnut, pear and other seeds, ready for shipment by that time, will please send orders to our usual address, from where letters will be forwarded to Yokohama.

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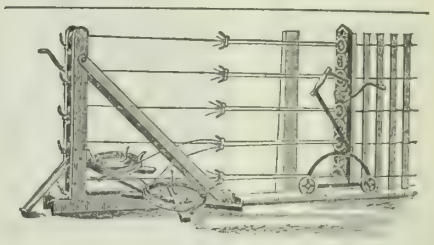
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The Latest Fashions.

Ladies' Costume.

FIG. 1.—The materials here combined are velvet and wool suiting. The skirt is fashioned in the round four-gored style, and is plainly finished at the edge. The front gore is covered by a panel that is its counterpart in shape, and on either side gore is a kilted panel reaching more than half-way to the belt, the plaits being very wide and numbering three that turn forward, the front plaits overlapping the front panel. Overhanging the top of the kilted panel is a plain panel that is deeply reversed on the outside at the bottom; a facing of velvet covers the reversed portion, and three large oxidized buttons placed over long, simulated buttonholes appear to hold the edge in place. The result is unique and remarkably pretty. The back drapery falls to the edge of the skirt, and is very simply arranged in two bournous loops at the top, the loops being seamed and deftly caught to the skirt. Gathers adjust the top of the drapery and complete the draping. A most simple but handsome effect is developed in the basque, which shapes a point at the end of the closing, and is deepened back of the first darts to fall square at either side of the point. Buttons and buttonholes close it down the center, and some distance from the closing on either side of the front is applied a band of velvet that is curved in quite narrow at the waist-line and widened toward the shoulders and also toward the lower edge of the deeper part of the front. A jaunty vest effect is thus achieved, and two large buttons arranged upon large simulated buttonholes are placed on the deeper part of the front just back of the bands. Double bust darts, under-arm and side-back gores and a curving center seam adjust the basque superbly, and all the seams are continued in their graceful curves to the lower edge. The standing collar is of velvet, and deep cuffs that flare at the upper side are simulated with velvet and afford a handsome finish for the coat sleeves. Frequently the center-front panel will be of contrasting material to correspond with either of the panels on the sides. All kinds of dress goods of the new spring and also of the standard varieties will be made up into costumes of this description, and a wide field is left for some unique and pretty developments with material and decoration. Velvet may be fashionably used with all kinds of dress goods. It is obtainable in all shades at reasonable prices, what is called silk velvet being rarely used except for very choice dresses. The hat is trimmed with striped silk and a bird, and its brim is smoothly faced with velvet.

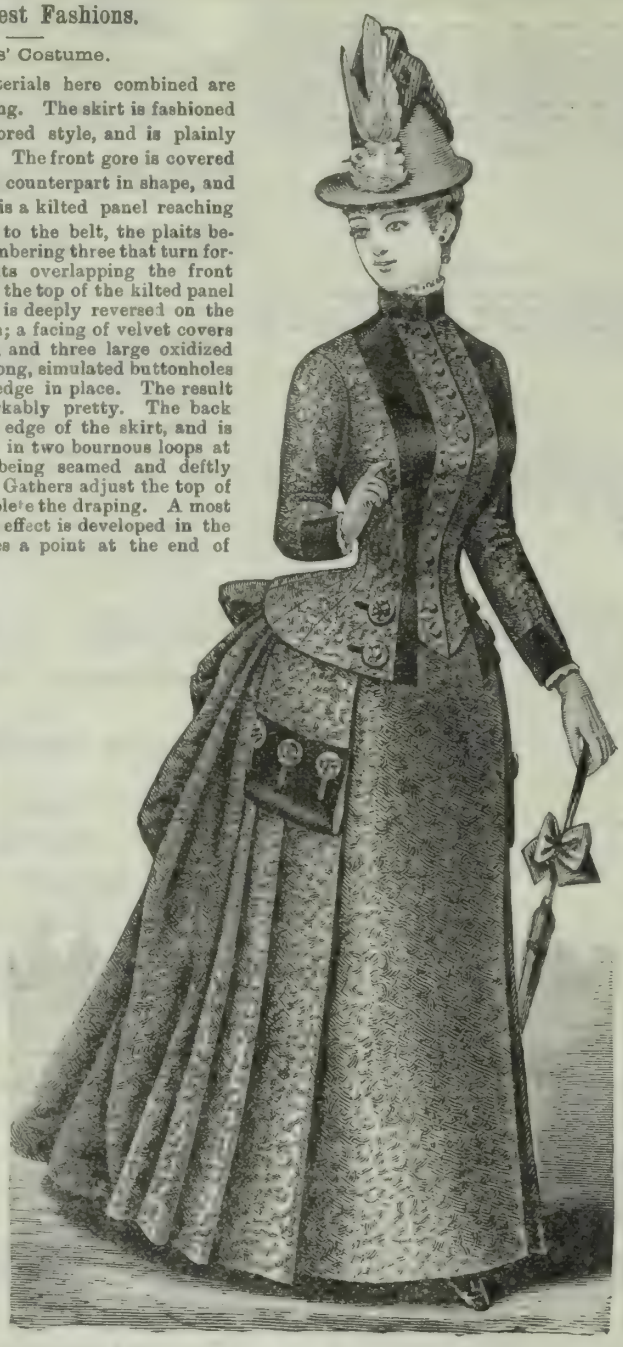


Fig. 1.—LADIES' COSTUME.



Fig. 3.—LADIES' HAT.



Fig. 2.—GIRL ' COSTUME.

Girls' Costume.

FIG. 2.—The costume is here shown developed in garnet-colored cloth and surah, with velvet for the cuffs. The fronts are arranged to close down one side from a little in front of the shoulders, and on the wider or overlapping front is arranged a pompadour puff that is shirred at the neck and lower edge, the latter coming at the bust. Across the lower edge of the puff are straps of braid that have their pointed ends lapped under buttons at the center; and below these the front is crossed by straps similarly arranged, the lowest strap coming over the seam joining the skirt to the body. Jacket fronts are arranged upon these fronts and are wide apart at their front edges, to which are joined lapels that gradually narrow toward the lower end, and are quite broad at the top. Three short straps of braid decorate the upper part of the lapels, their back ends being pointed and ornamented with a button. Side-back gores and a curving center seam make the adjustment graceful and clinging at the back and sides. The skirt is laid in pretty kilt plaits and is hemmed at the lower edge. A unique-looking sash drapery consisting of three parts is arranged at the back. One part is folded over in a *revers* at one edge and arranged in a loop and long end; a shorter section is plaited to form a very short end that flares in fan fashion, and a longer end that falls a little below the loop; and these two parts are caught together at their plaits under a plaited cross-piece. The coller is in the round, flat style and extends no further forward than the lapels. The cuffs are formed of two parts that lap at the under and upper sides of the wrists, and are pretty completions to well-fitting coat sleeves. A plaited piece is arranged upon the front below the puff in the original garment and is provided in the pattern, but in this instance it is omitted to show that it is not really needful. All varieties of dress goods devoted to the costumes of little women may be stylishly fashioned by the mode, and the lapels, collar and cuffs may be edged with beads or drop ornaments, decorated with braid or overlaid with lace or embroidery. Plain and plaid or striped fabrics combine well in this way. The hat is trimed with surah, and the brim is smoothly faced with velvet.

Ladies' Hat.

FIG. 3.—Dark-brown straw of a coarse grade forms this hat. It is quite large, and with its high crown and rolling brim will be becoming to all but small women, who would look extinguished under it. A band of brown velvet is about the crown, and slightly to one side is a cluster of ribbon loops, the ribbon being velvet and in two colors—green and brown. Three brown tips are arranged to droop over these loops, and an amber ornament is fastened in front. A strap of the ribbon extends over the brim on the trimmed side, apparently holding it in place.

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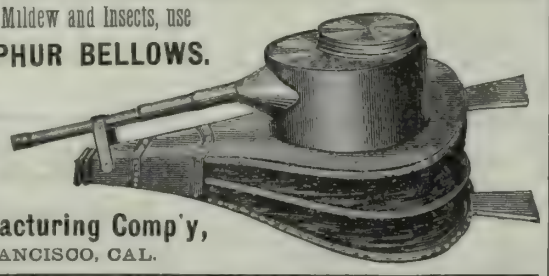
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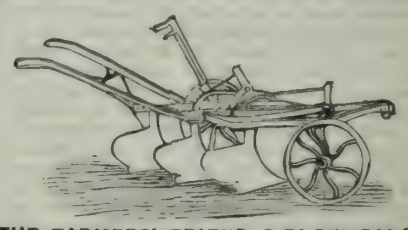
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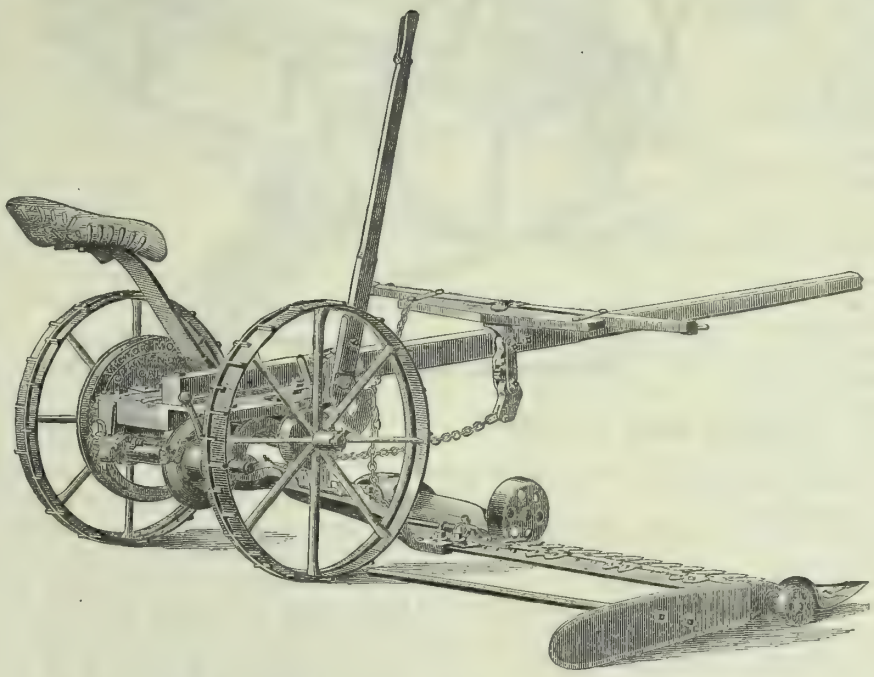
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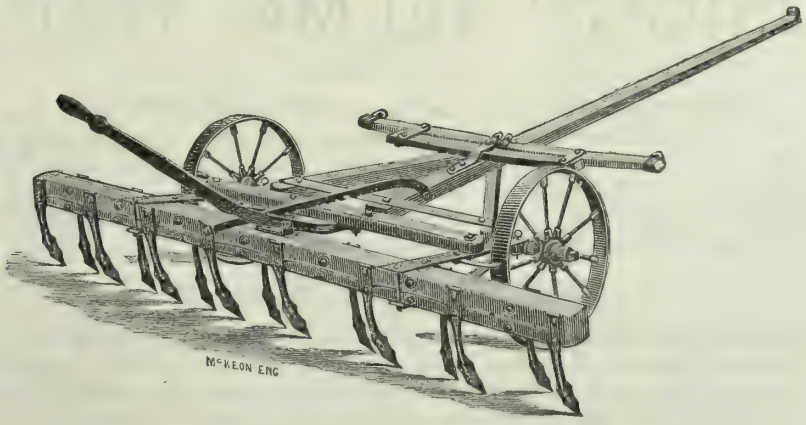
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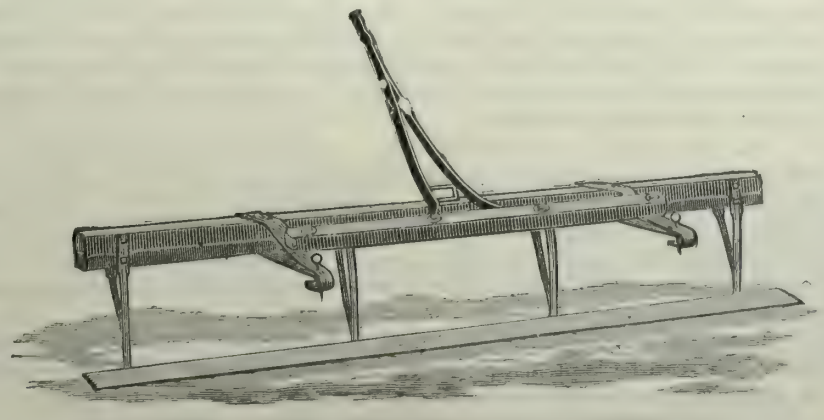
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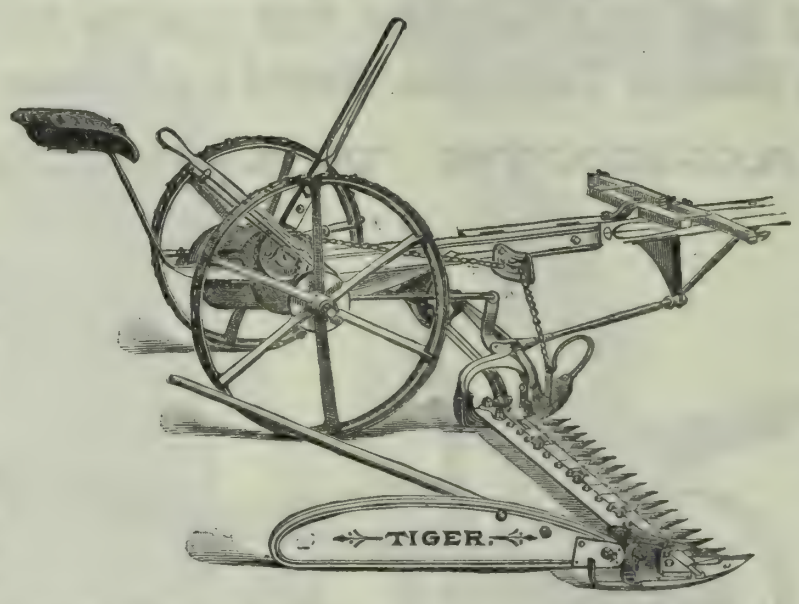
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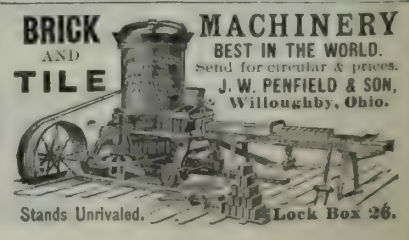
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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Mar. 17-23.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.06	51	S	LR.	.00	57	S	Cy.	.00	58	S	Cy.	*.—	57	E	Th.	.01	65	SW	Cy.	.00	61	W	Cl.
Friday	.33	45	E	Fr.	.16	55	N	Cl.	.02	54	Nw	Cl.	.10	54	N	Cl.	.00	66	W	Fr.	.00	60	N	Cy.
Saturday	.04	54	NE	Cl	.00	65	N	Fr.	.00	58	Nw	Cl.	.00	60	W	Cl.	.00	66	SW	Cl.	.00	60	W	Cl.
Sunday	.11	51	Nw	Fr	.00	69	N	Cl.	.00	61	Nw	Cl.	.00	63	Nw	Cl	.00	74	W	Cl.	.00	60	Nw	Cl.
Monday	.00	58	Nw	Cl.	.00	72	N	Cl.	.00	68	Nw	Cl.	.00	70	N	Cl.	.00	78	W	Cl.	.00	61	Nw	Cl.
Tuesday	.00	66	E	Cl.	.00	75	N	Cl.	.00	68	Nw	Cl	.00	72	NE	Cl.	.00	83	SW	Cl	.00	80	NE	Cl.
Wednesday	.00	55	Nw	Cy.	.00	68	N	Cy.	.00	66	E	Cy.	.00	65	Nw	Cy.	.00	82	W	Fr.	.00	72	Nw	Fr.
Total	.54				.16				.02				.10				.01				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MARCH 15, 1887.

359,418.—LUBRICANT—J. B. C. Barbanson, S. F.
359,438.—BOTTLE SAFE—D. Getleson, S. F.
359,396.—CABLE RAILWAY CROSSING—H. H. Lynch, S. F.
359,358.—CIGAR-TIP PROTECTOR—P. Mish, S. F.
359,403.—AXLE AND WHEEL—J. Pettinger, Carpinteria, Cal.
359,470.—SEED DRILL—F. Reyner, Lathrop, Cal.
359,405.—HOISTING-JACK—D. B. Scott, S. F.
359,365.—GARMENT SUPPORTER—R. H. Sink, Grass Valley, Cal.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

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Of 20,200 acres;

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Of 11,000 acres, and 12,000 acres of the

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All ying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

Will sell

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About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch,** consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

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Title, U. S. Patent and to be free and clear of all incumbrances.

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Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments, at 2, 3, 4 and 5 years; interest 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

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Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

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Providing that no bid will be entertained at less than 60 per cent of schedule prices.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

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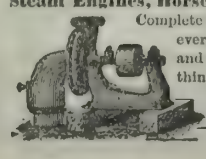
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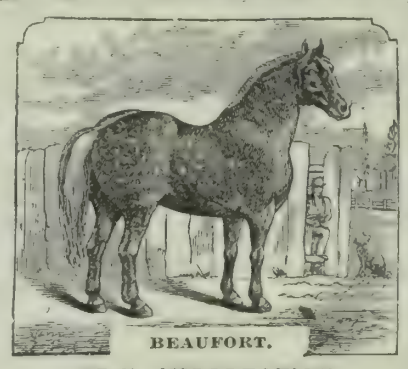
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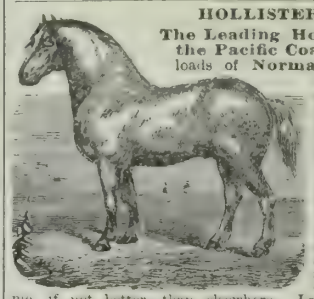
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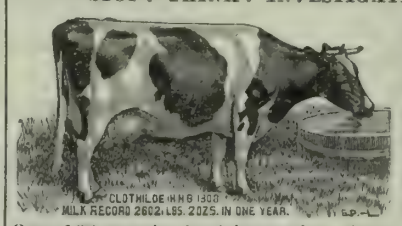
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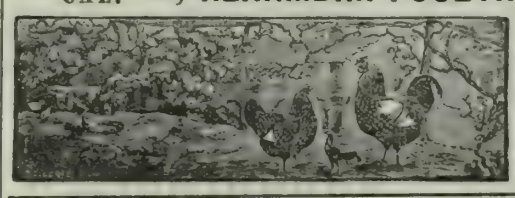
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See my record at the California Poultry Show, held at San Francisco, January 11th to 16th, 1886. Out of 21 coops I entered for competition, I won **23 prizes and 11 special**, including **$10 for best collection of California-bred Birds.** EGGS, $3 for 13. **Birds on hand and for sale** at all times. Send for Circular and mention PACIFIC RURAL PRESS. Address,

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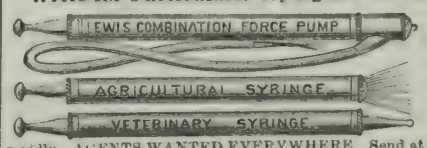
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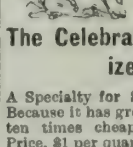
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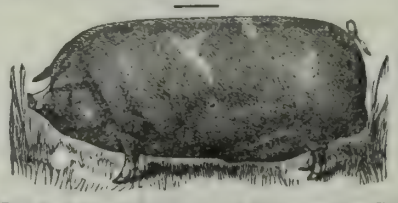
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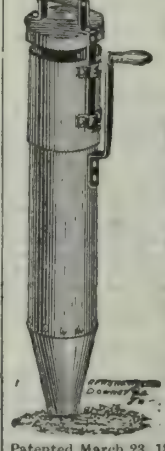
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My strain of Langshans are noted for their purity, large size and fine layers. Early Chicks for sale. Eggs, $3 for 13.

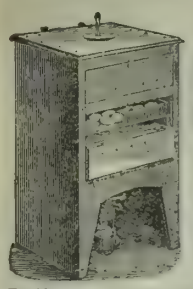
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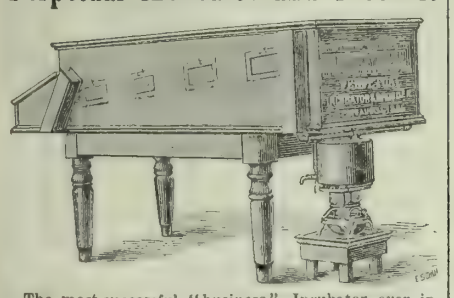
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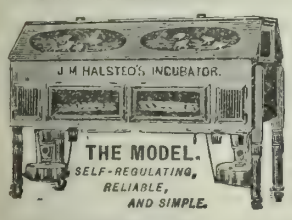
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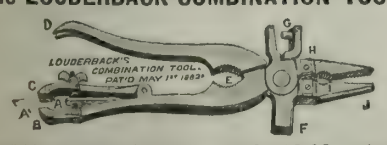
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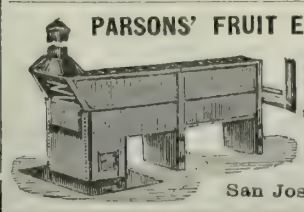
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 23, 1887.

The past week has shown continued activity in all lines of produce, with free shipments of such articles to the East as will be affected by the higher freight tariffs that will go into effect on April 5 next. Wheat has ruled quite strong in Europe, particularly for white wheat, such as harvested on this coast. The English market closed yesterday as follows:

LONDON, March 23, 1887.—Cargoes off coast, quiet but steady; on passage and for shipment, red wheat dull but white firmly held; Mark Lane, quiet; Cal. wheat, off coast, 37s 9d; just shipped, 39s 6d; nearly due, 38s; French country market, firm; Liverpool wheat, spot, rather easier; Liverpool wheat, Cal., 7s 6½d to 7s 9½d.' Weather in England, showery.

Foreign Review.

LONDON, March 21.—The *Mark Lane Express*, in its weekly review of the British grain trade, says The English wheat market is dull and irregular. Sales of English wheat during the past week were 418,965 quarters, at 32s 11d, against 72,519 quarters, at 30s 1d, during the corresponding week of last year. Anxiety is caused by discovery of large quantities of the pupæ of the Hessian fly in the screenings of wheat coming from the thrashing machines throughout the provinces. The *Agriculturist* urges the immediate destruction by fire of all screenings, claiming that if there is any delay it will be too late to cope with the pest. Flour is dull and weaker, owing to the enormous supplies from America. Foreign wheat does not improve. Indian and Russian are cheaper. Liverpool quotation is 1d lower. Corn is steady and prices are against buyers. Linseed fell 1s, but regained 6d toward the close of the week. There were three arrivals of wheat cargoes; two were withdrawn and one was sold. At to-day's market wheat was dull. Some sales were 6d under last Monday, for both English and foreign. Country flour was unchanged. Foreign flour was 6d lower, barley was 3d cheaper and sound oats were unchanged, but inferior were 6d lower. Linseed recovered 3d.

LONDON, March 21.—There is to be an option market in London at last, and the rules have been printed. As drawn they do not allow the sale of Californians (Liverpool delivery), but dealers in this contract are of opinion it will have to come to that.

Crops at the East.

CHICAGO, March 20.—The following crop summary will appear in the *Farmers' Review* this week: Reports from crop correspondents in 25 counties in Illinois this week are of a uniformly favorable tenor in reference to winter wheat. The condition of wheat throughout the State at the present time is up to the full average of the condition for the past five years. The tenor of Indiana reports continues favorable. Injury is reported from Ashtabula county, O., but the reports from 17 other counties in that State are all favorable. The wheat outlook in Missouri is more favorable than at any time during the three preceding years. The general situation in Kansas is slightly improved. Injury is reported in Genesee and Wayne counties, Michigan, and the crop in the lowlands throughout Southern Michigan exhibits damage, but the crop looks well in the uplands. Wisconsin reports are favorable.

Eastern Wheat Markets.

NEW YORK, March 19.—Wheat ruled irregular and unsettled throughout the week, with fairly active trading, both spot and options closing steady; spot, ¼@1c lower for the week, and options ⅛@¼c higher on near months, and ⅛c lower on August and September, as follows: March, 91¼ cents, April, 91¾; May, 92⅜; June, 91¾; July, 90⅝; August, 90⅜; September, 91.

NEW YORK, March 23.—92¾c for cash; 91¼c for March; 91¼c for April; 91⅝@91¾c for May.

CHICAGO, March 23.—75¾c for cash; 76c for April; 81⅛@81¼c for May.

Eastern Wool Markets.

BOSTON, March 19.—Wool market dull, and transactions of week small, amounting to 1,773,100 lbs of all kinds. Sales include 22,000 lbs medium Montana at 21@26c; 2500 lbs medium Montana, 25c; 8000 lbs medium Utah, 25c; 20,000 lbs medium Montana, 22c; 25,000 lbs choice Colorado, 22c; 30,000 lbs fine Montana, 21c; 45,000 lbs fine, 27@28c; 10,000 lbs medium and three-eighths, 20@20½c; 10,000 lbs Colorado, and 60,000 lbs fine medium on private terms. There has been more doing in fall Texas wool, mostly at low prices. Oregon wools are in fair demand, with sales of 25,000 lbs choice No. 1 valley at 28@29; 30,000 lbs No. 2, do, 25@26c; 100,000 lbs fine Eastern scoured, 60c; and 2500 lbs Eastern at private terms. California wool is dull and nominal. There have been sales of only 2000 lbs fall on private terms. Receipts of the week were 4315 bales domestic and 1657 bales foreign.

NEW YORK, March 19.—There has not been much business through the week. Manufacturers have been buying more to cover special wants. The feeling as to prices on desirable lots is quite steady, but prices on some undergrades favor buyers. Lower and medium fleeces and super pulled wools are the best material maintained, while Territorial wools are considerably demoralized. Among sales were 5000 lbs California spring at 16 cents; 15,000 lbs California fall at 12 cents; 30,000 lbs of unwashed Western at 33c; 45,000 lbs Territory at 18½@21c; 100,000 lbs fall and spring Texas at 20@22c.

While the Philadelphia market was dull during the week, a better feeling prevailed at the close. Holders continue to stand out against further concessions. Among sales were 20,000 lbs Oregon fine at 28½c; 30,700 lbs Territory medium at 20@22½c; 1000 lbs Territory fall at 17c; 2000 lbs scoured Territory at 57½c; 7000 lbs Montana fine at 27c.

New York Hop Market.

NEW YORK, March 19.—Brewers are still very indifferent buyers, and dealers are doing nothing that way except when a positive bargain may be picked up. Some small lots of fine quality Pacific are occasionally sold at 20@22c, and choice Bavarian brings as much as 22@24c in one or two bale lots; but transactions in 1886 hops, of any kind, at over 17@18c, are rare. Coast crop, 1885, good to prime, 8@10 cents.

Dried and Canned Fruit at the East.

NEW YORK, March 19.—Canned Goods—There is a quiet market for all descriptions. Peas are lower, though supplies are said to be quite small. Tomatoes are dull at $1.07½@1.10. Fruits are of slow sale. California canned peaches $2.50@2.70; pears $2.50@3.25; plums $1.75@2; grapes $1.75@2; apricots $2.10@2.50.

Dried Fruits—For raisins, owing to strong competition, lower prices prevail. California, two-crown loose Muscatel, quoted at $1.20; do three-crown, $1.40; California Londons, $1.50@1.70. Prunes, Turkish, are selling at 4⅛@4¾c; French, quiet, at 7@7¼c. Currants, easier at 4¾c. Citron, quiet at 17¼c.

California Fruit in Chicago.

CHICAGO, March 21.—Oranges—Receipts of oranges from California have increased considerably this week, and the quality of the fruit arriving here is much improved. About 30 per cent of the oranges on the market here are from California and are in good demand at prices a little firmer for choice and easier for poor stock than those ruling last week. Of very choice fruit there is only a moderate supply, the bulk being of the cheaper grade. Seedlings are quoted, $2.50@3.25; Navels, $2@6, and bloods, $5.

Dried Fruits—Rather quiet. Choice bright qualities meet with a moderate demand, but common dark lots are not moving off very well. Sliced apples, scarce; evaporated are also firm, owing to light supplies. Good qualities at medium prices can also be sold. Peaches are not much better than nominal. The supply is small and consists mainly of old, which are pretty good in quality, but meet with a limited demand. California dried fruits are, as a rule, held steadily, but no large transactions are heard of. Prunes, French, ₩ lb, 8@9¼c; Prunes, pitted, 8@9¼c; Plums, pitted, 10@10½c; Peaches, halves, 11@11½c; do, halves, pared, 20@21c; Figs, 6@8c; Nectarines, 9c; Pears, 8@8½c; Raisins, London layers, 20-lb boxes, ₩ box, $1.40@1.50; loose Muscatel, ₩ box, $1.20@1.30; California layers, ₩ box, $1.25@1.35.

California Products at New York.

NEW YORK, March 20.—Seeds quiet. California yellow mustard, 3¾@4c.

Local Markets.

BAGS—The market for Calcutta standard sizes closed weak at lower prices, owing to buyers being offish and sellers more urgent. Spot sales are reported at 5⅞ to 6 cts; and for June-July delivery at 6⅛ to 6¼ cts.

BARLEY—The market, under a strong and active demand to meet Call Board sales, moved up to $1.06¼ for good feed, but since then it has sold lower, with an easy tone at the close. Stocks, it is claimed, are being concentrated. The consumption is increasing. On Call, transactions have been free; buyer season sold up to $1.08½ per ctl. The market closed weak. Sales on Call yesterday were as follows:

Morning Session: Buyer season—200 tons, $1.06¼; 100, $1.05¾; 200, $1.05; 1000, $1.04½; 500, $1.04⅜; 100, $1.04⅝; 100, $1.04⅞; 300, $1.04¾. Buyer 1887—200 tons, $1.06¼. Seller season—100 tons, $1.01½. May—100 tons, $1.02 ₩ ctl.

BUTTER—There is a strong bear pressure, owing, it is said, to dealers desiring to buy cheaper so as to pack consignments as low as possible. The stock of fresh in rolls is quite heavy.

CHEESE—The market appears to be steadier, under a larger consumptive demand. It is claimed that with free receipts prices will shade off, but with lighter receipts a higher range is looked for.

EGGS—Heavy receipts of Eastern have depressed the poorer qualities, but strictly choice being in lighter supply, sell at an advance.

FLOUR—The market closed strong at an advance of 10 cts per bbl; another advance is looked for soon.

WHEAT—The market has ruled very strong throughout the week, and at a higher range of values. The buying came chiefly from the short sellers on Call, who sold buyer season options and bought the actual wheat so as to make the delivery. Transactions on Call the past week were large and at attractive fluctuations, but at a gradual advance. The recorded sales made yesterday were as follows:

Morning Session: Buyer season—100 tons, $1.71; 1300, $1.70¾; 100, $1.70⅝; 2100, $1.70½; 500, $1.70⅜; 400.$1.70¼; 1000, $1.70. Buyer 1887—100 tons, $1.75; 100, $1.75½; 100, $1.75¼; 100, $1.75¾. Seller 1887—600 tons, $1.56¼; 200, $1.56⅜; 100, $1.56¾; 100, $1.56⅞; 400, $1.57. May—900 tons, $1.68; 1300, $1.68¼. June—100 tons, $1.69½. July—100 tons, $1 69; 300, $1.68¼; 300, $1.68. September—200 tons, $1.63⅞ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The exports of wheat from the United States, from July 1, 1886, to March 1, aggregated 108,170,000 bushels. Taking this and adding to it the quantity 335,000,000 bushels required for food, seed and manufactures, gives a total of 443,170,000 bushels of this season's crop provided for. As the crop was 457,218,000 bushels, it only leaves 14,048,000 bushels of this season's crop for export from March 1 to July 1 next. But to this must be added the carryover, 75,000,000 bushels, from the season of 1885-86, which gives a surplus of 89,000,000 bushels. Say that from this quantity we will require a carryover into the season of 1887-88, of 50,000,000 bushels, which is a very small stock, there will be only remaining for export 39,000,000 bushels from March 1 to July 1 next. As the United Kingdom draws her chief supplies, from February 1 to August 1, from this country, this small quantity will not go far. To better understand the situation the following is given. Deducting the stock held by and quantity afloat for the following nations, yet they will require to import from March 6 to harvest the following: United Kingdom, 69,313,000 bushels; France, 25,000,000; and other continental countries, 32,309,000. Total required by Europe, 126,622,000 bushels. This does not include the requirements of the West Indies, Brazil, China, etc. As the available supply for export in Russia is light, and India's crop is not more than average, as also the Australasian crop, the coming season will be entered throughout the world with a smaller stock than ever before known.

The local wheat market has ruled very strong throughout the week, with sellers of buyer season options on Call the principal buyers of sample parcels. There is no doubt but those running the wheat corner in this State and at the East are master hands at the business, and as they do not appear to be short of funds their ultimate success is well assured. Indeed it is credibly asserted that their profits already go into the millions, taking their operations here, at the East and in Europe as a whole.

Crop advices in this State continue favorable, although many sections complain of a want of rain.

Barley has ruled strong, with wide fluctuations throughout the week. The market appears to be under manipulation for a still higher range. The consumption continues to increase, making rapid inroads into the stock held here and in the interior. Several shipments of brewing grades were sent East the past week so as to take advantage of the low freights now ruling.

Oats are firm at a slight advance for all grades. The certainty of a heavy advance in overland freights on April 5, next, causes holders here to advance their views. The supply to come forward from Oregon and Washington Territory is light for the season. The demand is good.

Corn shows increased strength, with small dealers taking hold more freely under the belief that a sharp advance in prices is not at all unlikely in next month.

Feedstuffs.

Hay is without essential change. The demand continues good for choice grades, which are scarce, but poorer grades are in liberal offerings, necessitating concessions to close out consignments. This year's crop will fall considerably below last year's.

Owing to high cost of wheat, compelling many of the small flouring mills to shut down and the larger mills to run on half time, the supply of both bran and middlings has been materially reduced, creating a strong and higher market for both.

Fruits.

Apples are very slow, with a wide range in values running from 75c to $2 per box.

Oranges come to hand quite freely, but find a quick market at current quotations. The demand is both local and shipping up North. The warmer weather has stimulated the demand.

Limes and lemons are stronger, but no advance is reported.

Dried fruits are in light stock, causing a strong market to rule, with a slight advance reported in some. It is claimed that the supply here is barely enough to meet the home demand before next season.

Choice raisins are steady, but off grades are slow and hard to sell; even concessions do not tempt buyers beyond their trade wants.

Live-Stock.

Beef cattle and also mutton sheep are offering on the market more freely, but as yet sellers are not disposed to part with their holdings at a decline, except when compelled. It is claimed that grass-fed cattle will be on the market soon in larger numbers. The consumption of meats is light. Small calves are steadier. Lambs are strong, as are hogs. Milch cows continue in good request, with the more choice fetching good prices. In horses there is a continued good demand for general utility and also matched horses. It is claimed that a better inquiry for work horses will set in soon, for railroad building and other purposes.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 7@7½c; first grade, grass fed, 6½@7c per lb.; second grade, 5½@6c; third grade, 5@—c.

MUTTON—Ewes, 6¾@7c; wethers, 7½@8c.

LAMB—Spring, 12½@15c.

VEAL—Large, 5@7c; small, 5@8c.

PORK—Live hogs, 4¾@5½c for heavy and medium; hard dressed, 7½@8¾c per lb; light, 4½@5¾c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Miscellaneous.

The freight tariff to and from the East under the Interstate Commerce law will go into effect on April 5 next. The rate will be considerably higher than now ruling. This will affect the prices of such articles of the farm as are marketed at the East; but then wool, hides and similar products can be sent by sailing-vessel to the East.

Honey is in moderate supply, but the demand is slow at present quotations.

Beeswax is strong and in good demand.

More inquiry is reported for hops, with sales of choice made to brewers at 20 to 22½ cts per lb. Poor hops are placed with difficulty except at unsatisfactory prices to sellers.

Turkeys are in light receipt. Choice hens, broilers, roosters, ducks, and geese are in limited receipt and fetch good prices.

A further advance in hams, bacon, and lard is looked for at an early day in April.

Salt has been advanced $2.50 per ton.

Wool is dull, owing to the light stock to select from. It is claimed that the receipts of the spring clip will begin to come forward quite freely in next month. Buyers are talking prices down, owing to a reported depression at the East and expected higher overland freights in April next.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	211,165	182,451
In port, disengaged	109,679	58,000
In port, engaged	21,440	26,969
Totals	342,284	257,420

The above gives a carrying capacity as follows: 1887, 547,654 short tons; 1886, 411,872 short tons; increase over last year, 135,782.

Choice dried fruits are in lighter stock, with a slight advance obtainable, although not quoted higher. It is claimed that the supply is not equal to the consumptive demand up to the new season.

Choice raisins are steady and firm, but poor to fair grades are very slow and hard to sell.

Vegetables.

The high market for all kinds of potatoes has had its legitimate effect, viz., the drawing to us of heavy supplies from Oregon, and Utah and Washington Territories. The heavy receipts have depressed the market and reduced prices. The market to-day was somewhat demoralized.

New potatoes under light receipts and a good demand are strong.

Under freer receipts the market is weak at quotations for asparagus, green peas, rhubarb, and new cabbages. Old cabbages for shipping are in good demand at full prices. Tomatoes and cucumbers at the high prices are barely steady.

Onions are weak for all kinds, except very choice hard and sound, suitable to fill distant orders.

San Francisco, March 23, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 23, 1887

BEANS AND PEAS.			
Bayo, ctl	1 65	@	2 00
Butter	1 35	@	1 55
Pea	1 75	@	1 90
Red	1 25	@	1 50
Pink	1 25	@	1 45
Large White	1 75	@	1 90
Small White	1 75	@	1 95
Lima	1 75	@	2 25
Eld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	14	@	17½
do Fancy br'nds	18	@	20
Pickle roll	—	@	—
Firkin, new	15	@	16
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	10	@	12½
Eastern style	12½	@	13½
EGGS			
Cal., ranch, doz	16	@	17
do, store	13	@	14
Ducks	—	@	—
Oregon	—	@	—
Eastern	12	@	13½
Utah	—	@	—
FEED.			
Bran, ton	17 00	@	17 50
Cornmeal	23 00	@	24 00
Grd Barley ton	23 00	@	24 00
Hay	9 00	@	14 00
Middlings	23 00	@	24 50
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR			
Extra, City Mills	4 35	@	5 00
do Co'ntry Mills	3 90	@	4 50
Superfine	3 00	@	3 85
GRAIN, ETC			
Barley, feed, ctl	1 00	@	1 06½
do Brewing	1 05	@	1 15
Chevalier	1 45	@	1 60
do Coast	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White	1 00	@	1 07½
Yellow	1 00	@	1 05
Small Round	1 05	@	1 15
Nebraska	97½	@	1 02½
Oats, new	—	@	—
Choice feed	1 50	@	1 60
do good	1 45	@	1 47½
do fair	1 35	@	1 40
do black	1 40	@	—
do Oregon	1 35	@	1 65
Rye	1 10	@	1 25
Wheat milling.			
Gilt edged	1 67½	@	1 71½
do Choice	1 63½	@	1 65
do fair to good	1 60	@	—
Shipping choice	1 62½	@	1 66½
do good	1 57½	@	1 61½
do fair	1 55	@	—
HIDES.			
Dry	—	@	16
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4	@	4½
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Silverskin	1 50	@	2 50
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, hdshl	5	@	7
Soft shell	15	@	19
Paper shell	13	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	1 50	@	1 75
Early Rose	1 50	@	1 75
Cuffey Cove	1 60	@	1 80
Jersey Blues	1 75	@	—
Petaluma	—	@	—
Tomales	1 50	@	1 80
River reds	1 50	@	1 80
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 25	@	1 75
Peerless	1 60	@	1 80
Salt Lake	—	@	—
New Potatoes	3½	@	4½
POULTRY AND GAME			
Hens, doz	6 00	@	8 00
Roosters	5 50	@	10 00
Broilers	5 00	@	7 00
Ducks, tame	8 00	@	12 00
do Mallard	3 00	@	—
do Sprig	1 00	@	—
Geese, pair	2 00	@	2 25
do Goslings	2 50	@	3 00
Wild Gray, doz	75	@	1 50
Turkeys, lb	15	@	18
do Dressed	16	@	19
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	1 75
Venison	8	@	10
PROVISIONS.			
Cal. Bacon.			
Heavy, lb	9	@	10
Medium	9	@	10
Light	11	@	12½
Extra Light	13	@	13½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	11	@	11
do Eastern	14	@	15½
SEEDS.			
Alfalfa	9	@	—
Canary	3½	@	4
Clover red	12	@	13
White	17	@	18
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian Ryegrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	8
Mustard, white	3	@	3½
Brown	2 25	@	2 75
Rape	1	@	1½
Ky. Blue Grass	11	@	12
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW.			
Crude, lb	2	@	—
Refined	6	@	—
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	18	@	21
Sac'to valley	14	@	17
Free Mountain	17	@	18
N'hern defective	—	@	—
S Joaquin valley	10	@	13
do mountain	13	@	15
Cay'v & P'ch'l	13	@	15
Oregon Eastern	15	@	20
do valley	18	@	22
Southern Coast	9	@	13

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 23, 1887

Apples, bx com	75	@	1 25
do choice	1 50	@	2 00
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Cant-loupes, cr	—	@	—
Cherries blk	—	@	—
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	—	@	—
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 25	@	1 75
do Sicily, box	2 00	@	3 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	2 25
do Navels	2 50	@	4 50
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries ch	—	@	—
Strawberries ch	—	@	—
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	7
do evaporated	11	@	12½
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	9	@	11
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
Peaches, evaporated	16	@	18
do pared	18	@	20
do evaporated	20	@	30
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	10	@	13
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.

Artichokes doz	—	@	—
Asparagus ₩ lb	5	@	7
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	20	@	—
Pumpkins p'ton	—	@	—
Squash, Marrow fat, ton	10 00	@	12 00
do Summer bx	—	@	—
String beans lb	10	@	15
Tomatoes box	1 50	@	2 00
Turnips ctl	25	@	60
Strawberries ch	75	@	—
Beets, sk	75	@	—
Cabbage, 100 lbs	1 30	@	1 55
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, ₩ bx	12½	@	15
Garlic, lb	2	@	3½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, lb	4	@	7
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	12½	@	20
Rhubarb lb	3	@	10

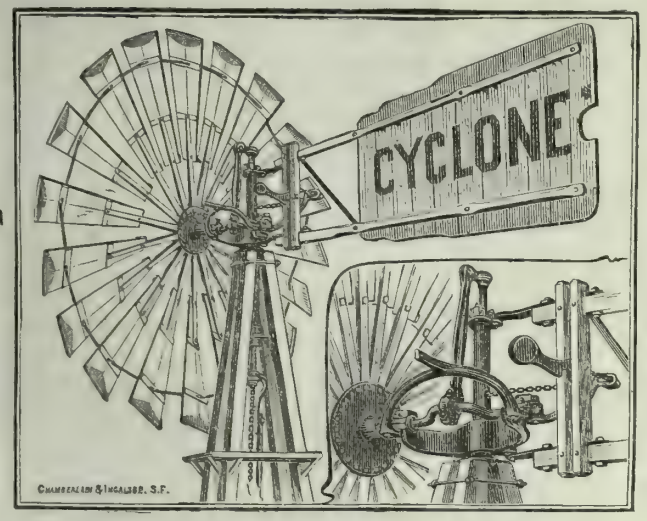
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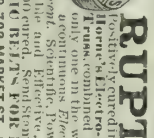
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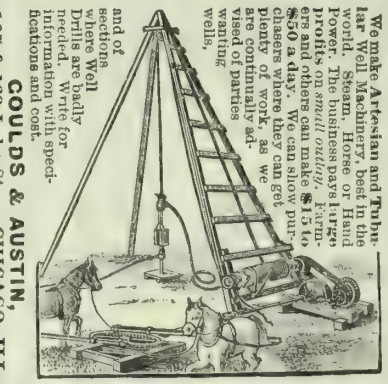
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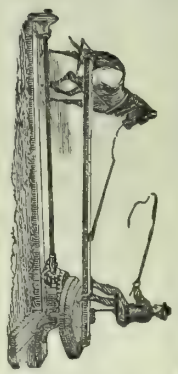
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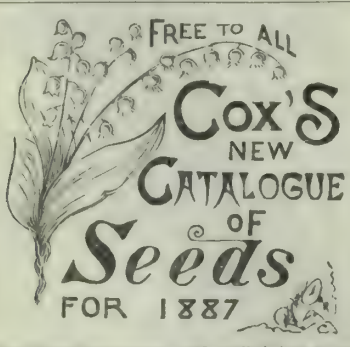
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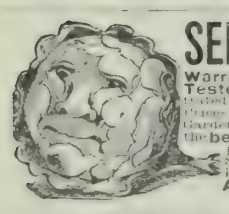
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E. C. CLOWES, Proprietor, Successor to W. B. WEST.
STOCKTON, CAL., October 27, 1886.

This is to certify that we the undersigned have this day thoroughly inspected the Stockton Nursery; that we found no Scale or indication of Scale, and that to the best of our knowledge and belief the Stockton Nursery is free of this dreaded pest.

WM. H. ROBINSON, Quarantine Guardian San Joaquin Fruit District.
JOS. HALE, County Commissioner of Horticulture.

WHITE SMYRNA FIG (Bulletin Smyrna), one, two and three years old.

WASHINGTON NAVEL ORANGE. Write for prices.

EVERYTHING THAT IS

NEW IN SEEDS



RARE IN PLANTS

is offered and described in our

CATALOGUE No. 446, which this year we send out in an illuminated cover. The Catalogue is replete with new engravings of the choicest flowers and vegetables, many of which can only be obtained from us; and contains, besides, 2 beautiful colored plates, and very full instructions on all garden work. Altogether it is the best ever offered by us, and, we believe, is the most complete publication of its kind ever issued. Mailed on receipt of 10 cents (in stamps), which may be deducted from first order. Please be sure to order Catalogue by the number.

PETER HENDERSON & CO. 35 & 37 Cortlandt St., NEW YORK.

GILL'S NURSERIES, Oakland, Cal.

WE NOW OFFER FOR SALE a large and complete stock of

FRUIT, SHADE and ORNAMENTAL TREES, SHRUBS and GREENHOUSE PLANTS,

Including Azaleas, specimen Araucarias Imbricata, Camellias and Rhododendrons, Roses and Pinks. Our Specialties, for which this place has long been noted: Seedlings; Cypress and Laurustinus, all sizes, for hedging; 50,000 Blue and Red Gums transplanted in boxes. We invite inspection of our stock. Send for Descriptive Catalogue. Address, E. GILL, 28th St., bet. Adeline and Market, near San Pablo Avenue, OAKLAND, CAL. ☞San Pablo Avenue Cable Cars pass close to the Nurseries.



THE BLYMYER IRON WORKS CO.
CINCINNATI, O.
SOLE MAKERS OF THE VICTOR, NILES & OLIVER WESTERN MILLS & GENUINE COOK EVAPORATOR
THE SORGHUM HAND BOOK FOR 1887 CONCERNING THE CULTURE OF SORGHUM AND ITS MANUFACTURE INTO SYRUP & SUGAR SENT FREE ON APPLICATION.

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Fruit Engravings, The finest, best and cheapest Photographs and Engravings of Fruits, Vegetables, Houses, Farms, Landscapes, etc., made by S. F. PHOTOGRAVURE CO., 659 Clay St., S. F.

BEET AND CARROT SEED.

Just arrived from France, a large invoice of fresh and reliable BEET and CARROT SEED.

Long Red, Mammoth Long Red, and Yellow Globe Mangel Wurzel, Yellow Ovid and Vilmoren's Improved White Sugar Beet Seed; Long White Belgian and Long Orange Carrot Seed.

Also in stock, California grown Seed of the above varieties. For sale at the

Geo. F. Silvester Seed Store,

SAMUEL BRECK, Proprietor,
317 Washington St., San Francisco, Cal.



EVERGREEN TREES, HARDY SHRUBS,

Flowering Plants, Bulbs, Seeds, Etc.

WHOLESALE AND RETAIL.

Nine large Greenhouses well stocked with desirable, healthy plants. 1000 Camellia Japonicas, Hardy Fan Palms, Daphnes, Navel Oranges, Magnolias, Araucarias, Roses, Fuchsias, Pinks, Heliotropes, Daises, Pansies, etc., in endless variety.

BLUE and RED GUMS, PINES, Etc.,

For Forest Planting, in large quantities. CYPRESS for Hedges in fine order, at bedrock prices.

☞Established in 1852. Send for Catalogue.

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Lombard Street, between Baker and Lyon, San Francisco.

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100,000 BLACKBERRIES, LAWSON and KITTITANY and others, $10 per 1000.

Also a large stock of Monterey Cypress, Monterey Pine, Blackwood Acacias, Peppertrees and other desirable Evergreen Fruit and Shade Trees.

For the Gardens I offer Roses in the best and newest varieties, Pink, Camellias, Azaleas, Rhododendrons, Araucarias, Diosmas, Laurustun and other varieties at low prices. F. LUDEMAN.

GRAPE SEED!

FINE, FRESH AND CLEAN.

I have for sale seed of **Vitas Californica**, proof against Phylloxera, which I will send at $1 per pound for 5 pounds or more, or $1.50 per pound for less than 5 pounds.

Vitas Californica Cuttings, $8 per 1000.

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Fine Small Fruits a Specialty

CUTHBERT RASPBERRY.



BEST MARKET BERRY KNOWN! Large Firm and Luscious, stands travel finely, bears immensely, and has two crops a year; 75 cents per dozen; $3 per 100. Also Strawberries, Blackberries, Gooseberries, Currants, etc., of finest imported varieties. Prices on application.

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Apricot, Plum, Prune and Peach on Myrobolan Plum stocks. Bartlett, Winter Nelis, B. Clairgeau, B. Hardy and other varieties, 1 and 2 years. A full stock of 1 and 2-year-old Apple Trees, Peach on Peach, Nectarine Quince, Fig, Grape, Currants, Gooseberries, Almonds, Walnuts, Chestnuts, etc. Prices reasonably low. No scale bug. Also Myrobolan Plum and Pear Seedlings, home grown. Address W. H. PEPPER, Petaluma, Cal.

J. N. KNOWLES, Manager. EDWIN L. GRIFFITH, Secretary.

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Manufacturers of

INSECTICIDE!

FOR ERADICATING AND DESTROYING ALL PESTS THAT INFEST FRUIT TREES AND PLANTS, SUCH AS

SCALE BUG, HARVEST FLIES, TREE HOPPERS, PLANT LICE, Etc.

It has been fully tested by the Agricultural Department of the State University, and pronounced a success, the endorsement of which we append. It is put up in convenient forms for use both in liquid and paste state.

For Sale in Barrels and 2 and 5-pound Cans in paste form, and in Barrels and 5-gallon Cans in liquid form.

Copy of Letter Received from the University of California, College of Agriculture, Berkeley, dated December 4, 1886.

J. N. KNOWLES, Esq., Manager Arctic Oil Works, San Francisco—DEAR SIR: We have lately tested the Insecticide preparation of Whale-Oil Soap sent by you to us, and have found it to be very effectual against the Scale infesting Orange and Bay Trees here; also against the Thrips. From our previous experience with a similar composition, I think it will be found fully effectual against any small Insect Pests not specially protected like some of the armored Scales, and against which any Wash short of strong lye cannot be used. Respectfully,

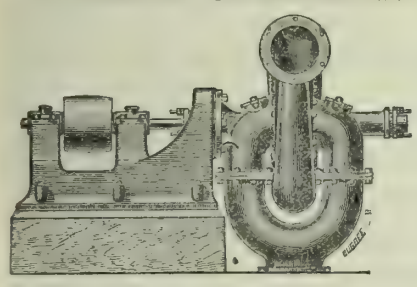
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OFFICE, 28 California St., San Francisco, Cal.

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IRRIGATING PUMPS.

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Consisting of Wood and Iron Working Machinery. Pumps of every description.

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CANTATAS FOR FLOWER TIME!

Teachers of Juvenile Singing Classes do not need to be told of the intense interest and enthusiasm which attends the bringing out of a new CANTATA. The following are new, bright, pretty and easily given. Commence in time to prepare them.

VOICES OF NATURE; operetta; N. B. Sargent.

FOREST JUBILEE BAND; N. B. Sargent.

NEW FLORA'S FESTIVAL; Bradbury. Arranged by J. C. Johnson.

MERRY COMPANY, or Cadets' Picnic; Collin Coe.

Price of each book, 40 cents, or $3.60 per dozen.

The first two books are by a nature and music-lover, who fills them with very sweet songs of birds, flowers, insects, etc. Flora's Festival, doubled in size, and with minute directions, will surely be a success, as will, in another way, the "MERRY COMPANY."

Our new edition of **VOICES OF PRAISE** (40 cts., or $4.20 per doz.), by Rev. C. L. Hutchins, is cordially commended to all who wish a **Sunday School Song Book** of the highest character.

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STOCKTON COMBINED HARVESTER & AG'L WORKS

Stockton, Cal.

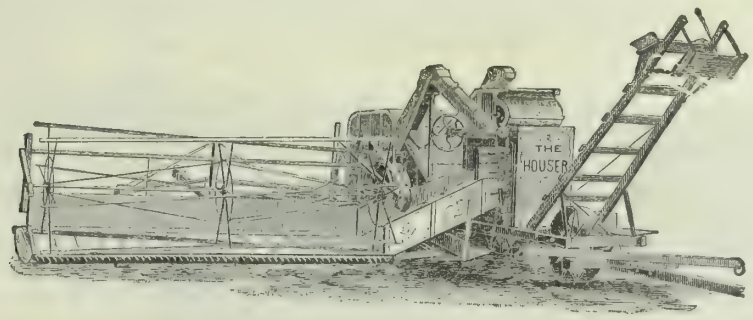
The only Manufactory that makes a Specialty of Building

COMBINED HARVESTERS.

PULL and PUSH, BELT and GEARED.

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THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.

THE BEST KNOWN AND MOST POPULAR.

300 in Field Use and No Failures.

NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

PRESCOTT HOUSE.



S. W. Corner Kearny and Montgomery Avenue, San Francisco.

☞Free Coach to and from the House J. W. BECKER, Proprietor.

ORANGE CULTURE A practical treatise by T. A. GAREY, giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F.

THE DOG In health, habits and disease. All breeds and treatment; 50 cuts; 25c. This office.

NEW Sample Book of beautiful cards, 14 Games, 12 tricks in magic, 436 Album verses. All for a 2c. stamp. STAR CARD CO., Station 16, Ohio.

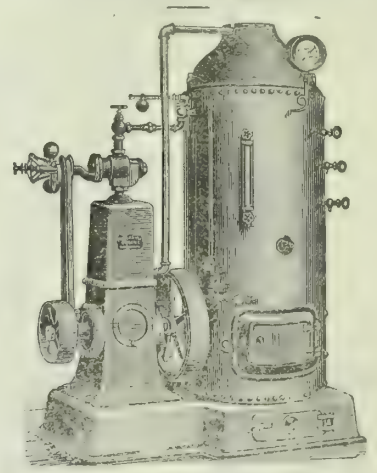
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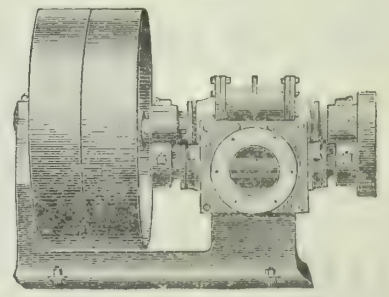
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Of Every Description.



"CASTLE" ENGINE AND BOILER

(Combined).



WILBRAHAM ROTARY PISTON PUMP.

Hydraulic Mining, Quartz and Saw-Mill Machinery.

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"Cummer" Engines, from Cleveland, Ohio.
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227 & 229 Wabash Avenue, Chicago, Ill.

APPLEGATE'S

Cold Water Bleaching Soap

Was Awarded the First Premium at the State Fair at Sacramento, for the year 1886, UPON ACTUAL MERIT.

It can be used in Bath, Toilet or Laundry, and dispenses with Fuel, as no Warm Water or Boiling is Necessary. Beware of Cheap Imitations.

The Genuine is manufactured only by

J. J. APPLEGATE,

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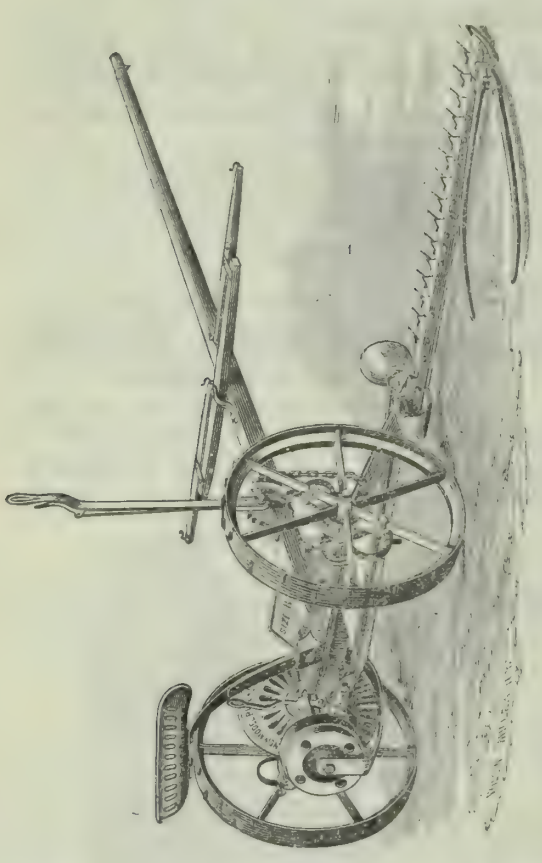
ADRIANCE "BUCKEYE" MOWERS.

MAKE SURE THAT YOU BUY THE BEST MOWER MANUFACTURED.

One that will Outwear two of any other make of Machine.

One that is very Simply Constructed and the Lightest Draft.

One that will do Better Work than any other Mower made.



SOME OF THE REASONS why the Farmers prefer the ADRIANCE BUCKEYE to all other Mowers:

It is the **most simp e.**
Contains **fewer parts.**
Is the best braced and strongest.
Has fewer and better bearings.
A less number of places for oiling.
All its parts are in sight and easily understood and kept in order by the ordinary farm hand.
It is built on correct mechanical principles.
Has the only perfect double-jointed Finger Bar, which adapts itself to every variety of surface.
There is no downward pressure on the Finger Bar, but a lifting tendency when coming out of a ditch or furrow.
The Knives have a truer and more uniform throw through the Guard Fingers.
Has the most perfect cutting apparatus.
No loose connections or knuckle-joints.
Cuts a swath the full length of the Cutter Bar without driving the off-horse in the standing grass.
It is perfectly adjustable to any work.
All its weight is utilized for power.
The horses draw directly from the axle, and no weight comes on their necks.
It is the **lightest draft.**
It is perfectly balanced.
Easiest to operate.
Excels all others in portability.
The Cutter Bar holds firmly, and flat across the frame.
The most comfortable and the **safest** for the driver.
Only the best material and workmanship are used in its construction.
It requires **fewer repairs.**
Extra parts are more easily obtained.
It has the **longest and best record.**
Its average life is double that of others.

The Majority of the Farmers use it Wherever Sold.

SEND FOR SPECIAL "BUCKEYE" DESCRIPTIVE PAMPHLET WITH REDUCED PRICES FOR 1887.

Hodges' Haines' and Hodges' Case Headers, the Rice Straw-Burning Engines, Gold Medal Separators, Perkins' Wind-Mills, Etc.

Sole Agents for THE "SCHUTTLER" FARM WAGONS, "TAYLOR" and "RELIABLE" SULKY RAKE.

HAWLEY BROTHERS HARDWARE COMPANY, San Francisco, Cal.

BEST & DRIVER'S IMPROVED COMBINED HARVESTER for 1887

Manufactured at the

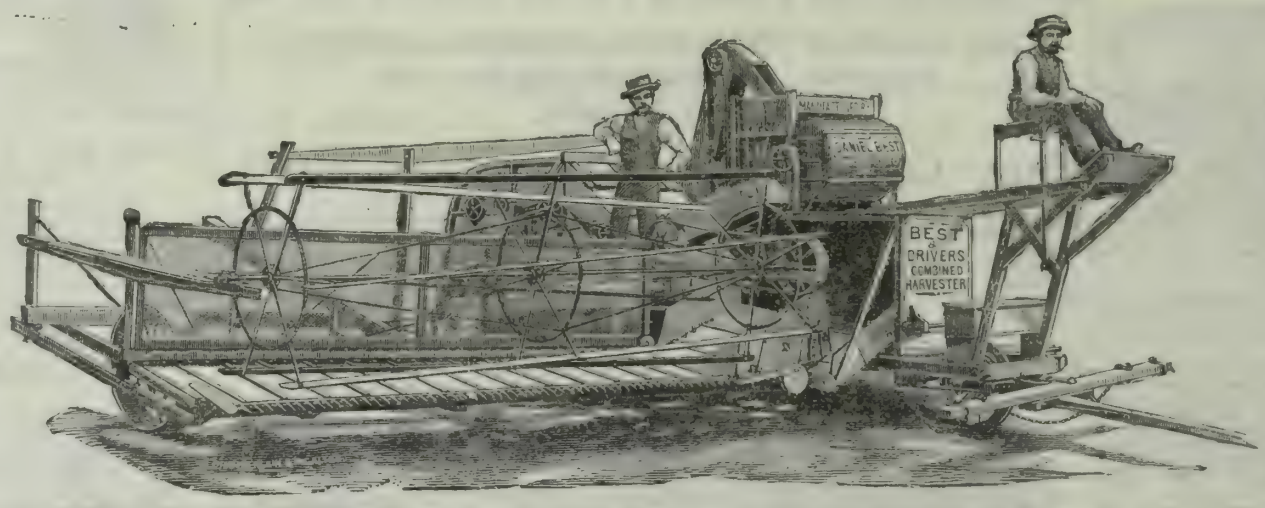
DANIEL BEST AGRICULTURAL WORKS, San Leandro, Cal.

STANDARD SIZE

—IS—

14 Feet.

Will make any size that is ordered.



Belt

—AND—

Geared.

The BEST & DRIVER IMPROVED Combined Harvester, without doubt, will be the Leading Machine this season, is the verdict of all those who have inspected it.

IT HAS VALUABLE IMPROVEMENTS THAT ARE NOT FOUND IN ANY OTHER COMBINED HARVESTER MANUFACTURED. SPACE WILL NOT ALLOW US TO ENUMERATE HERE; AN INSPECTION OF THE MACHINE WILL CONVINCE YOU.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouole to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same. Making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvestin expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** ttached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field. The Lumber is thoroughly kiln dried that we use in the construction of our Harvesters, so that they will not fall to pieces under a hot sun.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

IMPROVED GRAIN CLEANERS, and MILLS.

I desire to call your attention to my latest Improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly cl an the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner mounted on Harvesters, that will thoroughly clean foul grain, and make it merchantable.

Write for Circulars. For further information, prices, etc., address

DANIEL BEST, San Leandro, Alameda Co., Cal.

PACIFIC RURAL PRESS

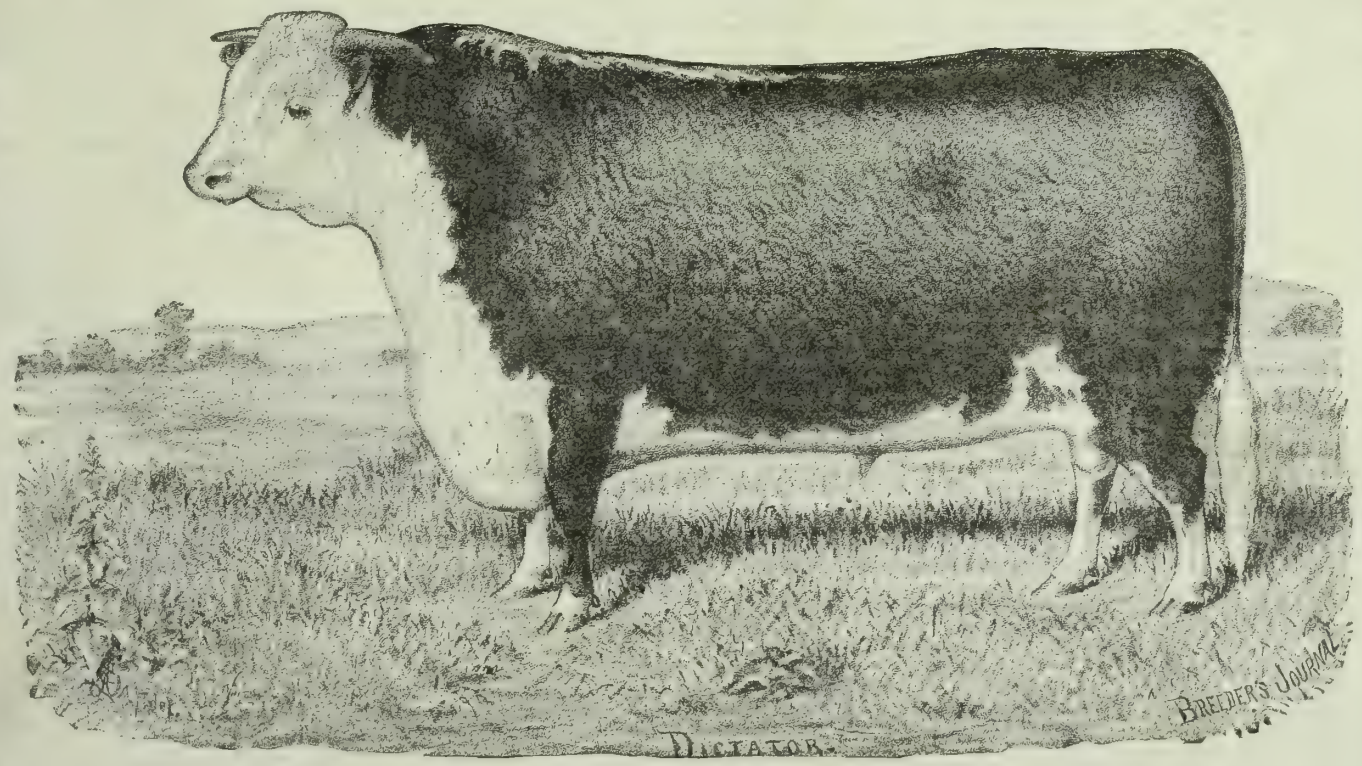
TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 14.] SAN FRANCISCO, SATURDAY, APRIL 2, 1887. [$3 a Year, in Advance. SINGLE COPIES, 10 CTS.

Herefords for California.

Mr. Albert Gallatin, some three or four years since, made a purchase of a few head of thoroughbred Hereford cattle for his ranch in Tehama county. The past summer he made another purchase of fine bulls from the Messrs. Miller, of Beecher, Ill. He has made careful note of these purchases and their produce, and has become so well satisfied with their merits for beef purposes in California, that he has made another and more important purchase from the same parties, of 22 thoroughbred Hereford heifers and two bulls, making with this and former purchases one of the finest, if not the finest, herd of thoroughbred Hereford cattle on the Pacific Coast.

Cattle of this breed are noted for their grazing qualities and for the fine character and quality of their meat from grass. Hereford breeders claim that in these particulars their cattle excel all other beef breeds. These characteristics are not newly claimed, but the breed has had this reputation as a breed for more than 100 years in England, as being capable of making the largest gains from grass of any of the breeds, and of going from grass to the top of the market at Smithfield, London, Eng., during a century past. The claim is that other prominent breeds of beef cattle to reach this position are obliged to be stall-fed for from four to six months.



THOROUGHBRED HEREFORD BULL DICTATOR.

California will make the most favorable home for this breed of cattle, with its climate of continuous summer, insuring continual growth and early maturity upon the mountain grasses during early spring and summer, and finishing on the alfalfa fields in the fall and winter. Being, as thus shown, pre-eminently a grass breed, they are specially fitted for the Pacific Slope. Mr. Gallatin has studied these questions, and has chosen the Herefords as likely to give the best results to be obtained from the soil of such portions of his property as he desires to devote to grazing.

The last purchase of Mr. G. is from one of the oldest herds in the States, which owes its excellencies to the selection of the best lines of blood existing in England or America. The leading sires that have been used are as follows: Sir Charles, No. 543; Success, No. 2, whose portrait was given in the RURAL some years ago; Winter de Cote, No. 2977, and Ivington Wilton, No. 4056. The portrait upon this page is of the bull Dictator 2d, several of whose progeny are now in Mr. Gallatin's herd, as will be seen by the list below.

The following is a short sketch of the breeding of the animals included in the late purchase, and which is the occasion of this notice:

Alexander, No. 2480, by Dictator 2d, No. 6505; Sir David, No. 2481, by Success, No. 2; Lovely Clover, 13028, by Ivington Wilton, No. 4086; Miss Dauphin, 20,291, by Dauphin 18th, No. 3368; Lady Edwards, 28,232, by Doctor Edwards, No. 6477; Vesper 2d, 24,966, by Hermit, No. 7293; Clover Cherry 2d, 25,249, by Ivington Wilton, No. 4056; Lucky 2d, 25,250, by Ivington Wilton, 4056; Lucile, 27,121, by Hermit, 7293; Miss Maude, 24,963, by Ivington Wilton, 4056; Bess Bedford, 27,132, by Frederick, 7398; Cruik 3d, by Doctor Edwards, 6477; Graceful, 24,815, by Dictator 2d, 6505; Lady Graceful, 24,812, by Dictator 2d, 6505; Jessie Maxwell, 26,356, by Highland Chief, 7275; Lady Bess, 13,041, by Ivington Wilton, 4056; Penelope, 24,960, by Hermit, 7293; Minerva, 24 961, by Hermit, 7293; Wilton Maid, 24,964, by Ivington Wilton, 4056; Susie, 13,803, by Winter de Cote, 2977; Dolly Varden 5th, 16,300, by Winter de Cote, 2977; Highland Queen 4th, 20,068, by Winter de Cote, 2977; Leone Miller 2d, 20,071, by Dictator 2d, 6505; Patience Edwards, 24,871, by Winter de Cote, 2977.

This is certainly a fine lot of animals, and we are glad to make prominent their arrival in California. Mr. Gallatin is doing much for the advance of our live-stock interests by securing such blood in abundance, and we trust may find his investment profitable. His idea in the development of his fine property in Tehama county is an enterprising one. He desires to demonstrate its fitness, and indirectly the fitness of the State at large, for a wide diversity of agricultural productions, believing that such a course of farm policy in California will be both the safest and at the same time result in advancing general wealth and prosperity as can be done in no other way. We shall be glad to note at some future time other ways in which Mr. Gallatin is moving forward to prove the truth and practicability of his policy of farm management.

THE Board of Trustees who are on a site-selecting tour for the branch Normal School, are at Red Bluff. The competing towns have done their best to show off the advantages they possess for such an educational institution.

Lumber Notes.

FROM all indications the coming season will be a busy one for carpenters and builders. Already the sound of the hammer and saw is heard in the outlying portions of the city, and when lumber stocks become heavier and prices become less stiff, there will be a rush of work in the building line. In anticipation of these lively times the sash and doormakers are working up large lots of their lumber stock, which will, no doubt, all be off their hands before the middle of the season.

A WINDFALL (redwood) lies near the Bohemian park at Camp Meeker, on Russian river, that will measure over 22 feet inside of the sap and bark; and they often grow over 350 feet high, and would make nearly 100,000 feet of sawed lumber. One tree less than 11 feet on the stump made 53,000 feet, 37,000 feet of it being clear lumber, and all sold for $1350.

A LOG 32 feet in length was placed on the carriage in a Puget-sound mill recently, and when half of it was sawed up there were 38 boards four feet wide, aggregating 3600 feet of lumber. The other half of the log was sawed into smaller planks, but the whole footed up 6400 feet of lumber from one spruce log without a knot.

THE Visalia *Delta* says that Smith Comstock, whose mill is in the Sierra, will cut 4,000,000 feet of lumber this season. He has already sold the cut to the San Joaquin Lumber Co., the greater part of which will be delivered in Visalia.

ONE firm at Los Angeles, recently, had seven schooners unloading lumber at San Pedro, on board of which were 2,100,000 feet of lumber. The enormous amount of building going on in that region makes the lumber business lively.

HURON, Fresno county, is to sink an artesian well to a depth of 1000 feet.

Moving for Irrigation.

One of the best possible proofs of the wisdom and practicability of the irrigation work done by the last Legislature is the alacrity which the people show to co-operate and thus secure the benefits of the enactments. The Wright bill, which we have published in full, seems certainly to suit the public needs, at least so far as preliminary steps in formation of irrigation enterprises are concerned, and this is the object for which it was devised. "The most representative meeting ever held in Placer" took place in Auburn on March 19th to consider the subject of irrigation. Nearly 200 leading men were present. The sessions began early in the morning and continued all day. A stirring address was delivered by J. P. Whitney, who was chosen chairman, in which he said: "It appears desirable that a careful and conservative view of the situation should be taken, and that we should seek out and satisfy ourselves, as well as we can, what is our source of supply, and how we can best avail ourselves of it."

This advice to Placer county people with reference to the Wright law has general application to California people and should incite them to act quickly and enterprisingly. The meeting at Auburn evidently profited by the chairman's advice, for they at once appointed a general committee of 20, with power to appoint a sub-committee, with these instructions:

Resolved, That it be the sense of this meeting that the sub-committee appointed by this meeting be required to investigate thoroughly the sources of water available for possible public purposes, and the probable amount of land in Placer county subject to or available for irrigation; also the sources and amount of water available but now controlled by persons, companies, or corporations, and the offers or inducements any or all of said persons, companies, or corporations are prepared to offer toward supplying the said available irrigable land in Placer county with water, and such other information as they may deem advisable.

Resolved, That it be the sense of this meeting that the said sub-committee be allowed their actual expenses and two dollars a day for the time necessarily employed in making the said required investigation.

The sub-committee was well chosen as follows: P. W. Butler, G. D. Kellogg and L. F. Warner, with W. B. Hayford as alternate.

This shows how to go to work in the public interest under the Wright law. An important consideration, however, is the collection of funds. The Auburn meeting collected over $200 in a few minutes, starting well, however, with $100 from Chairman Whitney.

The meeting warmly approved the injunction-dissolution law, which can be found in full on page 301 of this issue.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

From the Ranges of Southern Humboldt.

EDITORS PRESS:—Enough time has elapsed since the heavy snowstorms of February to get a pretty reliable account of the real damage sustained by Southern Humboldt, and it turns out that the real is not nearly so bad as the imaginary. In fact, it cannot be said that most of the ranges suffered any, for nearly all of them have low ground that was not covered by the snow. Only the very high ranges were entirely covered, and on them the losses were much less than was anticipated. This winter has been a very good test of the value of this section for stock. At the time stock were suffering for feed in Central and Southern California, because there had been no rain to start it, we had plenty of grass—and for almost four months, too. And now, where not stocked too heavily, the grass is from 6 to 12 inches high. We can also show grain, sown in December, 14 to 16 inches high. We never fear a drouth, neither cold weather.

A glance at a map which shows Eel river and its tributaries will give the key to our safety even in a snowy winter like the past. Our ranges, for the most part, run from the backbone between these streams, down to the streams themselves, giving each of us considerable low range, with elevation from 500 to 1500 feet, upon which snow falls, and when it does only remains a few hours. These slopes are very productive, furnishing a large amount of fuel.

The grass starts with the first rains, which usually fall about the last of September or first of October. Among the first to start are wild oats, filaree or alfilarilla, and the by-some-people-much-despised foxtail. This last is one of the best winter grasses, growing faster in cold weather and starting earlier than most of the wild grasses. It is very nutritious as long as it is green, but is a poor dry feed. But in summer, stock never suffers in this country, as there is plenty of feed to the very top of the highest mountains. Besides, we shear our sheep before the foxtail gets dry, so on the whole we suffer nothing from it, but are benefited much. We also have six or eight varieties of clover, wild rye-grass, and, on the high ranges, bunch-grass.

If there is any better place for stock in the State we have not seen it, nor have we seen the man who has. Most of us have a fine crop of lambs, though some missed it, being in the midst of lambing when the snowstorm came; hence, many that were dropped in the storm were lost, but we doubt if any that ever suckled the ewe were killed by the snow. What may seem a little strange, hardly any two ranchmen think alike about the best time for lambs to come, and the consequence is, you may see them coming all the way from December to May. Most of them, however, are dropped in the months of February and March.

The weather is very fine now, reminding one of June in some of the Eastern States. Our fruit trees are in full bloom, while on the high mountains, a few miles away, old winter still holds the fort, and with his snowy mantle seems to bid stern defiance to summer's jaunty green jacket on the slopes below.

Was there ever a country so much boasted over as this California of ours? Ay! and is there another that so well deserves it? No wonder that many of the shivering people from east of the Rockies are flocking to this summer land. If they could only realize that "north" in California is not a synonym of cold, then this part of the State might receive its share of attention from home-seekers.

We have no sand and sagebrush that must have a water ditch to reclaim it; but instead, we can offer them land that by reason of bountiful rain has always in sight proof of *its* fertility. RANCHER.

Blocksburgh, Cal., March 20, 1887.

A Voice from Contra Costa.

EDITORS PRESS:—We of Contra Costa county have lately waked up to the fact that we are being neglected. While hosts of Eastern tourists are pouring into the southern counties, and the tide of immigration is setting thither, no one ever seems to think of looking in upon us. Almost within sight and sound of San Francisco, with a climate and a soil unsurpassed by any in the State, we are quietly ignored, and the stranger in search of a home remains unconscious of our very existence. Do you wonder that, considering these things, our soul is stirred within us? Within the last month there has been a grand uprising. The county papers have come to the rescue. They have called upon the people to assert themselves, and there has been a very general response.

A board of trade has been organized, meetings have been held, we have resolved ourselves into a mutual admiration society, and the outside world is challenged to pause, to look and see and judge for itself if we, too, have not something to be proud of.

In a county of such extent as Contra Costa, covering 470 square miles, and varying in altitude from the sea level at Martinez to the summit of Mt. Diablo, at an elevation of 4000 feet, there must necessarily be a wide range of temperature and of agricultural products. To discuss the merits and set forth the attractions of the entire county is beyond my province. I must content myself with calling the attention of your readers—some of them, it may be, intending immigrants—to the beautiful valley in which my lot is cast.

The Valley of the San Ramon.

The village of Walnut Creek, which lies at its northern end, is easily reached from San Francisco, a daily stage leaving Oakland in the forenoon and bringing the visitor over 17 miles of an excellent mountain road, where at every turn some new beauty breaks upon the eye. The drive from Martinez, where another stage-line connects with the morning train of the Central Pacific from San Francisco, is shorter, but less picturesque. Arriving by either route, the stranger can scarcely fail to be charmed by the beautiful situation of the little village. It lies half hidden among the trees, with the hills gradually sloping upward on every side, fertile fields, thriving young orchards and vineyards, meeting the glance in every direction, while at a little distance rise the steeper summits of the Coast Range, and still beyond Mt. Diablo towers up majestically against the sky, a thing of beauty and a joy forever to any one with an eye for Nature's glorious works.

The two streams which unite at the village (Walnut creek and the San Ramon) can be traced all along their winding way through the neighboring fields by the oaks, sycamores and willows which fringe their banks and are now rapidly bursting into leaf.

Following the county road in a southerly direction through the valley, I am attempting to describe the hills draw nearer together on either side until there is but a narrow strip of level land on the right hand and on the left; but a little farther on the valley widens again, the hills recede and gradually lose their steepness, the natural growth of forest trees disappears, and all along the rolling slopes one can trace the lines of the young fruit trees in the newly planted orchards and the rows of cuttings in the vineyards. Only a short time since there was nothing raised but hay and grain on all these ranches round about. Now there are acres upon acres of fruit trees and vines, and every year is adding to their number.

For the great charm of this region is that irrigation is a thing unknown. There is always rain enough to make some return to the farmer for his labor, even when some other portions of the State are suffering from drouth, and neither in nursery nor in orchard is it ever found necessary to supply the trees with water. All the fruits of the temperate zone grow with us in perfection—cherries and plums, apples and pears, peaches and figs as fine as one can wish to see; grapes in endless variety, almonds, a most profitable crop; and to the list we hope soon to add, with Mr. Gillet's help, walnuts of the improved varieties.

But we are not in the true "citrus belt." If one wishes to engage in orange culture, he must go elsewhere. I say this although there lies on the mantelpiece before me a ripe orange grown in a sheltered nook among the hills not two miles distant. Such favored spots may be found here and there, and at Martinez, 12 miles away, there are orange and lemon trees loaded with fruit, the waters of the bay tempering the winter atmosphere.

But in our valley we are not semi-tropical, and some of us are glad of it. We like the touch of the frost-king coming now and then through the winter months, which otherwise we might forget to call by their right names, so soft and balmy is the air in general, so warm and bright the sunshine. We think we are all the better for his flying visits, and we fancy they are the cause of the wonderful healthfulness of the neighborhood, where no epidemic disease has ever been known to gain a foothold.

We like, too, our nearness to the Bay of San Francisco. When occasionally, in the summertime, the sun glows with a too fervid heat, and the mercury climbs up to 100 and even higher, we turn our eyes longingly in the direction of the city. And always after a few days we catch a glimpse of a low, cloudlike bank lying beyond the distant hills. Gradually it is lifted higher and seems to be driven rapidly along the horizon. It does not reach us, the sunshine is never dimmed, but we feel the breath of a cool, refreshing breeze, down goes the thermometer, we close the doors and windows, put an extra blanket on the bed, and go to sleep with grateful thoughts of "the San Francisco fog."

Taken all the year round, summer and winter, we think the climate as near perfection as is possible, with just enough variety and no great extremes. It is thoroughly comfortable and enjoyable. And as for the soil, the most inexperienced eye has only to see it as it is turned over by the plow to be convinced that it is "as good as the best."

At this date (March 17th) the peach trees, apricots and quinces are in full bloom, and the bees are busy in their branches all the day; the almonds have shed their blossoms and the young nuts are the size of peas, though they were late this year from the long delay of the rain.

I am not a real estate agent, and I have no axe to grind, but if any one asks, "Is there land for sale on reasonable terms in this happy valley?" my answer is that given me 10 years ago by a friend to whom I was lamenting the narrowness of our own portion: "There is always land to be had when you have the money." And I may add that prices are not exorbitant compared with those in other sections.

The high range of hills between us and Oakland has isolated us long enough. When we have a direct line of railroad, which we confidently expect, there is little doubt that the land in our beautiful valley will be eagerly sought for country homes, and those who are wise enough to secure them now will then have cause to congratulate themselves. I. H.

Walnut Creek.

San Diego Notes.

EDITORS PRESS:—The Coronado Beach Co. afforded all visitors to Los Angeles the opportunity of making an excursion to San Diego at a nominal expense, and I availed myself of it. We were landed in San Diego about 8 o'clock P. M. on March 3d. An agent passed through the train and apportioned us off—so many to each hotel—and we were thus comfortably provided for without a jam, as is usual with excursion parties of this size, as we numbered about 750 in all. It does great credit to San Diegoans' managerial ability to take care of so many extra, with the naturally large transient travel now rolling in upon them. Our excursion tickets included a trip across San Diego bay and a ride on their railroad across the peninsula, and, truly, they have the most beautiful location in the world, we might say, for their beach is certainly unsurpassed anywhere on this coast. They have the whole peninsula laid out in town lots and a great many have been sold, and they are now busy grading for an immense hotel building. This will, without a doubt, be completed the coming season, and they will then be prepared to accommodate tourists in fine style.

Many Eastern people have here purchased lots and are now erecting cottages so as to have a place to migrate to in the cold winter months.

San Diego bay, as a safe harbor, is second to none on the Pacific Coast, as it is completely land locked, and with the opportunities that will be afforded soon for transcontinental shipping, will no doubt make it a shipping point of no little importance.

Within a few miles of San Diego are a number of very fruitful valleys, where oranges are produced in abundance, and they are really very fine, and the capitalists of the town are making every effort possible to get all the available water together and utilize it, in making their mesa land productive, as water is literally the one thing needful to make this a land flowing with milk and honey.

The most abundant production at present is certainly town lots, and real estate agents for miles on each point of the compass from the town proper have tracts laid out in lots, varying in size from 25 feet front to 5 and 10-acre plots, all sizes and shapes, to suit the size of each man's purse. Our old-time Californian is nothing if he is not speculative, and he is here in force buying on margins, shorting the market whenever he can get a pointer.

San Diego has taken a fine start. Men of means and energy have taken hold and are pushing it to their utmost. It is now literally the coast terminus of the Atchison, Topeka & Santa Fe road, and the Southern Pacific will have a line running in within six months. There seems not the slightest doubt of building up a city of 15,000 or 20,000 people. They now claim 12,000, but that is probably too many; but as they are now at work on a census, the number will be accurately determined ere long.

There is also a prosperous mining district tributary to San Diego. The Julien mines are some 60 miles distant, but get all their supplies through San Diego.

There is a fine street-car line running from the depot up through town and out to Twenty-sixth street. There is also a motor line building between there and National City. All these improvements have been made in the past year. A number of fine, large brick blocks have been built, three, four and five stories in hight. All these show the solidity of the men who are pushing the interests of the town.

The tone of my letter might indicate that I have corner lots to dispose of, but I have not a foot, and am only sorry I have none; but there are ample for all who wish without my going into the business. R. G. H.

San Diego.

Morning-Glory Once More.

EDITORS PRESS:—I see that the morning-glory still comes in for a share of the attention of your readers; and as a "fellow-feeling makes us wondrous kind," I feel like making a little addition to what I reported some months ago of a fortunate riddance of a 12-year-old glory patch. After much pulling, digging and salting, all efforts to kill it had ceased for several years, when a grasshopper invasion struck it in full growth and vigor, and in four days left not a vestige of it above ground. It did not show a sign of life till late the next spring, and then only a few straggling vines, which with their lessening successors were soon dispatched with a hoe, till now, nearly three years after, there is no sign of it above ground. Remembering the report of some one who had made a success of hoeing it off, two inches under ground, as often as seen, reminds me that that was the only remedy I ever found for Canada thistle "back in the States," and I incline to the opinion that such shutting off of sun and air will kill any root. M. W.

Paskenta, March 18.

ENTOMOLOGICAL.

Spring and Summer Remedies Against the Codlin Moth.

[*Bulletin No. 6, State Board of Horticulture.*]

It is needless to write at length about the ravages of the codlin moth, and of the importance of finding a thorough remedy against the pest. In a paper read before the Fruit-Growers' Convention, held in November last, I expressed the belief that spraying with arseniates were the most promising of anything yet tried for this purpose. I also maintained that while the remedy, doubtless, would prove efficacious, killing the codlin larva if used often enough, it would be a little premature to recommend it as *the remedy*, because of the very poisonous nature of the compounds, and that we needed a thorough trial to settle definitely the all-important question if either of the arseniates would be of any danger to the consumer of fruits so protected. Since expressing this, I have been in active correspondence with the State Entomologist of Illinois, Prof. S. A. Forbes, and I feel happy to state that his thorough experiments, although made on a comparatively small scale, have proved to my mind that in the climate of the Eastern States, the arseniates can be made a decided success by proper application, thereby saving two-thirds of an apple crop, and that there is no danger in using either of them in that climate, that is, if used in season. The Bulletin, No. 1, of Professor Forbes, was kindly sent to me, and I have freely quoted from it in the following. Professor Forbes has reached the following conclusions: That the results of once or twice spraying with Paris green in early spring before the young apples had drooped upon their stems, resulted in a saving of about 75 per cent of the apples exposed to injury by the codlin moth.

The arsenic remedies have, to my knowledge, been used by several persons in this State, but while they have been more or less successful, yet, except in the case of apples sprayed with arsenic solution by Messrs. Little and Ousley, in the Santa Clara valley, as mentioned in my paper, no official analysis has been made of fruit treated with arsenic. These apples were found perfectly free from any trace of arsenic, although sprayed twice, and in the case of Mr. Ousley 50 per cent of the fruit saved. It must, however, be borne in mind that while arsenic, or arsenious acid, is very soluble—in fact, is dissolved by the least moisture—Paris green and London purple are not, and will remain on the fruit even after heavy rainstorms, as has been proved by recent analysis, in Illinois. Hence these must be regarded as *decidedly dangerous when used late, when the apple has size, and is hanging down.* It seems that it is the actual growth of the apple that throws off the poison, as none has been found on fruit treated early, in the Eastern climate. If there be any possible danger from the use of these substances, it will be determined definitely, and we shall bear this point especially in mind in our experiments this summer. We ask every one disposed to experiment to note carefully the time and manner of application, the condition of the fruit sprayed, and also the state of the weather. A number of samples of fruit thus treated and analyzed will settle the question of the danger to the consumer.

Paris Green.

Paris green is a compound of arsenic and copper. It is a far more powerful poison than arsenic alone, and is not soluble in water, hence will remain much longer on the trees. As stated before, in the Eastern States it is used in preference to arsenic, as it is not so liable to be washed off by rain; and another advantage is that it will not hurt the foliage, except when used in an overdose. Such at least is the report from the East. I have taken considerable pains to ascertain if any damage has resulted from its use in this State. I have learned recently, on a visit to Contra Costa county, of Mr. Treat, that peach trees treated with Paris green for the purpose of killing diabrotica beetle, suffered severely, but used upon apples and pears it had no bad effect. Doubtless it will be found that Paris green in market will vary in strength; the proportion to be based on the percentage of 15 per cent arsenic. The price of Paris green in San Francisco, by the small quantity, is 25 cents per pound.

Proportions Used.

One pound of Paris green to 54 gallons water is the strength used by Professor Forbes for his successful experiments. Other parties claiming to have been equally successful have used only half the strength. The Paris green is stirred and mixed with the water and kept constantly stirred while being sprayed.

London Purple.

London purple is another arsenical compound. It is the residue from the manufacture of aniline dyes, and contains lime, arsenious acid, and carbonaceous matter. It is more soluble, more adhesive, less poisonous, and less expensive than Paris green.

This compound in San Francisco is worth, by small quantities, 25 cents per pound, and by larger quantities, 22½ cents. It is mixed to a paste and then diluted. Professor Cook, of Michigan, recommends one pound to 50 gallons of water; others, as little as one pound to 200 gallons. We intend to try these different

strengths ourselves, but should not recommend less than one pound to 100 gallons. As the compound contains some arsenious acid, it would be advisable to use it on cloudy days if possible, as it might damage the foliage.

White Arsenic, or Arsenious Acid.

One pound to 200 gallons water, the arsenic being first dissolved by being boiled with caustic potash. Experiments with this compound in Santa Clara accomplished considerable good, and, it is plain, without any danger to the consumer; but in nearly every case the foliage of the trees has been damaged—in some cases badly, in others partially; and in only one case, where the application was made during the morning of a cloudy day, no damage was caused to the tree. Although less promising than any of the other remedies, it deserves trial.

Manner of Application.

It is of great importance that when applied the poison be well mixed in the water, and in the case of Paris green and London purple it is necessary to select such nozzles as do not clog. The mixture should be thrown over the tree so that every apple or pear is wetted, as it is by actual poisoning of the fruit that the egg or worm is killed. Thrown with a fine spray, two and one-half gallons of the mixture will suffice for a large apple tree.

Time of Application.

For reasons before mentioned, it is essential that the poisoning be done early. The first application should be made when the fruit is out of bloom. The second, 10 or 12 days afterward. If a third application be made—but it is to be hoped that would prove unnecessary—it should be done later than four weeks after the first.

Measures to Catch the Larvæ.

Banding System.—This mode of protection, which has been practiced in the Eastern States, has been tried in this State more than any other. Its usefulness is based on the observed habit of the larvæ when leaving the apple to seek shelter under the bark. The band about the tree provides artificial shelter for the worm, and the majority of the larvæ no doubt find their way to this; but a sufficient number for giving future trouble find other hiding-places on fences, buildings, etc., and perhaps more than anywhere else under clods at the foot of the tree; and it is here in an old orchard that I have almost invariably found cocoons. To make the banding system more effective, the ground right around the tree, as well as the whole orchard, should be thoroughly pulverized. The greatest obstacle to the success of the banding system is the neglect of one orchard-owner, while his neighbor conscientiously and thoroughly performs the work. The neglect or half-done work of one person among his trees is sufficient to counterbalance the attentive and thorough work of many others around him. The difficulty, in so many cases, of doing anything really satisfactory, I think is due to this want of co-operation. In my own orchard, in the Santa Cruz mountains, comparatively isolated, very fair results have been obtained. It is evident that in a thickly settled community, unless all concerned do their duty, the work will be largely in vain.

Picking Off Infested Fruit.

The practice of picking off infested fruit, of course, comes under the same head as the band system. In that it aims at a reduction or extermination of the next brood, it should go hand in hand with the band system. It is also open to the objection that unless the neighbors do their duty, little good is accomplished.

Whenever feasible, the custom of keeping hogs in the orchard is a good one, as in this manner all the wormy fruit is devoured, this naturally greatly preventing the increase of the moth.

A Los Gatos Wash.

Editors Press:—In your issue of March 12th I notice an article from the Willows, Santa Clara county, signed "R.," about sal-soda as a wash for scale. Also a reply by Prof. Hilgard. I will give you the formula of a wash that we use here with great success:

Twenty-five gallons of water; 25 pounds of sal-soda; 1 pound of good sulphur; 1 pound of saltpeter; 25 pounds of whale-oil soap, or 1 gallon whale-oil "foot," and a half sack of tobacco stemings.

Put the water in an iron kettle, take a burlap barley sack half full of tobacco, put in the sulphur with the tobacco, tie up the sack, place it in the kettle and let it boil for an hour and a half or two hours. Take the sack out, place it on two sticks over the kettle till it is well drained. Now add the sal-soda, then the saltpeter, and last add the whale-oil "foot" or soap. Let this boil for 10 or 15 minutes; then add 15 gallons of water. This will make you 40 gallons of the very best wash, which I apply hot with one of Bean's automatic air-pressure spray pumps. Dig the earth away from around the tree six or eight inches deep if the tree has scale, and apply the wash. It is almost impossible to kill all of the scale with one spraying, but the second or third time will always leave your trees clean, healthy and thrifty. I spray at any time after the leaves fall till the tree is ready to bloom. This wash is a good fertilizer, and is not expensive. Where there is no scale, I add 10 gallons more of water, which makes 50 gallons of rich fertilizing wash. A. N. Van Fleet,

Fair View Farm, Los Gatos.

The Stock Yard.

The Nevada Cattlemen.

The annual meeting of the Nevada Live-Stock Association was held in Reno, March 15th. E. W. Crutcher, president of the association, called the assemblage to order, and the secretary, R. W. Lewis, was in his place.

President Crutcher delivered an address from which we quote the following paragraph:

Allow me to inform you that through the influence of this organization we have secured the passage of some good and necessary bills, among which is a law forbidding the importation of contagion into and through our State. This is the absorbing question among our Eastern brethren, and it is a matter which we should all prepare to meet, for as sure as you handle cattle, you are "a gone gosling" if it ever reaches our herds. Securing just and equitable rates on transportation of live-stock is another matter which demands the attention of shippers. What effect the Interstate Commerce law will have we cannot tell. We will be subject to the regulations of what is known as the "long-haul" clause. It is generally conceded among cattlemen that the ruling rates here are sufficiently high to guarantee a standard by which the short-haul tariff could be amicably adjusted. It is not with the expectation that anything we may say on the subject of freight rates will result with any relief to cattle-shippers that we call your attention to the consideration of the question. It is for the purpose of eliciting discussion on the subject.

We are all engaged in raising of stock of various kinds and breeds. I hope we will take more interest in our State Agricultural Society. The stock exhibition is one of the most attractive features of the fair, and I hope you will all contribute something to its support and final success. Competition is one of the main secrets of success; without competition there would be no strife, and it is competition that causes men in breeding to excel.

From some cause our detective bureau has not given entire satisfaction. Some attribute it to the want of vigilance, some to the want of discretionary power on the part of the chief detective and those under him, others to the want of proper laws to convict and the moral support of the people. When men who claim to be exemplary citizens will interest themselves in behalf of those who defy the law, by obstructing in every conceivable manner the conviction of criminals, it is certainly poor encouragement for detectives and officers whose duty it is to see that the laws are enforced.

New Members.

Mrs. M. C. Lewis, H. F. Gambler, Lander county; J. G. Ford, M. D. Foley, Geo. W. Grayson, Eureka county; S. W. Cross, Elko county; W. S. Bailey, Churchill county; J. V. McCurdy, L. Giroux, G. S. Nixon, Humboldt county; Allen C. Bragg, Washoe.

Secretary Lewis' Report.

The secretary reported the receipts for the year $6675.33; expenditures, $8669.08; leaving, besides dues not yet paid in, a debt of $1413.75. The secretary's report also contained the following:

"The following movements of cattle have been reported to this office from January 5th to March 9th, inclusive:

Head of cattle shipped west	27,300
Head of horses shipped west	840
Cars of sheep shipped west	132

"Our inspector's department has for the past year been under the management of a chief, assisted by specials, and many cases of alleged theft, etc., have been examined into and acted upon by them. Surroundings beyond our control make it difficult to secure equitable protection for live-stock interests, although the sufferers be citizens and residents of a land of enlightenment and vaunted justice. The obstacles thrown in the way of our efforts for the suppression of crime are beyond credence, and are only fully appreciated by the executive of this association. Unsatisfactory as the work of this association may appear in some respects, its beneficial influence is seriously felt in the homes of thieves.

"Our representatives in Washington recognize our rapidly growing stock interests, and we feel that in them we have honest, able and faithful friends for the right.

"We have retained our membership in the Consolidated Cattle-Growers' Association of the United States, and bespeak for it our warm support, sympathy and representation, and, although many of its principles are foreign to our needs, we observe in the institution a spirit to secure for our interest the greatest possible good for all concerned. The building up of this association, so that it would possess the power to enforce its reasonable demands, would add greatly to our welfare."

New Officers.

The president and secretary declined re-election. The following officers were then chosen: President, George Russell; secretary, George S. Nixon, of Winnemucca; treasurer, Frank Sweetzer, of Winnemucca; executive committee, Geo. Watt, Lander and Nye; T. D. Page, Eureka; A. C. Cleveland, White Pine and Lander; E. C. Hardy, J. R. Bradley, Jos. Scott, J. B. Yaret, Elko; J. V. McCurdy, Orlando North, Jerry Hearn, R. W. Lewis, E. W. Crutcher, Humboldt; T. R. Rickey, Douglas and Ormsby; Louis Dean, Allen C. Bragg, Washoe; C. H. E. Hardin, Esmeralda and Lyon; Isaac Foster, Grant county, Oregon; N. H. A. Mason, Malheur county, Oregon; W. S. Bailey, Churchill.

Sheep and Wool.

Angora Goats.

Editors Press:—The class of Angora goats that farmers or ranchmen should procure depends entirely upon the size and capacity of the land suitable for a goat pasture which a person owns or controls, and upon the amount of money he wants to invest in the enterprise. On a small place, where only a few goats can be kept, take the best animals you can obtain. The mere name of "pure-bloods" (which, owing to the uncertainty of the breeding of all Angora goats prior to their importation to this country, is a very improper name at the best, and should be substituted by "thoroughbred" or "highbred") is not sufficient, as there are a great many Angoras going under that name, which are nothing better than grades of worthless breeding, though really descendants of imported stock. These goats, of course, are entirely useless if quality breeding is the purpose. The only animals from which you can reasonably expect to raise fine stock must be thickly covered with mohair from the face to the tail, and with nothing but mohair, without any admixture of coarse lusterless hair on the top of the neck, on the back and on the thighs. Such animals should not have bare throats or shoulders, and even their legs should be well covered. The denser, longer and finer the mohair, the better the animal. These, however, are not the only requirements for Angoras, but the above-mentioned qualities should have been inbred for generations, and the more ancient the generations of *uninterrupted high breeding* the more valuable is the animal as a stock getter, for "like begets like or the like of ancestors."

The less a farmer or stockman knows himself how and where to buy good breeding stock, the more particular he must be from whom he buys. To substantiate this I will mention three cases, which are very apt to illustrate how easily one may be misled in buying.

Some years ago a prominent Angora breeder sold to a Western man 100 head of Angora goats at, I am told, $40 each. As the price shows, they were not the pick of his flock but the culls; but they were undoubtedly the descendants of imported stock. After their arrival, and after the freight had been paid, they were, for some reason or other, resold, and I was informed they brought only $35 each, except four or five picked "billies," which were sold at $50. I have seen these goats repeatedly, but about half of them had bare throats and a good number even showed bare shoulders. Altogether the lot shows variable breeding, and some do not look any better than a third cross of a first-class Angora "billy" on a smooth-coated common goat.

Last summer I was sent by a party in Texas to a gentleman in Pennsylvania to examine a few goats offered by him for sale at from $60 to $150. The only good animal in the entire lot was a three-year-old buck, which the owner had bought about a year or two prior to my visit. He was the $150 animal. All the rest had bare throats and showed signs of variable and careless breeding. Except the above-mentioned buck, whose real value was not above $75, I would not have paid $8 per head all round for the entire lot. The owner knew fully well that I was perfectly acquainted with goat prices, and that I knew also how a fine goat ought to look. Altogether, I could plainly see in his face that he considered his goats first-class and that he felt disappointed at my not getting in a fever heat over their *fine points!* He honestly thought the above-mentioned figures cheap for his goats.

I was informed by an acquaintance that a gentleman in Rochester had three Angoras for sale at $100 each. I wrote to him about them, but mentioned in my letter that the price he asked was entirely too high for any goat, except for an uncommonly fine animal; however, that if he would offer them reasonably, I might buy them. Now let me quote from his letter: "I am willing to sell them reasonably, because I am not in the business. I have as fine a buck as you can find in the country. His brother sold last year for $100. He is a beauty. I cannot tell the weight of their wool. I keep them at a farmer's 20 miles from here. There is one very pretty two-year-old milk goat, the buck above referred to, and one handsome wether. If you will give me $100 for the three I will pay all expense of boxing and shipping."

I asked what breed they were. He sent me the letter from the party in Kentucky he bought them from; it read as follows:

"The buck which served all of goats was pure blood, a part of the ewes were full blood and a part seven-eighths, none less than seven-eighths, etc." So all of them were *grades*, and low ones at that, and $20 would have been a big—even a very big price for the entire lot.

The above-mentioned three transactions were all without any intention to misrepresent facts, the owners acting in good faith, but if they can lead to such poor results, the reader can imagine what mischief can be done when stock is intentionally misrepresented! All these cases show how careful a purchaser must be in order to get the worth of his money.

Thus, if you own a small place, take the best class of goats. Rather take only three or four prime animals than 20 or 30 poor ones, which only are worth what their hair and flesh bring in the market. You must be sure that the get of your stock will reproduce well, so that you can sell the offspring at a fair price and be sure they give satisfaction to your purchasers.

A party owning a large territory, suited to goat husbandry, is in a different position. If he does not want to risk too much in the start, it may pay him better to buy grades, according to their quality, at $3, $5 or $8 or more, and buy a large number, and, by careful breeding, breed them up to the thoroughbred standard. But also he should be careful as to what he gets for his money, and carefully avoid the offsprings of the *long and coarse-haired*, shaggy-looking common goat, whose fleeces are full of useless coarse hair, which depreciates the value of their fleeces. This coarse hair is mainly visible along the back and rear part of the thighs of the animals. These coarse hairs are easily introduced in a flock, but very hard to get rid of. It is by far a quicker way and a more thankful task to grade up a smooth-coated common goat to the thoroughbred standard than a thickly-fleeced grade, of fourth or fifth cross, but with plenty of coarse hair in the fleece.

If you have to select common nannies and want to grade them up, select nothing but the short-haired, slick-looking common ewes. The shorter, glossier and finer their hair, the better the animals for that purpose. But avoid like the plague the shaggy-looking long and coarse haired goats. You can just as well expect to produce pure standard mohair on back of the get of a porcupine or hedgehog as on the descendants of any of these coarse-haired goats.

If a ranchman can afford to keep thoroughbred Angoras on a large scale, he should do so. They are always more profitable than common goats, but only if they are the right kind of goats—that is, the very best. But especially in northern latitudes, where wintering stock is rather expensive, highbred animals should be preferred.

Bucks.

Now last, but not least, I will say a few words about bucks. They are to a flock what a general is to an army. As it is impossible for a good army to fight a fine battle under the command of a poor general, so it is impossible to attain good results, even with the best of ewes, if they are served by poor bucks. In purchasing these latter, do not spare trouble nor expense. There is no doubt that the only reason why Angoras have not been considered hitherto with more favor in the United States is to be found in the carelessness with which breeding stock, but especially bucks, have hitherto usually been selected, as well as in the fact that most breeders do not even know how a really first-class animal should look. I therefore will describe as closely as I can the points which a first-class Angora should have:

The body of an Angora goat should be long and as round as possible, though it is not as round as that of a sheep. The back should be straight, so that hip and shoulder are about equally high from the ground; shoulders and quarters heavy and fleshy, and the chest broad, indicating good constitution. The legs should be short and strong. The head is in shape like that of a common goat, but less coarse and cleaner cut. The horns are heavy, of spiral-like shape, inclining backward and a little to the outside.

Except just the face and the legs, from the hocks and knees down, the entire animal should be densely covered with mohair, and neither the belly nor the throat and chest should be bare, and the denser, finer in fiber and longer in staple the mohair, the more valuable the animal. Buck fleeces of the finest fiber should weigh, when the animal is at its best (that is, when four years old), five pounds, but never less than four and a half pounds. Coarse-haired animals should clip seven or eight pounds and better. The hair should hang on the animal in ringlets, and should not be shorter than nine inches, but with very fine goats it very often reaches 12 inches, and sometimes it is even longer and fairly sweeps the ground. The greater the length and density of the hair the better. Seen from a distance, the body of a well-fleeced Angora goat should appear like an oblong rightangled square.

Ewes are somewhat finer and shorter in fleece, comparatively lower at the shoulders, heavier quartered and narrower chested than males. Their horns are short and very thin, and curved backward. No good ewe should shear less than 3 pounds at a clip when 4 years old, and coarse-haired ewes from 4 pounds upward.

For grading up common goats and low grades, a coarse-haired, heavy-fleeced buck gives the best results; but afterward a finer fleeced animal should be used.

As exterminators of brush, goats have no equal, and as their droppings are fully as good as those of sheep, they are no doubt the most valuable of the two in brushy localities; but when it can be done, they should be kept together in the same pasture. However, do not forget that only the best kind of a wire or lumber fence will keep a goat!

G. A. Hoerle,
Cor. Sec'y Am. Mohair-Growers' Ass'n,
Ridgewood, N. J.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Peach Knot Discussed by Newcastle Grange.

EDITORS PRESS:—As you requested, I will let you know the result of our Grange deliberation on the "Peach Knot." A letter on the subject from Mr. Wickson, lecturer on agriculture at the State University, also the report of Mr. W. B. West to the State Horticultural Society, were read. A general discussion followed. Our opinions were varied; no one knew the cause, nor had ever tried a remedy. All that had ever been done was to take up the knotty tree and substitute a new one. Some thought we cultivated too much around the tree—too deep. Others thought that most always the trees would get their water during the middle and latter part of the day, when the ground was hot, and the tree right at the top of the ground got scalded, and sometimes the roots. It was thought also that trees planted on ground where the live oak and black oak grew, or had grown, took the knots from the old roots of the oak, as it was claimed that the oaks named had knots on their roots similar to the peach.

Another opinion was as follows: The peach tree under favorable conditions makes a large growth of top during the season. I can show prunings 12 or 14 feet—one season's growth. When fall comes, the sap going back into the roots does not find room, but makes it for itself in creating these knots—that is, it boils over. The next season, instead of the sap all going up the tree again, goes to developing the knot; the tree is less thrifty. The downward flow of the sap finds room in the knots and roots, but not enough to properly fill the knot, and so the knot begins to decay, as in all the roots I took up the knots showed more or less decay. Sometimes the tree will beat the knot. We have one tree (there may be more) where, in spite of the knot, the tree shows thrift. In this instance the knot is at the surface of the ground. The knot at the top of the ground occurs quite often, but the worst one we ever saw was where no indication of the knot showed itself except in the appearance of the tree. The root was simply a great egg-shaped ball, with a few roots 8 or 10 inches long running from it, and it showed no signs of decay. The tree was three years from the bud. Last year it did not make two inches of growth.

We are going to look into the matter further, and we will let you know what we find. Some trees I have dug around, chopped off the knot, sprinkled a little salt around, put fresh dirt in the hole, and am waiting to see the result. Those trees are in blossom and show no signs of being much disturbed.

The Grange (Newcastle, No. 241) wished me to extend its thanks to Mr. Wickson for the kind attention given to their request for information on the disease. S. AUSTIN WOOD.

Penryn, Placer Co.

Stockton and Lodi Granges.

EDITORS PRESS:—Stockton Grange has been considering the franchise for women, but means to take plenty of time on a question affecting the unity of the Order and widening her power for good or evil. Some honestly think it would ruin home life; others, that only bold tricksters would go to the polls; others favor a restricted, educational, property franchise for both sexes; and others believe in pushing it in the State and National Grange, even if members left—citing the "Emancipation Act."

I visited Lodi Grange on the 16th, when this question was earnestly argued in its scope and dignity, and continued to the next meeting. One level-headed brother didn't want men talked up as idlers, tippling away the family income and oppressing womanhood. Women could get laws altered without going to the polls. Women lied and cheated and would elbow up to vote for a rascal, just the same as men, while all good women staid at home.

Crops are later around Lodi, but hold out late. Fruit is promising. MRS. W. D. A.

The Gridley Monument.

A great picnic in aid of the Gridley monument fund, under the joint management of the San Joaquin Pioneers, the G. A. R. and the P. of H., is likely to be held at Good Water Grove some time in April or May. The Stockton Street Railroad Company has offered the use of the grove for the purpose, and all the organizations mentioned appear to be stirring in the matter.

The Stockton *Independent* states that the foundation of the monument has been laid in the Rural cemetery, on a lot donated by the directors to the G. A. R., and to which the remains of the patriot are to be removed. A marble statue of Gridley, to surmount the monument, is being chiseled in Italy. One statue had been finished, but was broken in the packing, and the sculptor is now at work on another. It is hoped that it will arrive and be ready for unveiling in Rural cemetery on Decoration Day, May 30th.

Facts for the People to Note.

The names of the commissioners who are to investigate the Pacific railroads have not been made public at the date of our writing, but their publication is looked for daily, and it is probable that ere our readers see this paper the appointments will have been announced by President Cleveland.

As foreshadowing to some extent the work of the commission, it is well to note some points in a report of the House Committee on Appropriations (telegraphed from Washington some weeks ago) respecting their refusal to make an appropriation to pay the C. P. R. Co. for carrying the mails and for other transportation. We quote:

"In this connection the committee would state that the United States owes the Central Pacific Railroad Company various sums of money for transportation under the War and Postoffice Departments, aggregating in round numbers $2,000,000 or more. The agents and attorneys of that company, with great persistency and activity, have sought to convince the committee that appropriations should be made for the payment of this indebtedness in money, notwithstanding the admitted fact that the railroad company is justly indebted to the United States in the sum of more than $60,000,000. The committee were of the opinion that equity and justice required that the company should be entirely satisfied to have the amount of these claims placed to its credit as a partial payment of or set-off to that much of its vast indebtedness to the United States.

"The committee was answered by the agents and attorneys before alluded to that the debt of the company to the Government was not yet due and would not be for eight or ten years yet to come; that a test case has been made and tried in the Court of Claims and on appeal in the Supreme Court of the United States, and that those tribunals had each decided that the company was entitled to the payment of these claims regardless of its indebtedness of $60,000,000, as before mentioned, and that the indebtedness of which payment was asked accrued to the company by reason of its performing the service out of which the claims originate over branch lines not subsidized or aided by the grant either of bonds or lands, but leased, controlled and operated by the company.

"It should be observed, however, in this connection that the accounts are presented in the name of the Central Pacific Railroad Company; that the indebtedness and the audit are to that company; that the test suit was in the name of and by that company; that the judgment was rendered in its favor and that the services were rendered by it; but in rendering such services the company used its leased lines. Therefore, if there was ever a man or corporation under obligations to keep faith with the Government and the people of the United States, the Central Pacific Railroad Company and those who have control of the vast wealth and power conferred upon them by the legislation of 1862 and 1864, were, and are, bound by every consideration of justice, honor and gratitude, to keep absolute, perfect and unlimited good faith with such government and the people.

"Under the legislation alluded to, it cannot be too frequently stated or too earnestly considered that the Central Pacific Railroad Company received from the Government immense privileges, bounties and subsidies. Among other things, first, a natural legal status; second, a grant of the right of way of 404½ feet in width; third, earth, stone, timber and other material of construction from adjacent public lands; fourth, alternate sections of the public lands on each side of the road for a depth of 10 miles, and in order that the company might have the choice of land, it was allowed to the extent of 20 miles on either side from which to select the quantity indicated; fifth, on 17.18 miles of the road, the Government loaned it $16,000 per mile, on 150 miles the Government loaned it $48,000 per mile, on 580 miles the Government loaned $32,000 per mile, all in 6 per cent 30-year bonds; sixth, the bonds of the company issued in 1865, 1866, 1867, 1868, 1869, and made a lien prior to the bonds of the Government lent to the company and aggregating $27,852,000 with 30 years to run at six per cent gold interest; seventh, the capital stock issued by authority of law, but required to be paid up in cash and in full $59,275,500.

"We have a right to assume that the land produced revenues equivalent to the $32,000 per mile, an amount amply sufficient to complete the road; that the bonds the Government lent to the corporation, and averaging over $35,000 per mile, were more than sufficient to complete and equip the road; that the second mortgage bonds allowed to be made a first lien as against the bonds of the Government so lent were sufficient to complete the road, and that the stock required by law to be paid up in full was more than double the amount required to build the road.

"Thus this corporation secured, through the confidence and bounty of the Government, a sum of money sufficient to build and complete five roads of the same length. Where is all this money?

"Will it be seriously denied that this money, the money of the people and their Government, formed the basis of the great fortunes made by the recipients of all this bounty, and also defrayed the cost of building all the branch roads, which were claimed to have been leased only by the Central Pacific Railroad Company? When to these vast sums we add, practically, the net earnings of the road for 20 years in which the Government has an interest by law, we recognize the sources from which came the money to build all the roads ever operated or leased by the Central Pacific Railroad Company. In this estate the Government had and has a sovereign interest, subject only to rights of honest creditors, to whom the Government has given prior rights."

After referring at some length to the alleged test-case, in which judgment for the company was allowed to be entered in the Court of Claims, and showing how slender are the conclusions that can be drawn therefrom, the report proceeds:

"It would seem that the road of the corporation enriched by the legislation of 1862 and 1864, and in which the Government has such a large interest, together with all its leased or operated lines, is now or was recently in the possession or control of a corporation created by a special Act of the Legislature of the Commonwealth of Kentucky and called the 'Southern Pacific Company,' as lessee, on a lease or leases for 99 years.

"As the Government employs a number of representatives of the United States in the directory of the company, we may at their convenience get a history of the wanderings of a fugitive debtor to the United States, which, when last heard from had taken temporary refuge, at least, under a new but pacific name within a State somewhat distant from its theater of operations. The Southern Pacific Company, of Kentucky, must be, as lessee, receiving the earnings of its leased lines. Has not the Government such an interest in this property as would justify a strong interference by the proper Government officials?"

In connection with the proposed appropriation of $150,000 for army transportation, the following proviso was inserted by the committee:

Provided, That no part of this sum shall be used for the payment for transportation over any line or lines owned, leased or operated by the Southern Pacific Company, a corporation created by the laws of the State of Kentucky.

March Grange Organized at West Butte.

The *Sutter Farmer* of last week tells in lively style how a new Grange was instituted on the 19th of March. We give in condensed form the substance of the pleasing story:

Last Saturday was a day that will long be remembered by a large circle of visitors to a certain prosperous little hamlet near the western boundary of our county. The vicinity of West Butte contains a population nowhere excelled in intelligence, sociability, industry and prosperity. The farms are small and well cultivated; the surroundings betoken thrift, taste, neatness and comfort, and the Grange spirit is so clearly manifest on every side that the only wonder is it had not sooner organized itself in living form.

At last County Lecturer Frisbie was notified to come and set the wheels in motion; and he in turn invited W. S. M., Johnston, and W. S. L., Flint, but neither could come, owing to previous engagements; hence the work devolved upon local talent. North Butte Grange was represented by R. K., Mrs. and the Misses Stevenson and Mr. and Mrs. H. S. Graves; Grand Island Grange, by W. M., J. R. Tottman and wife; Yuba City Grange, by Mr. and Mrs. and Earl Frisbie, Mr. and Mrs. B. F. Walton, W. M., C. E. Williams and Mrs. Williams, Mr. and Mrs. C. C. Newkom, Harry Walton, Mr. and Mrs. Sammish, W. J. Hardy, George Ohleyer, Jr., Miss Newkom, Mrs. Kline, Willard Woodworth, and George Ohleyer and wife.

The assembly was called to order by Duputy Frisbie, who filled the offices temporarily with Grange members, after which 26 persons came forward and signed the roll as charter members, a few being absent, owing to high water in Butte slough. The applicants having been duly accepted and instructed, all were invited to and partook of one of the most sumptuous Harvest Feasts it has ever been our good fortune to attend—and the good sisters called it a "lunch."

The feast over, the officers were elected and installed, and the new Grange was named "March Grange," in pursuance of the suggestion of Mrs. W. W. Wilbur. The name is significant—first, as denoting the month of its organization; second, the pleasant springtime; and third, progress, or forward, *March!*

Several visitors were then called on for remarks, which, owing to the approach of evening, were short, and after a general farewell hand-shaking, the assemblage dispersed to their homes, well pleased with the fraternal meeting, and all wishing the new Grange unbounded success.

Following are the officers elected to serve the present year: C. C. Patridge, M.; W. W. Wilbur, O.; Mrs. E. C. Reynolds, L.; W. F. Hoke, S.; J. C. Porter, A. S.; Mrs. W. W. Wilbur, C.; E. A. Noyes, T.; Mrs. S. I. Noyes, Sec.; W. W. Reynolds, G. K.; Mrs. Mary Patridge, P.; Miss Addie Porter, Flora; Miss Nannie Stevenson, Ceres; Mrs. M. L. Porter, L. A. S.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Now that Congress has adjourned, and members of the Grange are feeling well over the passage of measures in the interest of agriculture, some of which we have been advocating and working for many years, let us not forget our plain duty of saying, "Thank you!" to those who were our friends, and by voice and vote proved themselves true *representatives* of the great class whence came, in most instances, the majority of the votes that placed them "in the front." We pass our resolutions, adopt our reports, forward our petitions and memorials, "demand" the passage of certain bills, because they are right; we censure and blame those who forget us; but do we *always* give credit where credit is due? During the last session of Congress some brave men had frequently to dare party displeasure, or, perhaps, equally as serious a matter for them, incur the enmity of corporations that will be used *against* them in a future nominating convention or a canvass for re-election. So let us at least thank them personally or by letter; show that we can praise as well as blame, and that the one will help as the other will hurt their prospects. This is one more way of proving the power of our organized efforts.

While we are thanking our representatives in legislative halls, let us also not forget our other able allies—the favorable press. Some so-called agricultural papers hardly ever mention the Grange; others, and their numbers are increasing, are ever willing to lend the helping hand in all our honest efforts to hasten the good time coming. Let us thank *them*, also, and show our appreciation of their help not only in words but by a hearty support, and aid in extending their circulation. While for those who slight our great Order, or slyly ridicule our work—well, let us quietly drop them from our list of papers. "Cling to those who cling to you." In this way the power of organized effort can also be shown and *felt*.

"In the past the farmers as a class have generally been content to remain totally disorganized, and instead of uniting to press upon the attention of the National Government any special interests of their own, they have been willing to trust to Congress to enact such laws as would be fair alike to all. The inexorable logic of events, however, has demonstrated to them that they have been too trustful, and that they are now at great disadvantage before the laws, and that a great effort will be required to regain their lost ground. They are learning, too, that to be effective their great numbers must pull together. This can be done only by organization."—*Senator Jones, Arkansas, in U. S. Senate.*

"What agriculture needs is a repeal of those laws which have dethroned her from the imperial position which God gave her and which she ought to occupy in this land to-day."—*A Voice in the House of Representatives, February, 1887.*

"This practice of creating securities in excess of actual value has, by one method or another, imposed on investors a volume of fictitious stocks and bonds more than double the amount of the National debt. According to the estimate of the most widely acknowledged statistical authority upon railways, through the methods of sale or hypothecation, $3,720,000,000 of puny paper values ('watered stock') have been sold to the public."—*J. F. Hudson.* Is it any wonder we are creating millionaires so rapidly? This "watered stock" alone, at $1,000,000 each, would make *three thousand seven hundred and twenty millionaires.* And they do "make" money so easy—out of white paper and printers' ink—then the people are taxed in freight and passenger rates to pay dividends on this "paper money."

"Farmers' organizations are a necessity; in order to meet successfully organized power, the farmers must form thorough organizations among themselves, and there is no national and complete organization except the Grange; it must be either this or nothing, and farmers themselves must decide the question; it has no middle ground, simply two sides from which to choose; one is to unite in organization and co-operative work in self-defense and protection, and the other is to keep aloof from organization, which virtually acknowledges that we are incapable of self-government, and therefore prefer masters to control us, and accept whatever they may see fit to leave us."—*Henry Eshbaugh, Past Lecturer National Grange.*

Suggestion for the Good of the Order.

"During the first years of our organization we built a fine hall in which to hold our meetings, and by that means, as we believe, perpetuated our organization, and we are now reaping the reward of our forethought. We are determined to keep the Grange in good running order, and hand it down to future generations. Have Grange homes. The W. S. L. of California, Daniel Flint, when with us said: 'Patrons, build yourselves halls. Don't be ashamed of your Grange homes, but paint in bold letters your Grange name, number and date of organization.' Everybody and everything, even a bird, can and will work with more love, energy and hope, if it is a home they are building up and beautifying."—*I. L. H., Oregon.*

Progress.

March 11th, State Master J. H. Hale, of Connecticut, organized a new Grange at Mansfield. Among the members were the professors and teachers and young men of the Storrs Agricultural school.

The Oxford County P. of H. Mutual Fire Insurance Company has 666 policies. Amount insured, $667,482. Paid for fires, 1886, $3058.95. Actual cost for insurance for past ten years on $1000 has been $10, or $1 per year.

"The Grange is growing in power every day in this State."—*E. C., New Hampshire.*

Cataula Grange, Georgia, by co-operation with State Grange in purchase of fertilizers for spring crops, saved 12½ per cent ($250) on a bill of $2000.

A carefully planned and conducted campaign is now being carried out in Colorado for a revival and extension of Grange work by Worthy Master Levi Booth and a corps of earnest helpers.

Georgia and Texas are showing the most life and push in Grange work just now of any of the States south of Mason and Dixon's line. But without exception the State Masters "down South"

are writing of encouraging signs of renewed interest, and the future is brightening all along our lines.

"So let it be. In God's own might
We gird us for the coming fight,
And strong in Him whose cause is ours,
In conflict with unholy powers,
We grasp the weapons He has given—
The light and truth and love of heaven."
—*Whittier.*

Officers Installed.

LINCOLN GRANGE installed the following officers March 19: Hollis Newton, M.; J. S. Philbuck, O.; O. Clark, L.; G. Jobe, S.; P. Ahart, A. S.; Rebecca Keaton, C.; Mrs. Hollis Newton, T.; A. J. Soule, Sec.; L. N. Scott, G. K.; Mrs. N. A. Scott, P.; Mrs. E. M. Crook, F.; Mrs. W. P. Ahart, Ceres; Lulu Allen, L. A. S.

PILOT HILL GRANGE.—Jan. 7, 1887: N. Wentworth, M.; C. Rogers, O.; F. Lovejoy, L.; S. Lovejoy, S.; J. Johnson, A. S.; J. W. Davis, C.; J. P. Bayley, T.; A. J. Sumpter, Sec.; J. W. Young, G. K.; A. Dobbat, L. A. S.; Mrs. C. G. Lovejoy, P.; N. Wentworth, F.; A. J. Bayley, Ceres.

PLYMOUTH GRANGE.—March 12: J. F. Gregg, M.; J. Sallee, O.; Mrs. Worley, L.; J. G. Aden, S.; B. Jelmini, A. S.; Mrs. Wheeler, C.; Eleanor Easton, T.; Clara Sallee, Sec.; E. S. Potter, G. K.; Linda Moore, P.; Belle Paul, F.; Ella Wheeler, Ceres; Mrs. S. J. Salee, L. A. S.

Danville Picnic, May 7th.

Patrons will look forward with pleasant anticipations to the Grange picnic for Contra Costa, Alameda and Solano counties, which is to be held at Danville, Saturday, May 7th. A large attendance is desired. The committee are encouraged to expect an address, among others, from one of the best orators of the Pacific Coast, and the aim is to make the day one of great profit and enjoyment, both mentally and socially. Full notice will be given of the arrangements, when perfected.

MAKE FARM-LIFE WINSOME.—Young people naturally crave more or less excitement and pleasure, and generally find a way to gratify their taste in this respect. Now, just in proportion as you make the home-life and harmless amusements attractive, and encourage a taste for pure reading, etc., thereby making life on a farm consist of pleasure and intelligence as well as toil, we shall hear less of the cry that our young men are drifting to the overcrowded cities, and that very few are willing to farm in these days—an evil which needs careful consideration and earnest work to counteract its baneful influence. In these young people, more than any other class, lies the future of our Nation. Which shall it be, a Government to which we can point with pride, and say to it, and those statesmen, behold some of the work of the Grange? or shall we have to blush for its ignorance and shame? The latter will never be the case if the Grange continues to prosper and diffuse its educational principles and literary advantages among the agriculturists of our country.—*Fannie E. Thoman, in Farmers' Friend.*

FARMERS ORGANIZING.—The Walla Walla *Union* reports the organizing of a Farmers' Protective Association there, March 12th, with the following officers: President, W. S. Gill am; Vice-President, F. M. Louden; Secretary, F. T. Gilbert; Treasurer, Orley Hull, who were directed to draft a constitution and by-laws, and call a special meeting of the society to act on the same. An executive committee of 11 was also chosen. The Secretary was instructed to request farmers in other localities to organize local assemblies. Speeches were made by eight or ten of those in attendance, showing the necessity of organizing for protection, and when a rising vote was taken to ascertain who would join such a movement, all present signified their willingness to participate.

SAN JOSE GRANGE last week conferred the fourth degree upon a class of four. After the secret work in the lodge-room, a company numbering about three-score sat down to an informal dinner in the adjoining hall. When the viands were disposed of, Mrs. S. P. Saunders welcomed the new members; E. T. Pettit read Emerson's essay on "Friendship;" Hon. I. A. Willcox made an entertaining speech about "Grangers;" a reading was given by S. P. Saunders; and songs were sung by the Messrs. Webb and Miss Lizzie Webb. A local reporter says: "The Harvest Feast was greatly enjoyed by all present, and those of the company who were not Grangers wished they were."

A CONTRACT has been let to parties to make 6,000,000 brick for the use of the Southern Pacific Railroad Co. The parties who received the contract have bought land just north of Anderson, Shasta county, and have put men to work cleaning it of timber, preparatory to commencing operations immediately. The company intends to run a side track into the yard.

"BETTER AND BETTER."—A regular reader in Monterey county incloses a dime to us, saying: "Please send me another copy or two of the last RURAL PRESS. I like it better and better, and those to whom I send it at the East are equally well pleased with it."

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

NEW ORCHARDS.—Livermore *Herald*, March 24: J. D. Smith finished planting the Hatch and Robertson orchards yesterday. The Robertson planting was 32 acres—17 of almonds and 15 of Bartlett pears. Mr. Hatch planted 30 acres on his purchase in the Oak Spring tract, and 34 on the Daugherty place. The latter planting was done in two days by 20 men—staking, hole-digging and planting. The 64 acres were planted from Friday noon to Wednesday night. The work was well done, and with another inch of rain, the trees will make a good growth this season.

HOW HE PLANTS ALMONDS.—A. T. Hatch, the veteran fruit-grower, on his planting of 60 acres of almonds in this valley, is cutting off the entire top to within a foot or 14 inches of the ground. The pruner is instructed to leave the top bud on the west side of the tree, and slant his cut toward the east.

Calaveras.

MORE GOOD COWS WANTED.—San Andreas *Prospect:* Ranchers in this immediate vicinity have the very poorest kind of milch cows. There are a few very good cows, but they are owned by parties who pay no attention to the raising of stock; they simply keep the cows for milk and butter for family use. W. J. Adams, who recently bought the Table Mountain ranch, near Murphys, we are informed, has some of the finest cows in the county. They are thoroughbred Jerseys. There is no question that the Jersey cattle will do better in the mountains than almost any other breed.

Contra Costa.

WATERMELONS.—Martinez *Gazette:* Last summer Philip Wells, of Pacheco, sold over $300 worth of watermelons from one acre of land. Melons in this county remain on the vine until late in the fall, several crops being borne.

OLIVES.—Although there are no extensive olive orchards, there are trees growing in nearly every section of the county. H. M. Gregory, of Ygnacio valley, has an olive tree that bears heavily every year. John Garcia, of Concord, has three trees 12 years old, from which he gathered 750 pounds of olives this season. The impression that the olive tree will not bear until ten years of age is erroneous. Trees on the farm of James Hook, of Pacheco, bore a few olives the second year after planting, and averaged 30 pounds to the tree the third year. Mr. Hook is making oil out of his olives.

Fresno.

BOUND TO HAVE WATER.—Selma *Irrigator:* Last Monday the directors of the C. and K. canal noticed water running in their canal, and ordered Supt. Shaffer to go and shut it off. With John Stroud he went to the head gate and undertook to close it. When he touched the gate a man arose from the bushes near by. He had a barley sack over his head with eye-holes cut in it, and carried a formidable-looking shotgun, which was pointed directly at Shaffer. "You let that gate alone," was the first salute. Shaffer informed him that he was the superintendent of the canal, and had been ordered by the courts to shut the gates. The man in the sack spoke again, saying: "I don't propose to argue the question with you. You let that gate alone and get out of here." His finger was on the trigger of the gun, and as the argument presented was decidedly forcible, Shaffer decided to get. A meeting of the board was held, and an affidavit sworn to by Shaffer and forwarded to Judge Cross at Visalia, to show that the board had done what they could to shut off the water and protect them from fine. The water is still running in the ditch, and those using it are making up for lost time. Everybody is irrigating.

Inyo.

ORNAMENTS FOR OWENS VALLEY.—*Inyo Independent:* At the residence of A. N. Bell, at Camp Independence, are some very fine Italian cypress trees. The trees are heavily loaded with seed bolls, and Mr. Bell will supply all that may be wanted, free of cost, to any who may call at his place and gather them. He has a number of young trees growing from the seed. The Italian cypress is a handsome evergreen and grows rapidly at his place. No doubt it would do the same all over the valley.

Lassen.

FOUR CALVES IN THIRTEEN MONTHS.—Chico *Enterprise:* John Blunk, of Honey Lake, has a cow that on the 29th of January, 1886, gave birth to twin calves, male and female. Feb. 8, 1887, the same cow gave birth to twin calves—both females. Mr. Blunk says that if the District Fair is held at Susanville this fall he will place this cow and her family on exhibition, and see if any stockraiser of the northern country can beat them.

Marin.

RAVAGES OF HOG CHOLERA.—Telegram from Petaluma, March 26: Over 4500 head of hogs have died of cholera near Point Reyes since the disease was imported from S. F. a few weeks back. Many also have died in other parts of Marin county touched by the same drove of hogs. One ranch on which they stopped an hour lost 60 head. Another ranch lost 90 head, all the rancher had, and many others this side of Point Reyes have been heavy losers. In fact, everywhere the drove went they spread the infection, and parties acquainted with the disease say it will be a long time before it is finally eradicated.

Los Angeles.

MANURING ORANGE TREES.—Santa Ana *Standard:* We went through W. Z. Cook's beautiful little orange orchard this week. As an orchardist, he is one of the most thorough in the valley and does everything well. He showed us two Navel trees set out the same day five years ago. One was thoroughly manured, the other was not. The manured one is five times as large as the other, yet both had equal cultivation.

Monterey.

AUGMENTING ORCHARDS.—Salinas *Index:* At Carneros M. Nicholson has been adding 25 acres to his orchard; M. D. Murphy has added several to his, mainly apricots; J. B. Hickman has set out about 150 trees; J. S. Rowe, J. M. White and others have made slight additions to their orchards. In a few years the valley will have more than enough fruit for its own use.

San Benito.

SWARMING SQUIRRELS.—Hollister *Advance:* The land along the railroad track in this county is honeycombed with squirrel holes, and there the pests breed in large numbers. Anywhere near the railroad the squirrels can be seen coming in from the fields, their stomachs filled with seed wheat which they have scratched up. While the farmers all around are spreading poison in their fields, no doubt, if the matter was properly presented to the railroad authorities, they would instruct their section hands to aid in exterminating the rodents.

San Mateo.

COUNTY'S CAPABILITIES.—*Times & Gaz.:* In the village of San Mateo excellent oranges have been grown for many years past—enough to show what might be done in the sheltered foothills. The banana grows in the open air on the grounds of Mrs. Bowie. A plant of it fruited there a year or two since. Date palms grow here. The olive has proven a rapid and thrifty grower. Figs, in suitable situations, grow luxuriantly and produce abundantly. Bartlett pears are a valley product of unsurpassed excellence. The vintage of Portala valley has already attracted appreciative attention.

Santa Barbara.

EDITORS PRESS:—The Santa Barbara boom grows bigger and bigger every day, every hour. Will it ever burst? I begin to surmise it never will, but that it will grow inwardly as well as outwardly, until it becomes one solid lump of goodness. Well, why not? We have the best climate in the world, some of the best people in the world, as charming and romantic scenery as can be found in the world; and if we charge new-comers prices big as any other prices in the world for some of our houses and lots, and other good things, who shall say us nay? Some of our crops are sadly in need of a little more rain, and if April showers do not come to help us out, there will be quite a shortage. But the fruit prospect is, so far as my experience goes, unprecedented.—S. P. SNOW, *March 25th.*

SCORPION VERSUS CROW.—Lompoc *Record:* While W. J. Robinson was plowing recently he turned up a scorpion which was seized and borne off by one of a greedy flock of crows that was following the plow. Soon there was a great commotion among them, and he saw the one that had carried off the scorpion lying upon the ground. On examining it he found that the insect held in the beak of the bird had stung it under the eye, causing almost instant death.

Santa Clara.

BANANA PLANTATIONS IN EMBRYO.—*Call*, March 24: About a year ago a lady who lived for many years in the Hawaiian islands, but is now settled in the foothills about 2½ miles from Los Gatos, noticing that the climate was similar to that of her island home, sent down for a quantity of banana plants and set them out as an experiment. They have thriven remarkably well, and give every prospect of bearing an abundant crop of the luscious fruit during the coming season. Captain Lucky, of the Pacific Towboat Company, who has a ranch in the same neighborhood, has sent to the islands for a large number of the plants.

Shasta.

HOPS.—*Courier*, March 19: Dr. Mooers has a fine hop field near Burgettville, and derives a handsome income from it. We have often wondered why hops were not extensively cultivated in this county. There are thousands of acres of land on Cottonwood, Stillwater, the numerous creeks in the Millville country and many other places, where hops would grow in great profusion and no danger of the crop ever failing.

Solano.

VACAVILLE NOTES.—EDITORS PRESS: The weather is very pleasant, though threatening rain. The ground that has not been plowed is getting very dry. People generally have the first plowing done. Ground is very rough—more so than common. Nearly all kinds of fruit trees are loaded with blossoms. This does not insure a crop of fruit, but it is a good start, for without blossoms there could certainly be no fruit. There has not been a great deal of new orchard and vineyard put out this year. From 30 to 50 acres of vines and from 75 to 100 acres of trees will cover what has been put out in Vaca and Pleasant valleys. There have been several hundred acres put out in the vicinity of Winters. Messrs. Amoore & Gorman have started a Japanese nursery in the Gates canyon, four miles west of Vacaville. Grapevines are starting very finely; sprouts two or three inches long are on many vines. Several commission men have already been around. It is early for them, as they usually do not come before the middle of April. The box men are also on hand. One was at Vacaville last week, with cherry-boxes with slats on the sides, and a partition in the middle of the box and warranted to hold ten pounds, for which he asked 3½ cents apiece.—G., *Vacaville.*

A NEW ALMOND.—Davisville Cor. Dixon *Tribune:* W. F. Treat has discovered in his orchard a new seedling almond. The tree is eight years old and a constant bearer, never having failed to bear a full crop for five years past. The nut is somewhat longer than the Languedoc, ripens four weeks earlier and drops from the hull when mature. The tree is no way favored, as it stands in the middle of an almond orchard, the trees of which are 20 feet apart.

Sonoma.

AN ENORMOUS EAGLE.—S. Rosa *Republican:* Price Brown, an employe of E. W. Davis in Yulupa Valley, lately killed one of the largest bald eagles ever seen in this part of the country. The bird measured 78½ inches from tip to tip; its talons were large and strong enough to hold a two-year-old child, and the beak was sharp enough to cut any kind of flesh. Our friend Price gets a bounty of $2.50, and the money is well expended by the Board of Supervisors.

Tulare.

EXPERIENCE IN GROWING RYE.—*Register:* The rye was sown after the rains last year, by H. E. Francis, a few miles southwest of Tipton, getting but one slight sprinkle on it, and with a spring-toothed harrow upon a barley stubble field, without plowing. Notwithstanding this bad farming, it grew to be from six to eight feet high, so that, when cutting it for hay, the driver had to stand up on his machine in order to see the flag set to mark his course across the field. Off 18 to 20 acres 50 tons of hay were cut, and stock seemed to do better upon it than upon barley hay. A few acres were allowed to ripen and were thrashed, and the grain, soaked, made excellent feed. From this it would seem that rye will stand drought better than either barley or wheat, and will yield more hay to the acre under like circumstances.

GYPSUM ON ALKALI.—*Delta:* John Mitchell, of Paige & Mitchell, the large grain-growers, lately purchased several tons of gypsum and sowed it on some spots of land highly impregnated with alkali, which had been thoroughly plowed and prepared for wheat and alfalfa. After sowing the seed, the gypsum was put on at the rate of from 100 to 500 pounds per acre. The result will be anxiously looked for by many who have alkaline patches among their many acres of excellent soil. If it neutralizes the evil effects of the alkali, for both grain and alfalfa, a great good will have been accomplished.

GOOD GRAIN.—The *Register* received, March 21st, some fine specimens of oats and barley pulled from the fields of J. R. Hubbs on Tule river, in the orange belt. The grain was well headed and from five to six feet high. It was sent to Los Angeles, to be placed in Tulare county's exhibit.

CORK OAK.—*Delta*, March 24: One of the finest specimens of the cork-bark oak in the State is growing in Visalia. It was planted about 30 years ago, and is now a large and thrifty tree.

Ventura.

PLANNING FOR A PAVILION.—San Buenaventura *Republican*, March 26: It is proposed to organize a corporation with a capital stock of $7500, for the purchase of a lot with a frontage of 59½ feet on Main street and 170 feet deep, whereon to erect a building, a part of which shall be adapted to the use of the Ventura Development Association for a permanent exhibition of Ventura county resources, and the balance for rental purposes. Back of the building is to be a garden about 59½x50 feet, for the display of trees, shrubs, flowers, etc. The roof is to be of glass. The subscriptions are on condition that so much property can be purchased at not to exceed $80 per front foot, and that the whole amount of capital be subscribed before May first.

NEVADA.

IMPORTING DRAFT-HORSES.—Reno *Gazette:* The Oasis Stock & Land Co. has been incorporated in N. Y. City with a capital of $60,000 and the following officers: Pres. and manager, E. C. Hardy; Sec., H. K. Lyon; Treas., A. E. Kingsbury. Mr. Hardy shipped on March 15th from Normal, Illinois, for Toano, 26 head of fine Norman Percheron and Clyde stallions and mares. He has taken great pains to get a good selection of horses, and thinks they will please the most careful buyers.

SAN LUIS OBISPO PROPERTY.—Parties attracted by the activity in San Luis Obispo real estate and the consequent rapid advancement of the county, should note that the business office of the West Coast Land Company has been removed from San Luis Obispo to Templeton. Mr. C. H. Phillips, who is manager of the company and a pioneer in San Luis Obispo real estate business, evidently believes in keeping his forces at the front, and by moving to the new town of Templeton strikes the incoming tide of settlers who arrive by rail.



A Load of Wood.

To My Friend Upon His Wedding Day.

Accept my offering—a farmer's load—
The gnarled roots of mesquite and of sage,
And boles of mountain oak, torn from the soil
With many a blow of mattock and of ax.

Such uncouth cordwood is in vogue with us
Who dwell upon the mountain-side, where erst
The scrubby chapparal was all the growth
That Nature, in a rugged spirit, gave.

And so, in clearing off my foothills farm,
To plant therein the orange and the vine,
That better grace this sunny clime of ours,
My stock of fuel grew. And I have come,
With wagon clattering down the rugged way,
And I have brought my offering, as the rest,
To grace your wedding feast.

Doubt not, my friend,
That you shall find the fuel sound and good,
Quick to the spark and ready in the blaze,
To boil the pot and make the kettle sing.
'Tis likewise fairly suited to the grate
(Now the long evenings are a little cool),
Yielding its store of sunshine to the room.

For every use
That men require, in reason, of a fire,
I do commend this wood. But know you that,
Beyond the uses here enumerate,
There's magic in it? Wonders like to which
The sorcerers of the East did never work,
Shall it perform for you.

The time is come
When to yourself you take the heart's best choice,
An honored wife. And you have chosen well;
For she, not lacking in the gentle grace
That Nature but bestows on womankind,
Has yet the subtler charm that is vouchsafed
To those alone of true and generous heart.

Enconsced in gown and slippers, sit you down
(Your love beside you), and this magic blaze
Shall send a thrill of rapture through your soul
That kings and emperors have vainly sought.

Anon the simple meal
Her hand prepares above this witching flame
Unto your palate shall approve itself,
Than nectar and ambrosia sweeter far.
Into the embers of this mystic fire
Gaze you, while the night is growing old,
And (still your wife beside you) there shall be
Most wondrous visions to you both revealed.

So, pondering on these things, it seemed most fit
That I, your boyhood's chosen friend, and still
The boon companion of maturer years,
Should your Prometheus be; bringing the fire
To consecrate your home. God bless you, Fred!
God bless your hearthstone! May its flame of joy
Burn on unceasing, like the Aztec fires.

— Wm. A. Spalding, in the Overland Monthly.

The Kitchen Slave.

[Written for the RURAL PRESS by MALLIE STAFFORD.]

I have read from time to time the interesting letters from the wearied army of hopeless toilers on this subject, but forbore to wield my pen on the topic, preferring rather to read and learn, and fearful that I might not be able to impart information that might be of essential help; but after reading the touching story of "A Novice," have decided to enter the ranks and impart some hints which may serve to lighten the labor of some overworked housekeeper.

There are thousands of women to whom thoughts similar to the following are familiar. "There must be something wrong in my general make-up. Why was I not constructed a mere machine, with no thought beyond and above my work, or else why was it not my good fortune to be in a position to exercise my tastes, and follow the bent of my inclination?" Of course there are plenty of men in similar positions, whose occupations are foreign to their tastes; but a man is a more independent being, and can more easily "conquer destiny," so to speak. He can change his business or vocation, but a woman—well, there! Once married, her life, her tastes, her inclinations are swallowed up in her household—there is no evasion, there is no possible change. If through love of a man she accepts his humble circumstances, she becomes in verity and of necessity the kitchen slave; but this kitchen realm is not to every woman forbidding and distasteful. Some there are, if not overworked, take pleasure in making it an artistic study, and it is a branch of the household the most important, inasmuch as good health, and consequently good nature and comfort in the family, depend largely on what we eat and how it is cooked and served, if no other department should demand artistic skill and judgment.

But we were not speaking of those who delight in the kitchen realm, but of those to whom the employment is disagreeable, to whom the handling of black pots, the scrubbing of dirty floors, the endless washing of dishes and scraping of grimy potatoes, is a positive drudgery. There is a fine line, too, between false sentiment on the subject and an honest repulsion to the kind of work. If a woman marries a man in humble circumstances, she knows her lot. She goes into it with her eyes open. If she is a sensible, amiable woman, she will bear and wrestle with kitchen slavery to the end of her days, however foreign to her tastes it may be, and will devise ways and means to lighten it of its heavy burdens; and if the husband is kind and sympathetic, he can do wonders toward smoothing her way. Plenty of wood handy, and plenty of pure water in the kitchen, are a little fortune to one who already has more to do than her strength is equal to. There are many other ways that a man of kind heart and sympathetic nature can contribute to make her labor lighter. Little inventions for this and that are useful, and a little attention and assistance, instead of sitting in the corner evenings and smoking a pipe (more of this subject after awhile), or reclining at ease reading, while the worn-out wife toils relentlessly till bedtime, will be very helpful. With the husband's assistance, and by judicious management in never letting the work run behind, kitchen slavery, even to those to whom it is distasteful, may be shorn of much of its unpleasantness, but never of a certain amount of toil—repulsive toil at that. But as to toil, we all must toil in some way, and why not? In its noble aspects, it is one of the best blessings of the Infinite, and homely toil, no matter how humble, if respectable, may be ennobled by the toiler.

That is the way we kitchen slaves try to reason; it's a good way, too, but no amount of reason can quite obliterate or annihilate our innate loves. No amount even of servile toil can forever blot out that desire and fascination that lingers round the brush of the painter and lures her (her, the kitchen slave) to drop the gridiron and the scrubbing brush, close the door, and seek her chosen niche, and there, with brush and palettes, trace out with deft fingers, and soul and spirit shining in her eyes, the beautiful reflections of creative genius. Ages of reason and servile toil could not destroy this love—it is immortal.

How often, O my sisters of the pen and frying-pan, do we, while scrubbing and rubbing with all the force of our physical being, turn with longing to the little desk at the window, where is waiting at our leisure our faithful pen, and long to trace on paper some pleasant thought, some sweet remembrance, or some hope of the future, which, mayhap, might live in glowing words to do good, long after the polished floor has moldered into decay! How often, as the busy hands are kneading the great batch of bread, our thoughts are far away, weaving poetical pictures and golden fancies, "like apples of gold in pictures of silver," that might comfort and console many a burdened heart; but, like the galley slave, there is no rest—the bread must be made, the fiat is inexorable. Oh, this physical nature! how the mind is made subservient to its commands! What slaves we are to appetite and fancy and fashion, and what an irretrievable loss of precious hours in ministering for their demands. I wonder if any of us stop and think seriously of the useless toil we perform for our physical wants—not our needs. If we only thought it, our needs are few. Many a young housewife thinks her kitchen floor must be always kept white and clean enough to eat off of. Just such foolishness wears out many a woman in her prime, sows the seeds of disease and makes age a terror. The floor is not intended for a table, but to walk on; clean it once a week and always sweep clean, and do no unnecessary work that will overtax strength.

If I were to "deliver myself of some of my tiresome personal experiences," I would "rise to remark" that in the kitchen I have come off, if not conqueror, then it may be considered a "drawn battle," having achieved a triumph in two important points—bread-baking and washing. By the two methods my work in these essentials is diminished more than one half, which all will agree with me is a signal victory. The art of making quickly good, light and wholesome bread every time is not known to every housekeeper, and was only arrived at by me after many years of patient endeavor and experiment—the receipt was given in a former number of the RURAL; but if any one desires it, will cheerfully send it.

My washing machine is the Missouri steam washer—have used it with Gillett's washing crystal a long time. It is simply a blessing over the old way of washing by main strength and ignorance.

A man or a woman of refined sensibilities, who is forced through circumstances to stoop to drudgery of whatsoever kind, must necessarily crush and smother their spiritual growth, must crucify their innate longings, and starve that part of them that is immortal. By the inexorable laws of man (I shall not say Nature) this fact seems inevitable, there seems to be no way out of it. If some great reformer would arise and point a way out of this kitchen and household drudgery, every woman would do him homage. Do we not, O sisters of the kitchen! realize or dimly feel what under more kindly circumstances our possibilities might have accomplished? But it is vain to think of it. Let us rather do the battle of life bravely, not looking back, but in patience remembering "Whatsoever thy hand findeth to do, do it with thy might," at the same time take courage and wisdom from the ripe experience and brave letters of the band of toilers so kindly given in the RURAL PRESS.

Arcadian Hights, March 14.

"The Excursion."

[Written for the RURAL PRESS by F. H. A.]

EDITORS PRESS:—Truly, this is a world in which opinions differ. When I read "C. P. N.'s" interesting but caustic essay in the RURAL of March 19th, I could not but recall other and more favorable criticisms on Wordsworth's writings, and feel like sending you a few thoughts of my own.

Christopher North (the *nom de plume* of John Wilson of *Blackwood's*) has said there is no other such song as Wordsworth's, and that his poetry stands distinct in the world.

Of "The Excursion," R. H. Dana has said: "It is the noblest poem in the English language since Milton's 'Paradise Lost.'"

I will confine myself in the following remarks to mention of it alone, though there are others which I would like to speak of.

Were it only for the healthy optimism of "The Excursion," it would be a valuable poem, and the character of the "Wanderer" is an ideal the emulation of which would make a very different world. But independent of both these, the descriptive power of the book, the deep insight and breadth of mind displayed, are such as to afford high intellectual profit and enjoyment.

How any one, though more especially a lover of nature, could call this poem "a dreary waste" passes my comprehension. "C. P. N." makes some extracts from it and asks "who would dream" that they were "originally written in blank verse?" I for one have certainly never read such flowing and musical sentences in anything but blank verse. As Mr. Gladstone said of the new "Locksley Hall," that he was as much impressed with the form as with the substance, so do I feel about "The Excursion."

Almost the first striking thought we meet on opening Book I is that this poet, who *can* sing, pays tribute to the poets who *do not* (as did Oliver Wendell Holmes not long ago). He says:

"Oh, many are the poets that are sown
By Nature. Men endowed with highest gifts,
The vision and the faculty divine,
Yet wanting the accomplishment of verse.
* * * * Strongest minds
Are often those of whom the noisy world
Hears least."

Then begins the description of the "Wanderer's" life—that man so deep, so mild, so charitable, so far-seeing and so full of faith. He was a country lad, and from communion with Nature

"long before his time
Had he perceived the presence and the power
Of greatness, and deep feelings had impressed
So vividly great objects, that they lay
Upon his mind like substances."
* * * * * *
"He had felt the power
Of Nature, and already was prepared,
By his intense conceptions, to receive
Deeply the lesson of deep love which he,
Whom Nature by whatever means, has taught
To feel intensely, cannot but receive."

I cannot read the following without a reflex (faint enough, alas!) of the rapture and fervor and exaltation that must have glowed within the poet's soul when it emanated from his brain:

"Early had he learned
To reverence the volume that displays
The mystery, the life which cannot die.
But in the mountains did he *feel* his faith,
All things responsive to the writing, there
Breathed immortality. * * Low desires,
Low thoughts, had there no place, yet was his heart
Lowly, for he was meek in gratitude.
* * * he learned
To look on Nature with a humble heart,
Self-questioned where it did not understand,
And with a superstitious eye of love."

What pathos and poetical expression is contained in these words:

* * "O sir! the good die first,
And they whose hearts are dry as summer dust
Burn to the socket."

All rules admit of exception, but there is not a few that have not felt the truth of this.

Now comes the tale of Margaret. How many lessons we are taught by her gentleness and constancy.

"She was a woman of a steady mind,
Tender and deep in her excess of love;
Not speaking much, pleased rather with the joy
Of her own thoughts."

"Not speaking much!" What a sermon lies in those three words! Margaret's story brings the tears, but not bitter ones. Somehow, as if already permeated by the optimism of the poem, we feel it may have been all for the best—her grief and even her weary and hopeless waiting. Instead of being rebellious, we have a sense of gentle, if sorrowful, resignation.

A little on and we read that

"consolation springs
From sources deeper far than deepest pain
For the meek sufferer. Why, then, should we read
The forms of things with an unworthy eye?"

The "Wanderer" then refers to a moment when gazing on some tranquillizing aspect of Nature when

"all the grief
That passing shows of Being leave behind,
Appeared an idle dream, that could maintain
Nowhere dominion o'er the enlightened spirit
Whose meditative sympathies repose
Upon the breast of Faith."

A few more lines and we come to the close of Book I. In the next we are introduced to the "Solitary"—a skeptic, who is the only discordant element in the poem, and yet who, paradoxical as it seems, only adds greater harmony to it. And now we are given the aspects of life from an optimistic and pessimistic point of view, which are full of keen interest and instruction.

In Book IV, "Despondency Corrected," occurs one of the most exquisite passages in all literature, though all the intervening pages are characterized with high and reflective images of thought and fancy.

"I have seen
A curious child, who dwelt upon a tract
Of inland ground, applying to his ear
The convolutions of a smooth-lipped shell,
To which, in silence hushed, his very soul
Listened intensely; and his countenance soon
Brightened with joy, for from within were heard
Murmurings, whereby the monitor expressed
Mysterious union with its native sea.
Even such a shell the universe itself
Is to the ear of Faith, and there are times,
I doubt not, when to you it doth impart
Authentic tidings of invisible things.
Of ebb and flow, and ever-during power
And central peace, subsisting at the heart
Of endless agitation."

The strain from this on to the close of this Book IV is almost equally elevated and noble. Although apprehensive of what the editor will think of my many quotations, I cannot refrain from giving some of these lines:

"The man
Who in this spirit communes with the forms
Of nature, who, with understanding heart
Both knows and loves such objects as excite
No morbid passions, no disquietude,
No vengeance and no hatred, needs but feel
The joy of that pure principle of love
So deeply, that, unsatisfied with aught
Less pure and exquisite, he cannot choose
But seek for objects of a kindred love
In fellow-natures and a kindred joy.
Accordingly, he, by degrees, perceives
His feelings of aversion softened down.
A holy tenderness pervades his frame;
His sanity of reason not impaired,
Say, rather, all his thoughts now flowing clear,
From a clear fountain flowing he looks round
And seeks for good, and finds the good he seeks,
Until abhorrence and contempt are things
He only knows by name. And if he hear
From other mouths the language which they speak,
He is compassionate, and has no thought,
No feeling which can overcome his love."

The volume contains five more books. It has not been my fortune to find in any of them "dreary wastes." I am only too thankful the poem was recommended to me for perusal, and it is one I will always prize. However, we do not always look at things from the same standpoint, and the reader will perhaps be safe in not accepting wholly either adverse or favorable criticism, but in judging for him or herself.

Woman's Work—Wash Day.

[Written for the RURAL PRESS by JEWELL.]

In these uneasy days of unsettled labor questions, when the poor seem to be getting poorer, and the rich richer; when toil seems to be the heirloom of so many, and all mankind are reaching out for ways to live without overworking; when families in the city are unable to send their washing to the laundries as too expensive, and unwilling to employ Chinese, as it is against their principles, yet have a dread of doing it at home—because of the trouble; when farmers' wives and daughters, too far from washwomen or laundries, are obliged to toil at the washtub, and have such hard, dirty clothes, too, to wash, (men's and boys' clothes usually), what a boon to womankind would be a good washing machine. While I have never until now owned one that I could work, I have advocated them as good and useful, any of them, from the one standpoint of helping to relieve women of their hardest work, not alone in the saving of labor, but the help that the men usually give in "turning the machine."

It is not beneath their dignity to do that, because too hard for a woman to do, while it would be unmanly to rub the clothes on a board—as if that, too, was not too hard for most women.

Long have I pondered this subject; many the "fluids" and different soaps and ways of easy washing tried, until I thought I knew all about it, or all that was worth knowing, and still there was hard work in washing, make it as easy as you can. But a few weeks ago, a gentleman in Michigan sent me one of his patent washers to try, and lo! I not only save time and labor but soap, too! I am trying it a little longer, to see if it will do all that is claimed for it, that is, washing feather beds and carpets whole. I tried men's and boys' pants, which were made clean and easily done, with no wringing or handling but the putting in water and taking out to hang up. I am not agent for the washer, so will not blow too big a horn for it—only I feel that if it is what I hope and think it, our farmers' wives will want them—especially as the cost is low also.

But I started to tell how it is possible washing day can be made easy *without* a washer. This is my way of planning it: After breakfast is over I put on the boiler, which the boys fill full of cold water, in which I put five cents' worth of borax and a third of a cake of soap (I am using borax soap now); then I put in my sheets, pillow slips and such cleanest white clothes, filling the boiler full, though it is better if not too full. Cover tight, keep a

good fire, and go at other work. By the time dishes are washed, house in order, and vegetables prepared for dinner, the clothes are at boiling heat and ready to take out, rinse and hang up, for they need no rubbing if you have poked them well while in the boiler. The rubbing of the rest is easy (as rubbing goes), and the time saved considerable, to say nothing of one's strength, soap, and wear and tear of garments. With a wringer (and small boy to turn it), set tubs with drain attached, and water convenient, washing day is a holiday compared with old methods of washing. And now with my new washer I save another proportion of labor, on garments one cannot boil.

Los Gatos.

Thoughts on Home.

[Written for the RURAL PRESS by "NESTLING."]

Few things are more pleasing to the eye than a nice and pleasant homestead. How easy it is to be neat and clean, to arrange the rooms with the most graceful propriety. How easy to invest our homes with the spirit of good taste, which can never be seen without being fully appreciated. But true elegance exists chiefly in the spirit which pervades the apartments, and their arrangements by the tasteful hands of the occupants.

Home should be the seat of happiness, especially for men and boys, for if they do not find it there, they will seek it elsewhere.

Every one at home should be kind and obliging, so that in after years, when we are all widely scattered, we can think with kindness of the home of our childhood, where thoughts so pure and aspirations so noble and lofty, were instilled into our minds and characters as to ever leave their impression upon our after lives.

Crow's Landing.

Nimrod Nuisance.

The following letter to the Fresno *Expositor* is piquant enough to go farther:

HUGHES CREEK, March 8, 1887.

MR. EXPOSITOR:—A gang of men came up here a few days ago, along with Sheriff Meade and Frank Lewis, a hunting, and how they did hunt. We never saw hunting up here before. They shot at everything, but did not get much mutton. One of them went out on the trail of a sheep with a Siberian bloodhound, and when he got down to my sheep camp, he saw my pack-saddle sticking up through the snow, and he must have thought it was a deer's head, for he shot about 15 Winchester rifle balls into it, and tore it all to pieces. His dog showed himself to be a pointer, as he pointed for home as soon as the shooting commenced. The young man who tore up my saddle said he was a brother to County Clerk Williams, but I expect he wasn't.

Frank Lewis spent most of his time hunting red deer a few miles from here; and another one by the name of Austin, so Frank Lewis said, shot the schoolmarm's dinner bucket to pieces, and liked to have broke up the school. Jim Meade cooked some bread up here and the boys have been trying to shoot a hole through a piece of it ever since they left, but it flattens bullets. They say that one of them was a guard by the name of Woodward, or something like that. They called him major, and he followed the dog tracks where Williams went on a still hunt for my pack-saddle, for about two hours, and thought he was after a bear. I tell you they were a holy terror; and if they come up here again we want to know so we can move out of the way. It's no fun, I tell you; and dinner buckets and pack-saddles costs money. If you hear any one talking about coming up to hunt, please tell them there ain't no game up here any more. It's all gone over the mountains. I tell you, you've no idea what a set of hunters they were. Tell Frank Lewis we propose to dismiss school if he comes here again. No more at present.

Yours truly, —— ——.

HIDDEN DANGERS.—Young man, are you a total abstainer from intoxicating drinks? If not, will you take time to ask yourself seriously and candidly why you are not? Do you drink because you are fond of the drink and its effects? Then your reason is the same as that of the hopeless drunkard. Do you drink because you dislike to admit to yourself or others that you fear that you are in danger of losing your self-control? Let me ask you if you have not partially lost it already. Are you sufficiently independent to be safe? If in the absence of temptation you experience physical discomfort or mental depression from which you find relief in drink, you may be sure that the destroyer has begun his work upon your physical organization. Stop it while you can. It may already be more difficult to do than you suppose. A trial may bring to you very unexpected and unwelcome evidence of your danger. Remember that it is by neglecting to use the power to refrain that the power is lost; that self-confidence with an underestimate of the power of habit, and of the stealthy, undermining power of alcohol, are the hidden rocks upon which the great mass of drunkards have made shipwreck of life.—"*Observer*" *in Red Bluff Sentinel.*

SIXTY-FIVE varieties of lettuce are known to horticulturists.

YOUNG FOLKS' COLUMN.

Always Tell the Truth.

[SELMA'S first story for the RURAL.]

Mrs. Gray was a lady living in the town of G——. Her husband was a rich merchant. They had an only child named Jamie. He was a bright, pretty boy about five years old. Jamie had a little pet dog named Jip. Jip and Jamie were very fast friends.

One day Mrs. Gray told Jamie, before going out to see a neighbor, not to go into the parlor for fear he or Jip might get into mischief. Mrs. Gray had a beautiful China basket which stood on a little table in the corner of the room. After Mrs. Gray had gone out, Jamie longed to play marbles on the soft carpet in the parlor. Jamie did not want to let Jip into the parlor, for he was afraid he would break something, so he took Jip to the kitchen door and put him out. While Jamie was closing the door Jip slipped back again unnoticed by Jamie. Then Jamie went into the parlor, and of course Jip followed. Jamie crossed the room where a beautiful rug lay in front of the sofa. He sat down on the rug and began to play marbles. He had played a long time, when suddenly he heard a crash, and looking up he saw Jip on the table and the beautiful basket of flowers on the floor broken. Jamie was so frightened he could not move. When Mrs. Gray came home she found her little boy very pale, and asked what was the matter. Jamie burst out crying and told his mother what had happened. Then Mrs. Gray kissed her little boy and said: "I will not punish you, Jamie, for you have told me the truth." Jamie grew to be a noble young man, for he always told the truth.

Pleasanton, Cal.

A Story About a Donkey.

Teddy and Neddy were two pretty little donkeys, which had been given to May and Gerty by their godfather. They always came running up to them when they went into the paddock where they were kept, and Teddy would rub his nose against May and grunt for some bread or apples, which he liked very much; and they would both follow May and Gerty all about the field, and put their heads over the stile with a sorrowful look when they went away.

One day May and Gerty were going to ride, so Bob, the garden boy, put the saddles on the donkeys and brought them around to the porch. May was ready waiting there, so she ran out and threw her arms around Teddy's head and stroked his long ears, and then she said, "Would you like a bit of bread, my dear?"

Teddy picked up his ears at that, and seemed to understand; so May ran to the kitchen and cried, "Cook, cook, please give a poor hungry donkey a crust."

Cook smiled, and took some bits of bread from a plate and gave them to May, who got back to the porch just as Gerty came down.

"Where's Teddy?" cried May, seeing that he was not at the door. "He was here just now, and I have got this bread for him. Where can he be?"

"I don't know," said Gerty; "isn't he on the lawn?"

"There's Bob, I'll ask him," said May, running across the grass toward the garden boy, who had been among the shrubs cutting a twig for her. "Bob, where's Teddy?" cried May; "we can't find him."

"I left him at the porch, miss," said Bob, opening his eyes very wide when he saw no Teddy there. "What's become of him?"

"It's so odd," said May; "he must have hid himself for fun. I must go and tell auntie."

"Auntie!" she cried, as she ran into the drawing-room; but she suddenly stopped and burst out laughing, for there, standing on the rug, was Teddy, with his saddle on, looking as pleased as possible, very likely thinking that he had got into a beautiful new stable.

Gerty came in to see what May was so merry about, and she, too, laughed heartily, as you may suppose.

Mr. Teddy, you see, finding the doors open, had thought he should like to walk in; and when he was there he did not seem to want to walk out, for Bob, who was called in to lead him away, could not get him to move. Naughty Teddy planted his feet firmly on the ground and would not be led out.

"He must have the stick," said Bob, and he lifted May's riding whip.

"Oh, no, no, please," cried May. "Don't, Bob, please; he'll be very good. Come with me, Teddy dear, there's a darling!" and she held up a bit of bread just in front of Teddy's nose.

Ted moved a step forward and May moved a step backward, still holding the bread just too far off for him to reach it, and then Teddy moved another step, for he could not resist the bread; and so at last May coaxed him out of the room and through the hall to the porch, saying, "You shall have it, Teddy dear, when you are quite good." When he had his feet really on the gravel walk, May patted him and said: "Now you may have it, Teddy; you didn't know any better, did you, dear?"

But after this Teddy was carefully watched when he was brought to the porch, lest he might take a fancy again to visit the drawing-room.

The Foolish Friends.

In the depths of a forest there lived two foxes, who never had a cross word with each other. One of them said one day, in the politest fox language:

"Let's quarrel."

"Very well," said the other; "as you please, dear friend. But how shall we set about it?"

"Oh! it cannot be difficult," said fox number one; "two-legged people fall out, why should not we?"

So they tried all sort of ways, but it could not be done, because each one would give way. At last number one fetched two stones.

"There," said he, "you say they're yours, and I'll say they're mine, and we will quarrel and fight and scratch. Now I'll begin. Those stones are mine!"

"Very well," answered the other, "you are welcome to them."

"But we shall never quarrel at this rate!" cried the other, jumping up and licking his face.

"You old simpleton, don't you know that it takes two to make a quarrel any day?"

So they gave it up as a bad job, and never tried to play at this silly game again.

GOOD HEALTH.

How to Promote Health.

After all that has been stated of the effects of the atmosphere in high altitudes or at the level of the sea, the influence of forests and ocean, of sea coasts and interior places, humidity and dryness, cold and heat, the winds, electricity and ozone, and no matter what of other conditions, the paramount considerations for the promotion of health are an abundance of pure air and sunshine and outdoor exercise. Without these, no climate is promotive of health or propitious for the cure of disease; and with them, it is safe to say, the human powers of accommodation are such that it is difficult to distinguish the peculiarities of any climate by their joint results on the health and longevity of its subjects.—*Bell's "Climatology."*

The above is well and truly said, and the most important of the three requisites enumerated is "outdoor exercise." Going to the springs, going to the seaside, or going to the mountains is all good for invalids; but going into the garden in any reasonable kind of a climate and working in the ground with the hoe or spade moderately, but with sufficient outlay of strength to produce a reasonable degree of perspiration, for one, two or three hours daily, will do more to promote health than either medicine, springs, seaside, or mountain. We have tried it and know of what we write. We have witnessed the beneficial effects of moderate exercise of that kind—work—in others, and we know that it is of more value and infinite less cost than the best mineral springs that ever existed. The great trouble with by far the large majority of invalids is lack of exercise of the right kind—of *work* that will make the sweat start and flow freely for one or two hours daily.

The writer once left San Francisco and spent nine months in traveling, and came back but little better than when he went away. He then put on a suit of old clothes, took a hand trowel, got down upon his knees, and dug in his garden, in this city, three or four hours a day, and in six weeks completely regained his health.

Another instance: A young man left London, England, a few years ago, and spent one year in traveling, reaching this city in the spring of the year, but little better than when he started. Having been told of our own experience, he went up to Healdsburg, in this State, went on to a ranch and commenced work, when he was not able to use the hoe or spade more than two hours out of the 24; but he persevered, and in less than six weeks he was able to do a fair day's work. He returned to this city a well man, and went directly to London. He dug his health out of California soil. Thousands of invalids might do the same thing if they would; but to most invalids it is hard medicine to take, and they neglect it, oftentimes to become confirmed invalids, or to meet an untimely death. Exercise—not with dumb-bells, or in any way in the gymnasium, but in the open air, in the form of *work*, turning up the soil, is the best promoter of health that can be devised.

PREVENTIVE MEDICINE.—Dr. C. R. Illingworth thus writes in the *Med. Press:* One of our great aims as physicians is to prevent disease; another is to cut short its course when developed. Our power in these directions finds full scope among that class of disorders now generally recognized as depending upon the reception, growth, and development in the tissues of micro-organic life in one shape or another. By the continual suppression of the growth and development of these forms of cell life, we may, indeed, hope at length to erase the names of the diseases they cause from the category of those "ills that flesh is heir to." The diseases I refer to are scarlet fever, diphtheria, measles, whooping cough, rheumatic fever, chicken-pox, small-pox, syphilis, hydrophobia, yellow fever, *et hoc genus omne.*

DOMESTIC ECONOMY.

Tested Recipes.

[Written for the RURAL PRESS by M. W. C.]

Mrs. H.'s Chocolate Cake.—One cup sugar, half cup butter, half cup water, one and a half cups sifted flour, one small teaspoon yeast powder, two eggs beaten separately, one square (or two sticks) of chocolate, grated. Vanilla flavor, half teaspoon. Bake it in a flat, or in several small, square tins, and ice.

Almond Icing.—Blanch one-fourth pound or less of sweet almonds (simply remove brown skins, after pouring on boiling water). Pound half of them to a paste, wetting with a few drops of bitter almond. Stir this into an icing of one beaten egg-white and one cup powdered sugar. Spread on the fresh cake. Having reserved a few almonds blanched but whole, cut them into strips, stick in the top of the frosting, and dry slightly in the oven. No harm done if this frosting browns a little in the oven.

Orange Butter Pudding.—Remove all the *white* skin and seeds from the peeled oranges (four or five), slice them and stir into the batter, made of two large cups flour, two small teaspoons of yeast powder, two beaten eggs, one pint milk or water, pinch of salt, same of mace, all beaten well. Bake in a buttered dish; or may be boiled two hours in a tin mold.

Orange Meringue Pudding.—Slice a dozen sweet oranges, pour on a custard made of yolks of three or four eggs, 1½ pints of milk, sugar to taste, and slightly thickened with a very little cornstarch rubbed smooth in a spoonful of cold water. Heap the whites, beaten stiff and sweetened, on top, and, if this is in the pudding bake-dish, set in the oven a moment to tinge the meringue.

Mrs. C.'s Lemon Pie.—Water enough to fill a deep pie plate. Boil it, thicken with one large tablespoon of cornstarch rubbed into a little cold water; add two beaten yolks, one cup of sugar, and one large lemon. Bake the paste separately on the pie-tin, pour in the warm custard, beat stiff the two whites and sweeten, drop these on and brown very slightly.

San Francisco.

COMMON POTATO SALAD.—Small potatoes, which are wasteful to peel and cook with larger ones, should be sorted out for salads. Boil them in their skins, and (while warm) peel and slice them thin. Mince chives, parsley and onion very fine and strew it over the potatoes in the salad-bowl. Sprinkle with salt and pepper, pour over two or three spoonfuls of oil, and moisten the whole with vinegar and water mixed, that it may not be too sour. Chives or onions may, of course, be omitted. Several things are mixed with potato salad, both for flavor and appearance, such as pickled beetroot sliced, a fresh cucumber sliced as usual, a Dutch herring cut up small, or a few sardines minced. Only one of these things, be it understood, and it should be mixed with the potatoes before the oil and vinegar.

ORANGE ROLEY POLEY.—Make a paste as if for apple dumplings, and roll it out in one sheet about like a medium-sized platter, and not much over an inch in thickness; over this lay slices of orange from which the peel and seeds have been removed, roll carefully and steam in a cloth for two hours. Serve hot, with a sauce made of two tablespoonfuls of flour, three of sugar and a heaping teaspoonful of butter; rub these together till smooth, then pour boiling water over the mixture, stirring it all the time, so that as the butter melts the flour and sugar will dissolve, and the sauce will be perfectly smooth; flavor with half a teaspoonful of vinegar and some grated orange-peel. A larger quantity of sauce can be made, of course, but this proportion should be observed.

PLAIN CHOCOLATE.—Scrape one ounce (one of the small squares) of any plain chocolate fine; add to this two tablespoonfuls of sugar, and put it into a small saucepan with one tablespoonful of hot water; stir over a hot fire for a minute or two, until it is perfectly smooth and glossy, then stir it all into a quart of boiling milk, or half and half water; mix thoroughly and serve immediately. If the chocolate is desired richer, take twice as much chocolate, sugar and water. Made in this way, chocolate is perfectly smooth and free from oily particles. If it is allowed to boil after the chocolate is added to the milk, it becomes oily and loses its fine flavor.

SOFT CORN BREAD.—A heaping pint of good, fresh cornmeal, piece of lard size of small egg, half teaspoonful of soda, buttermilk to make thick batter, one teaspoonful of sugar, salt to taste; beat two eggs till very light; stir into the batter. Then from a boiling teakettle pour in water till batter is very thin. Bake in earthenware and serve in same dish with spoon.

CHICKEN PIE CRUST.—One egg, six tablespoonfuls of melted butter, one cup of sweet milk, two cups of flour, three teaspoonfuls of baking powder. This makes just enough for a pie made of one chicken. After the chicken is cooked, put it, with gravy slightly thickened, into an earthen baking dish; stir the ingredients mentioned above together, and spread over the chicken.

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☞ *See Advertising Columns.*

The Week.

The air is still full of the sounds of activity and progress. Not only are the different counties keeping up a steady hum of their public meetings, which result in organization of Boards of Trade for the purpose of making local resources better known, but there is now arising a sound of enterprise which is made up of many pleasant notes. These are of town, village, and neighborhood improvements, of new wagon roads piercing the inaccessible but valuable country in all directions, and of new street railways by horse and inorganic motors of different kinds, which are much needed in our growing towns where each citizen's premises are measured by acres and distances therefore magnificent. New bridges are doing away with the uncertain and sometimes dangerous fords and ferries. Systems of sewerage by iron-stone pipes are being put in in many towns, and this improvement in sanitary conditions cannot well be overestimated. All these and other similar public enterprises are supplemented by the steady course of individual building which keeps our mechanics busy and the lumber market active. Beyond and beneath all these are the railways which are opening up hitherto inaccessible regions in all parts of the State, and are preparing the way for hosts of new settlements where little sound has been heard save that of beast and bird. All these delightful signs of activity and progress betoken the growth of the State. They are surety to the thousands who are now coming that their predecessors believe in the land of their adoption.

A little rain would be very acceptable. The prophets say April will bring plenty. It sometimes acts very generously. The glorious weather of the last few weeks has drawn heavily upon the stores of moisture in the soil, and the growth of feed and grain is rather thin in some parts. A good rain would be pleasant to all who have crops to grow or land to cultivate.

School Savings Banks.

Among the most noticeable blemishes of our national character at present is the proclivity toward intemperance and waste. How closely one is connected with crime, and the other with poverty, is needless to indicate. Temperance and thrift are a pair of correlatives. We link them together, for it is obvious that whatever promotes one is sure to help the other.

A movement has been started in England, where these twin evils are even more alarming than in our land, closely associated with the public-school system, for the purpose of teaching the children the importance of thrift. It has taken the shape of School Savings Banks. In a recent number of the Adelaide *Observer*, published in Australia, we find the circular of the English Department of Education in advocacy of Savings Banks, from which we take the following as equally applicable to the children and school system of this country:

To learn how to economize slender resources, how to resist temptation to needless expense, and how to make reasonable provision for future contingencies, is an important part of education. Such knowledge is calculated to protect its possessor from much trouble and humiliation, and to help him greatly in leading an honorable and independent life. In mature years, it is often found difficult to acquire this knowledge, and still more difficult to apply it to practice. But in a school much may be done to render its acquisition easy to children, and to show to them the advantages of economy and foresight. * * * Economy, however, is a habit, and is to be learned, like other habits, rather by practicing it than by listening to demonstrations of its importance. During the school life of a child there arise many temptations to the heedless and wasteful expenditure of small sums, and many occasions on which, if the opportunity were offered, such sums might be usefully and wisely saved. The child who is helped to deny himself some trifling present gratification, who is encouraged to save by degrees a few shillings, and who finds this sum available for the purchase of necessaries, for helping his parents at a time of family misfortune, or ultimately for his own equipment on leaving school for work, has received a practical lesson in forethought and self-restraint, which will probably abide with him for life.

The readers of the RURAL who care to explore the workings of this economic system will find in the April number of the *Nineteenth Century*, 1886, an article on the subject replete with gratifying results. The School Savings-Bank method is a French invention. "For 40 years previous to 1874," says the writer of the aforesaid article, "School Banks in France were so far a failure that in 1874 they might have been counted on one's fingers; since 1874 they have multiplied so greatly that they are now to be counted by thousands. In 1885 there were 23,980 School Banks, with 491,160 depositors, whose deposits amounted to 11,934,268 francs."

According to the Adelaide *Observer*, the principle has been favorably received in the schools of New South Wales, and is about to be introduced into the school system of South Australia. It is satisfactory to note that the principle is receiving the attention it deserves in the Eastern schools. It is worthy the consideration of all our School Boards.

So far as we are aware, only two objections have been filed against the system. One is that teaching thrift in the schools will tend to make misers of the children, but in a country where waste and prodigality is the besetting sin, the miserliness developed in the schools will be too small to set up as the basis of an argument. The other is the difficulty in working the system, but the fact that the system is complete, simple, and working satisfactorily wherever tried, ought to be a sufficient reply. It may add a little to the work of teachers, but the head master of the largest and most successful penny savings banks in Liverpool states that with "500 weekly transactions it did not occupy the teachers of each department more than half an hour per week."

Beet Sugar.

It is announced as possible that the sugarie of the Standard Sugar Company at Alvarado may not resume operations this year. It will be remembered that the works suffered by a boiler explosion some weeks ago. The chief owners in the enterprise now state that they have not fully decided concerning the future. It is generally known that the value of sugar is very low. We have already stated that the running of the factory at a profit at all has been because of some very economical processes invented by Mr. Dyer which secured a very high percentage of sugar from the juice. It may be now that even by using these processes the margin of profit is too narrow to warrant the owners in making further investment. If this should prove so, we shall regret it. The fact of cheap sugar is of course an acceptable one generally, but the possibility of home-grown sugar, which should render good returns for thousands of acres of beets and furnish employment to large numbers of our own citizens, was also pleasant to contemplate. It was also possible, as has been stated in the RURAL, that California beet sugar might also cut quite a figure in the sugar supply of the whole country. Conditions at present do not seem very favorable for the demonstration of this fact, though it is quite within the possibilities that it may be called for soon. With the excellent results set forth by the experience at the Alvarado factory, it would apparently require but little to encourage the extension and multiplication of such factories in this State, and for this reason we have always hoped that the pioneer concern might be kept in operation to show the way for our own protection should any effort be make to raise sugar prices. Of course, the public can hardly expect a few capitalists to keep a factory in operation at their own expense for such a wide motive as this. The favors which were asked of Congress in the interest of beet-sugar makers were not granted, and thus the interest which has enjoyed the most liberal fostering by foreign governments, until it reached a good basis, has been allowed in this country to shift for itself, and if it should die, the event will be the occasion for rejoicing by all in the imported sugar interest.

The possible closing of the Alvarado sugarie will not be regretted in California alone, but everywhere on this continent that independence of tropical sugar-cane has been longed for. Readers will remember the quotations which we have made from the government reports on "northern sugar" which expressed the fullest appreciation of the importance to the whole country which might be involved in the Alvarado enterprise. It is and has been for some time the only beet-sugar factory in operation in the United States, notwithstanding the fact that in the aggregate sugar production of the world the beet exceeds all other sources of sugar. In Germany, as may be generally known, the Government long ago adopted the policy of paying a bounty to exporters of beet sugar, which has resulted in a vast output in that country. The London *Grocer* says that the beet-sugar crop this year will be the heaviest ever raised and gives the following estimates for each country for the present season, as compared with the product for 1885 86, as follows:

	1886-87, tons.	1885-86, tons.
Germany.....	1,050,000	825,000
France.....	500,000	300,000
Austria.....	525,000	380,000
Russia.....	475,000	440,000
Others.....	150,000	90,000
Totals.....	2,700,000	2,135,000

This shows what can be done with the beet by enterprise and Government aid. Of course at present we are indirectly enjoying the results of this movement, because the vast production of beet sugar in Europe pushes back the tide of tropical cane sugar upon our markets, but how long we can enjoy this combination of circumstances cannot be prophesied.

Naturally, the possible closing of the Alvarado sugarie attracts the attention of those interested in industrial questions, and especially those of an agricultural bearing, in the whole country. Prof. W. A. Henry, of the State University of Wisconsin, who visited California last summer, recently wrote to the *Bulletin*, of this city, on the subject, and we quote this paragraph:

I fear the explosion and damage to the machinery may cause the collapse of the only beet-sugar factory in America and so add another to the already long list of failures in the effort to profitably extract sugar from the beet. All the more, too, do I regret to see a failure, if it is a failure, of a factory in California, for in that State of all others in the Union, can beet-sugar making be made a success if once it can but gain a fair degree of confidence from capitalists and have fair showing and honest treatment in the manipulation of the beet and its product by skilled and scientific men in the factory. * * * There is not, I venture to assert, a single vital point in the beet-sugar question, from a California standpoint, that Mr. Dyer, the superintendent of the Alvarado factory, and his son, the chemist, have not satisfactorily solved. Working alone, with antiquated machinery saved from the wrecks of other adventures both in California and the East, the wonder is not that they have made but little money, but rather that they did not long ago give up in despair. If their factory was equipped with such machinery as can be seen in the best factories of the Old World, even with the Sandwich islands pouring cheap sugar through the Golden Gate, they could still make a reasonable interest on the investment. If Germany and France can drive the sugar of the tropics out of many of its best markets, California can furnish all the United States can ever use.

It is hard to let a small accident like a boiler explosion give the death-blow to an industry which can thus be described, and we sincerely hope that such may not be the outcome of the present uncertainty in the affairs of the factory.

Next!

The Hydrocarbon-Burner agent and Hayfork fiend having had their day, the traveling swindler next in order is the "Wire-Fence" man. Like his fraudulent forerunners, he is anxious to do you great favors—"being it's *you*"—if you will but sign your name to some sort of an order, contract or memorandum for him. If you do sign it, it will turn up within a few weeks at the bottom of some kind of an obligation to pay money. We again repeat the old, old counsel: *Never put your signature to any piece of paper for a stranger.*

FRUITS AND FLOWERS IN OAKLAND.—A fair for the display of flowers and seasonable fruits only is to be held in Oakland, commencing on Monday, the 18th of this month, and continuing through the week. It will be under the management of Wm. R. Bentley, who has secured Cavalry hall for the purpose. Leading florists, gardeners, and nurserymen, of Alameda county, have given assurances that they will take part; and it is hoped that all residents of Oakland having choice flowers in pots or boxes will exhibit them, and thus let the general public know what is being done in the way of floriculture. Eight cash prizes will be given for the best displays in the various classes. A ground plan can be seen, and space for exhibits secured at the office of the *Times*, in Oakland.

HORSE SHOW AT SAN JOSE.—A horse show was held at the San Jose Fair grounds, March 19th, under the auspices of the Santa Clara Valley Agricultural Society. There were exhibited nearly 140 animals, including fine trotters, draft and carriage horses. The occasion brought together 600 or 700 visitors, who seem to have been highly gratified with what they witnessed, and the *Mercury* winds up a somewhat detailed report by saying that "the affair was in every particular a success."

NUT-GROWING.—We are obliged to defer until next week our full report of the discussion on nut-growing at the Horticultural Society meeting last Friday. The report will contain many interesting points of experience, especially in the growth of almonds.

DRAFT POULTRY.—Horses, mules and oxen will probably continue the most useful and popular draft animals for general purposes, but a Michigan man has a turkey that has been trained to draw a sled.

THE silkworm eggs, which the State Board expected from Italy, have arrived in good order,

Capt. James B. Eads.

[Died at Nassau, West Indies, March 6th, Captain James B. Eads.]

Human nature is the same in kind, but how different in degrees. Some men are born with great potential powers, others with but little. The more favorably endowed may be divided into two classes—the men of thought and the men of action. The men of thought are those who discover great ideas, general truths, universal laws, and are the men of genius in art, science, or political economy, but as a rule do not possess gumption enough to buy a beefsteak or a suit of clothes. The next class are the men who organize ideas, truths, and laws; they concretize the abstract, particularize the general; they know how to put ideas to work, organize science into railroads, steamships, mills, bridges, and general utility. They are the busy men of affairs who spread out their organizing genius upon the soil, weave and spin for the human race, span our rivers, organize fire and water, iron and wood into a new sort of animated creature.

Captain Eads was a fine example of the latter class. His father was one of the early pioneers of Scott county, Iowa, and there are old men that remember the poor, barefooted boy that used to play in the streets of Davenport, without advantages of any kind, walled in by environments that would have crushed the average boy into hopeless obscurity. But this boy had the right sort of metal in him, and, though compelled to work hard and struggle against poverty and humble position, he was a great student and devourer of books. Few men ever had to fight against such discouraging reverses, and fight so long, and yet from sheer pluck and an indomitable, fearless will, he fought himself to the head of the great army of engineers and made himself a name his country may proudly honor.

When only 20 years old he was a clerk on a Mississippi steamer, and by indefatigable business energy, had amassed a fortune at 37 he could have handsomely retired upon. But the war broke out, and his knowledge of the great water-ways of the country was so great that the Government called upon him to devise means for their defense. The important service rendered by the fleet of splendid gunboats he built is a part of the history of that memorable struggle. At the close of the war, at the age of 45, he could have retired with a record sufficient to gratify the ambition of most men; but the bounding vitality and energy of his nature could not rest, hardly knew how even to take respite in recreation. We next find him for four years engaged in constructing the great iron bridge across the Mississippi opposite St. Louis—a bridge that has been pronounced by the greatest engineers the finest specimen of metal arch that has yet been erected. The piers of this mighty work rest on caissons sunk 110 feet below the surface of the river, upon which rest the steel arches that span this immense body of water. The most daring engineers and river captains of the day regarded the enterprise as impracticable and a waste of time and money. He next attacked the problem of opening a channel at the mouth of the Mississippi 20 feet deep, that was almost universally regarded by the best engineers as preposterous; but the success of his jetties and the principle upon which he wrought—that of using the river to scour out its own channel—has not only been recognized as practical but has been put into practice elsewhere. He then planned the great ship railway across the Isthmus of Tehuantepec—a scheme that has been so amply illustrated in the RURAL, through our own editorials and the copious correspondence of his ardent friend and admirer, L. F. Moulton, of Colusa county, that our readers are quite familiar with it. After securing certain grants and privileges from the Mexican Government, he worked incessantly for several years to persuade the Government of the United States to guarantee the interest for 15 years on two-thirds of the capital of the company; but being unable to convince Congress of the practicablity of the scheme after a vast expenditure of patience and learned dissertation, he at last consented to accept a simple charter of incorporation, which was granted by the Senate only ten days before his death. Those who had the pleasure of seeing the great engineer on his visit to this State in 1879, stout and hale, apparently in the vigor of manhood, will hardly realize that he was 67 years of age. Whether this splendid scheme dies with the daring genius that conceived it, the future alone can determine; but it is almost certain that all effort to consummate the work will have to be postponed.

Capt. Eads, whose portrait we give on this page, was at one time Consulting Engineer of the State of California, having been appointed to fill the place made vacant by the death of Col. B. S. Alexander.

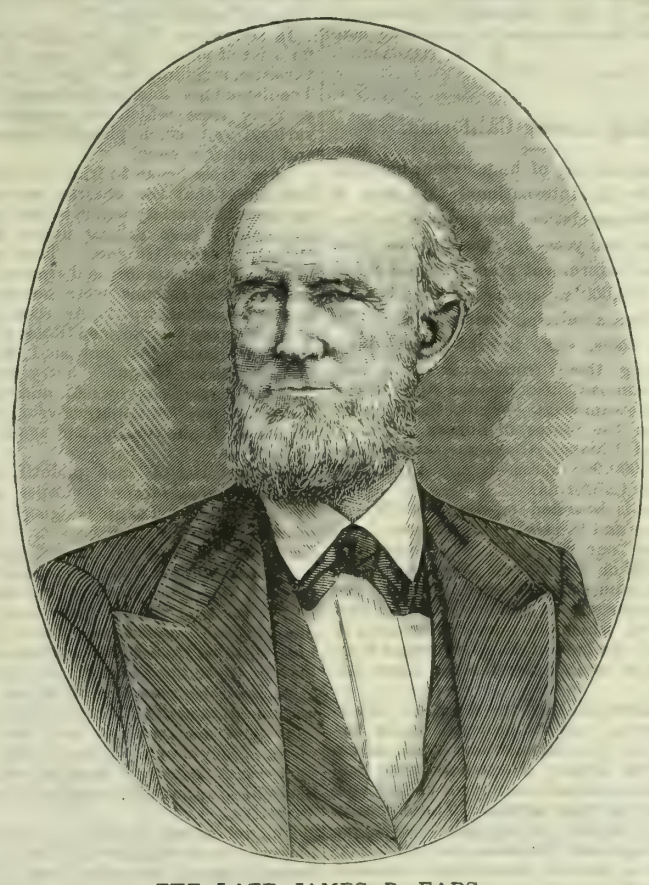
The Millionaire Nation.

The Chicago *Tribune* recently printed an interview with Senator Allison, in which he expressed the opinion that an extra session of Congress will have to be called, not later than October, to grapple with the surplus question. As Mr. Allison is Chairman of the Senate Appropriation Committee, and has a fine opportunity for acquiring knowledge of the financial condition of the Government, his opinion carries weight in financial circles as well as in Congress. He says the receipts of the Government for the next fiscal year are estimated at $410,000,000, while the expenditures will not exceed $364,000,000 in all, leaving a surplus of $46,000,000. This assumes, however, that the Treasury will purchase during the year $47,000,000 of unmatured bonds for the sinking fund. If this be not done, then the surplus will be $93,000,000. To this must be added whatever surplus the Treasury will have on the 30th of June next, which amount will, however, be small if all the three per cent bonds are recalled. After the first of July the accumulation will be steady.

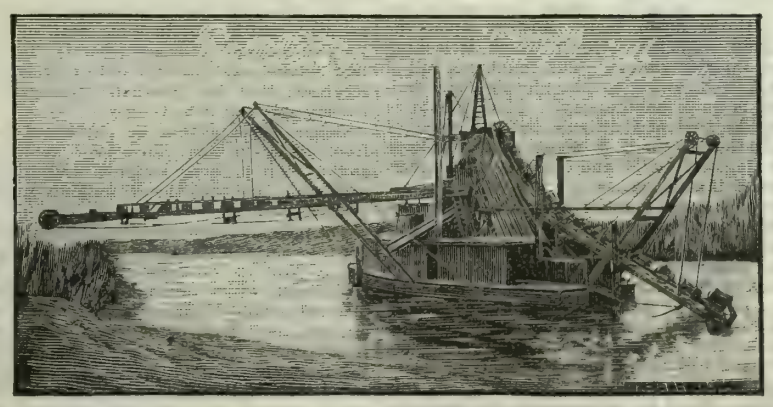
As to the advisability or inadvisability of calling an extra session for the reduction of Government revenue, we at present have no concern; we merely call attention to this exhibit as a fact unprecedented in the history of nations. While all the Governments of Europe find it a difficult problem to raise money enough for current expenses, Uncle Sam is so rich that his surplus means is an elephant to him. What better evidence of the bounding health and prosperity of the country? The Republic is built on a rock. The gates of hell cannot prevail against it. *Esto perpetua.*

DUTIABLE VALUE OF WOOL.—A decision that concerns, directly or indirectly, all persons interested in the wool business, is reported this week from Washington. It appears that the Collector of Customs at Philadelphia submitted for the decision of the Treasury Department a question as to which shall be considered the country of exportation in the case of certain Persian wool, which arrived at Philadelphia from London consigned to local merchants. The Appraiser estimated the dutiable value of the wool at its market value in London on the date of exportation to the United States. The importers protested against this action. They represented that the merchandise was purchased at Bagdad for shipment at Bassorah to a port in the United States as directly as the means of transportation would allow, London being the port of transhipment, as there is no direct communication between Bassorah and Philadelphia. They held, therefore, that the market value of the wool at Bassorah on the date of exportation is the value to be estimated for the purpose of fixing the classification of the wool. Acting Secretary Fairchild writes the Collector at Philadelphia that under the provisions of the wool schedule the duty on wools is dependent upon its "value both at the last port and the place whence imported to the U. S." The functions of appraisers are therefore, he says, restricted to finding the value at the last port of shipment.

THE lumbermen of Guerneville are preparing for a busy season.



THE LATE JAMES B. EADS.



THE NEW DREDGER "AJAX."

New Dredging Machinery.

We illustrate on this page the new dredger "Ajax," recently built for Mr. Geo. F. Smith, of Stockton, Cal.

It is entirely a Stockton production, and one of which that city will have no cause to be ashamed. The dredger has now been working for two weeks at Wakefield's, and, we are informed, is giving entire satisfaction; having been repeatedly timed to be discharging clay at the rate of 220 cubic yards per hour.

The Ajax is almost a duplicate of the last dredger designed by Mr. Ferris for levee-building on Roberts island, with such modifications and improvements as have suggested themselves in the two years it has been working.

The hull, oval in plan, is 36 feet 10 inches by 60 feet over all; it has 4 solid fore and aft bulkheads, and a well-hole 5x12 feet at one end for the bucket ladder.

The main engine is 10x24, operating by bevel gearing, and a 3½-inch vertical shaft, with a 4-sided upper tumbler with 21-inch sides. This engine works also a gypsy shaft for swinging, and the conveyor that carries the mud ashore. A steam hoist with 6x11 engines raises and lowers the bucket ladder. The buckets, at 4-foot centers, have a struck capacity of 5 cubic feet and are speeded to deliver from 18 to 20 a minute, according to the character of the material being handled. They are of boiler iron, with a 5-inch steel nosing. The links are of wrought iron, with cast bushings. The lower tumbler is hexagonal, on a 4-inch shaft.

The conveyor, projecting 72 feet from the center of the boat, consists of a 5-ply rubber belt 36 inches wide; running over iron drums at each end, and intermediate iron friction rollers at 3-foot centers. Ratchet and pinion on each side of conveyor ladder give means for taking up the slack of the belt, and adjusting the drums to maintain them parallel.

This conveyor is the important feature of the dredge. It is entirely satisfactory in its working and delivers its material, as nearly as may be, in a dry state upon the levee. It was feared the rubber belt would be shortlived, but a 4-ply belt ran continuously for over two years on the Roberts island dredge before it needed replacing.

The boiler is of the marine type, 52 inches by 10 feet 6 inches, with 3-inch tubes and 14-inch flues; and burns about 1400 lbs. of steam coal in a day of 12 hours. There are three pumps aboard—a hand forcepump for washing boiler, a plunger pump for boiler feed, and an Evans steam pump to throw a jet of water into the delivery hopper when digging in any very tenacious material. All three are connected with the boiler.

Water tanks below deck serve to trim the boat and furnish a supply for the boiler. The dredger cuts by swinging on a center spud 16 inches in diameter, and moves forward from 8 to 10 feet at each fleet.

The Roberts island dredger, of which the Ajax is an improved copy, handles steadily 700 yards per day of 12 hours, in the stiffest and most tenacious clay in which it has been worked; and ranges from that average to 1500 yards per day in soft peaty mud.

The Ajax was built by contract by Farrington, Hyatt & Co., of the Stockton Iron Works; their bid having been very considerably below that of a San Francisco firm with whom they were in competition; a fact that certainly pays handsome tribute to the facilities of Stockton manufactories. The hull and framing were built by D. Jarvis, who has succeeded the late S. H. Davis, as proprietor of the Stockton Shipyard.

This type of dredger can be built for about $12,500, and we are informed can be relied on for a monthly average of 26,000 yards in any material met with in the overflowed lands near Stockton, delivered 50 feet ashore at a hight of 10 or 12 feet above the ground line.

THE SWARMING RODENTS.—According to the *Southlander's* correspondence, the Rabbit Inspectors for New South Wales, last October, reported 1914 men employed in rabbit destruction, a number 300 less than the inspectors deemed necessary. The officer in charge of the Rabbit Department expressed a strong opinion that the compulsory provisions of the Act must be stringently enforced. The scalps and carcasses reported to have been destroyed during the month numbered 605,900.

THE VINEYARD.

Misconception of the University Viticultural Work.

University Experiment Station Bulletin, No. 67.

The report of Wine Committee of the late Viticultural Convention, as recently published in the city papers, calls for some comments on my part. The summary manner in which that report disposes of the samples sent from the University Laboratory shows that the committee, or those of its members who agreed to the concluding paragraph, simply misunderstand the purpose for which the samples were submitted to them, as well as the objects and methods of our work.

That a number of the samples were made from vines overloaded and therefore unable to fully mature their crop, which would of necessity produce "green" wines, was elaborately set forth in my published report, as well as in a bulletin previously published. Both publications were sent at the time to each of the members of the committee, as well as to every member of the Grape-Growers' Association. It should therefore have been well understood that these wines were sent to the Convention, not for comparison with the selected best samples, whether of producers or of the Viticultural Commission, but in order to give persons interested an opportunity to judge for themselves of the result of long-pruning and therefore of the overloading of certain varieties. The present season one-half of the same vines will be pruned long, one-half short, and will then show the contrast between the results of a restricted and of an excessive production.

Had I anticipated that the committee would do its work so much more hastily than has been the case in previous years under the able management of Mr. Pohndorff, I should certainly have restricted the samples sent to a few choice ones that happen to have come to hand. For, in the work we have undertaken to do, the aim is not to select choice lots of grapes for the production of extra samples, but to determine the prominent peculiarities of each kind of grape in the several grape-growing regions, the grapes being sent for that purpose by the producers, without any selection on our part. We make the wines as the grapes sent will make them, presuming, as a rule, that the grower sends his best representative sample.

I regret to note that the committee, from some cause, appears to have gone out of its way to condemn summarily the making of small samples. It is admitted on all hands that large samples represent more correctly the large scale outcome than small ones can do. But it is quite certain that the prominent characteristics of any locality, as to its production of sugar or alcohol, acid, tannin, body and color are identically shown by small- as well as large-scale samples, and these, the natural possibilities of each soil and locality, are what our experiments primarily aim to determine. That wines made in 5-gallon packages develop differently from those made in 1000-gallon tanks, is abundantly well known, and the committee appears unnecessarily emphatic on that point. The difference, however, does not even go so far as to prevent the accurate reproduction of the characteristic bouquet, but is felt mainly on the tongue. It will hardly be maintained that the above data thus *accurately* verified, are not of sufficient importance to justify all the work bestowed by us upon their ascertainment. That a competent winemaker will know how to make allowance for the unavoidable differences, and can come to a close estimate of the outcome on the large scale from samples made on a small scale, is abundantly shown by the results obtained from samples made under the most unfavorable conditions, in 1884, with the able co-operation and close criticism of Mr. Pohndorff.

It is easy to say that larger samples ought to be handled at the University Laboratory; but it is not easy to see how, in that case, the natural and legitimate demand for the kind of information now furnished by our work, could be supplied, since neither space nor funds at command would be remotely adequate for the handling of samples exceeding the capacity of 50 gallon tanks. I gravely question, that to fill up our working space with 15 or 20 large fermenting tanks and casks, would give any satisfaction to the large number of growers who desire some definite information regarding the general character of the wines they can expect to produce in their respective localities. To satisfy this demand, I consider by far more important than to "reproduce accurately" the results of large-scale work, which can be very fairly predicted from the outcome of small-scale fermentations.

I must insist that it will require a more deliberate and well-sustained utterance on the part of the grape-growers of the State, to convince me that the system of investigation now adopted by the viticultural laboratory of the University, should be materially changed for the greater good of the greatest number, or that the field of operations should, as a whole, be transferred to the hurly-burly of a large winery in vintage time. There is a certain class of experiments that can be made under these circumstances, but the difficulty of maintaining definite conditions, such as are required for cogent experiments, is very great, on account of conflict with the pecuniary interests involved, and where these are concerned the experiment goes to the wall. Moreover, it is the relatively inexpensive method of small-scale experimentation that most pertinently suggests the proper line of experimentation and progress on the large scale.

I think it is also to be regretted that while stating the full number of samples sent by the University Laboratory at 56, the committee omits to state that less than half of these (27) were actually examined by them. This fact, as well as the very different judgment pronounced by one member of that committee (whose opinion as an expert is especially entitled to respect), after a personal, leisurely examination of a large number of samples in the Laboratory cellar itself, about two weeks before the Convention, suggests that a closer insight into the actual work of the University Laboratory should be had before coming to sweeping conclusions. E. W. HILGARD.

Berkeley, March 26, 1887.

Settling Lower California.

A colonizing scheme of huge extent has been set on foot by the International Company of Mexico. This association, incorporated in Connecticut about two years ago, has obtained from the Mexican Government grants of land covering nearly 100,000 square miles, with concessions to settlers, admitting their needed outfits of clothing, tools, etc., free of import duty, and exempting them from taxes for a long time. The company also has the right to run railroads and steamboats. While these grants lie largely in the States of Sonora, Sinaloa, Guerrero and Chiapas, about one-third of the land—say 18,000,000 acres—is in the northern part of Lower California.

This tract is bounded on the east by the Colorado river and the Gulf of California, and extends from our State line to the twenty-eighth parallel or thereabout. The coast-line is broken by numerous harbors and inlets, the two most important of which are the Todos Santos bay, on which the town of Ensenada is situated, and the bay of San Quentin, a magnificent harbor some miles further down the coast.

It is in this region that the company means to begin carrying out its projects, under the direction of Geo. H. Sisson, whose headquarters are now at San Diego. The whole tract has, it is said, been carefully surveyed, and is now only waiting for the settlers. The company already has a steamer plying once a week between San Diego and Ensenada, on Todos Santos bay; and a railroad connecting Ensenada with Yuma will probably be constructed within a twelvemonth.

C. B. Turrell, a gentleman well known in connection with the S. P. Co. and the N. O. Exposition, is one of the commissioners of the International Company of Mexico. He has lately come back from a trip to the region spoken of above, and has been telling a *Call* reporter about it. He says that the soil is rich and fertile and capable of producing all the fruits which flourish in the southern portions of this State. The valleys run for the most part east and west, and hence are accessible to the ocean fogs which are carried inland, throw down their moisture upon the hills and produce a verdure which is lacking in our interior valleys. The country is full of springs, and, owing to the nightly fogs, irrigation is quite unnecessary. The climate is much like that of California, and the recorded observations of the U. S. Signal Station show it to be singularly mild and equable. The average rainfall is 21 inches.

In reply to the question why a section possessed of such advantages has remained so long unpeopled, Mr. Turrell said: "For the simple reason that it has been cut off from the rest of Mexico by the Gulf of California and the Colorado river. The 500 inhabitants of the section have been absolutely without communication with the rest of the world. Their products they have had to consume themselves, there being no market for them. A country in this condition offered no inducements for immigration; and so it remains unpeopled, save by a few Spanish and American families who live a life of Arcadian simplicity and happiness. The country will grow anything. The date palm flourishes with peculiar luxuriance, and bananas can be raised in limitless quantities. Another thing I may say is that the enormous ranches which have proved so great a drawback in California are here impossible. Small valleys are the rule, and sections of land cut off by mountains from other sections preclude the system of extensive holdings. I look upon this enterprise as one of the most important ever engaged in, and am certain it will be a great success."

ANOTHER HUMANE SOCIETY.—Santa Barbara has organized a branch of the S. P. C. A., whose articles of incorporation were probably filed on the 22d ult. We note thankfully the spread of the movement for promoting kindness to animals; and its tendency should be to make us more considerate of the feelings of fellow-men, as well as of the lower creation.

WEARING THE GREEN.—The Yreka *Union* assisted in the celebration of St. Patrick's day by printing on bright green paper its entire edition for March 17th.

Cherries in Court.

J. M. Bassford, the Solano county fruit-grower, lately sued John Rock, the famous nurseryman of San Jose, for damages, which the former claimed he had sustained through a certain lot of cherry trees purchased of the latter turning out to be of a variety other than that represented and guaranteed. The facts, as brought out at the trial and summed up by the court, are substantially as follows:

Mr. Bassford, who lives near Vacaville, has for many years made a specialty of raising an early variety of cherries, which he markets to advantage and in advance of those grown in other localities. This particular variety he and others in his neighborhood called by name the "Early Purple Guigne."

In December, 1879, he applied to Mr. Rock for a lot of young cherry trees of two or more varieties, including the "Early Purple Guigne." The defendant sold and shipped to him 300 yearling trees which he claimed were of that variety, and which plaintiff received, paid for and planted as such.

These trees began to fruit in 1884, and Bassford found that the cherries were quite different from the variety which he and his neighbors had so long been raising under the name of "Early Purple Guigne." They were inferior in size and appearance, and ripened much later, and for these reasons were nearly valueless to him as a market fruit. As soon as he made this discovery he informed Rock of it, claiming that the latter had not sold him the true "Early Purple Guigne" cherry tree. The defendant insisted that he had, and requested him to let the trees fruit another year, which plaintiff did with like results, and again renewed his claim.

In the winter of 1885 plaintiff grafted said trees with scions from his other trees, called by him "Early Purple Guigne," but left one branch on each tree intact. These uncut branches produced fruit in the spring of 1886.

The case turned upon the single question of fact: "Which of the two varieties is, or is either, the true 'Early Purple Guigne'?" The plaintiff, and several witnesses produced by him, testified that the variety previously raised by him are so known, and have been recognized as such in the counties of Solano and Napa, and on Sacramento river, and have been cultivated and marketed as such for 20 years or more. They described the cherry as ripening very early, as being of firm texture and full or medium size, but little smaller than the Black Tartarian.

The defendant, in giving the history of the nursery trees which he sold to plaintiff, testified that he cut the scions from a large tree in the orchard of one Geiger, near San Jose, and that said Geiger represented to him that it was the "Early Purple Guigne;" that he budded the last block of seedling cherry trees remaining in his nursery in the fall of 1878 from those scions, and that he shipped the 300 trees from that lot in December, 1879.

J. Q. A. Ballou testified that about 1858 he imported from the East, jointly with D. T. Adams, various kinds of fruit trees, among others a lot of "Early Purple Guigne" cherry trees; that Adams retained a portion of each importation.

Mr. Newhall, an experienced nurseryman, testified that he obtained his stock of "Early Purple Guigne" cherries from D. T. Adams; that Adams was a careful and experienced nurseryman; that he (Newhall) propagated that variety and sold it to Geiger.

Geiger testified that he purchased the tree from which Rock cut his scions from Newhall as the "Early Purple Guigne," and raised and marketed the fruit therefrom for a number of years as such.

The defendant also testified that in January, 1880, he shipped to Robert Williams, near Penryn, a part of the same lot of young cherry trees from which were taken the 300 sold plaintiff; while Williams testified that in his orchard, near Penryn, he had planted cherry trees propagated from the orchard of C. W. Reed, in Yolo county, which the latter designated "Early Purple Guigne," and that the following year he had procured 20 trees from a San Jose nurseryman, probably Rock, of the same name to fill up his orchard; that both lots of the trees have fruited and have borne the same variety, which he recognizes as the "Early Purple Guigne."

C. W. Reed testified that he has in his orchard at Yolo the "Early Purple Guigne," which he imported from Ellwanger & Barry, of Rochester, New York; that he had seen another cherry, which sometimes went by the same name, but which was not true to name, being much larger and more valuable for market.

After the action was commenced, Rock sent to Bassford's orchard and obtained a quantity of the fruit raised upon the reserved limbs of the trees in question. This fruit, leaves and branches, were compared with the fruit from the Geiger tree referred to by expert nurserymen, and some of the fruit preserved in alcohol also produced in court.

These experts uniformly testified that the samples were of the same variety and were the true "Early Purple Guigne." Several also testified that they were identical with a tree planted by defendant from said stock and identical with fruit called "Early Purple Guigne" raised from importations by other nurserymen from Eastern nurseries of recognized reputation and good standing.

Judge Spencer's opinion in the case (filed March 26th, in the Superior Court at San Jose) closes as follows:

"Upon the whole, I am of the opinion that the variety sold by defendant is the true 'Early Purple Guigne,' as known and named by nurserymen of standing and reputation throughout the United States, and that the plaintiff was misled not by the defendant, but by the fact that in his locality the name had by accident or through ignorance become applied to a different and more valuable variety."

New Agricultural Districts.

The Agricultural Districts Act, as amended by the last Legislature, makes the new districts to consist of counties as follows:

No. 2—San Joaquin, Merced, Stanislaus and Tuolumne.
No. 4—Sonoma and Marin.
No. 6—Los Angeles, San Bernardino and Ventura.
No. 7—Monterey and San Benito.
No. 8—El Dorado.
No. 14—Santa Cruz.
No. 15—Tulare and Kern.
No. 16—San Luis Obispo.
No. 17—Nevada and Placer.
No. 18—Alpine, Inyo and Mono.
No. 19—Santa Barbara.
No. 21—Merced, Mariposa and Fresno.
No. 25—Napa and Solano.
No. 26—Amador and Calaveras.

At another time we will give a full list of the districts, both new and old.

JACK RABBIT GYMNASTICS.—It is not so very hard to believe that "the damage the meek, humble, sanctified, sleek and slippery jackass rabbit inflicts upon Tulare is beyond calculation," and that "it is only a question of time when these jacks will take the county if something is not done to kill them off." But we have to confess ourselves just a wee bit skeptical as to the literal accuracy of the following, for which the *Register* is responsible: "You have all seen pictured in your old geographies how monkeys will tie their tails together, swing across a stream from a tree-top and thus form a monkey bridge for the whole tribe to pass over on. Well, jack cannot do that, but he can make a rabbit step-ladder out of himself and eat the bark off trees three times as high as he can reach. Two stout jacks stand side by side upon each side of a tree, two more take their places crosswise upon their backs, others follow in the same manner, building themselves up after the manner of a cob-house until the last can reach the branches of the tree where the young bark doth abound. We can produce witnesses who will swear to the truth of the statement."

Our New Street No., 220 vs. 252.

Upon first occupying our present location on Market street, we found our premises numbered 252, and the next door east of us (toward the water front) is numbered 218. This discrepancy of numbers has confused people coming up to our office from the ferry-landing. One-fourth of a block above us on Market street, appear the numbers 400 and upward, there being no numbers used from Nos. 300 to 400. Parties coming down the street and seeing the numbers 400 and upward, knowing our number to be 252, have naturally concluded that they had a block or two to walk before reaching our place, and have frequently passed by our office to suddenly find themselves abreast of numbers 200 and odd, and have to retrace their steps. Much confusion has occurred in this manner. For this reason we have adopted No. 220 [Market street], hoping in a measure to avoid the difficulty, and trusting that some day the city authorities will take the matter in hand, and see that Market street, in our locality, is properly numbered.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

WATERPROOF FIBRE OR PLANT BED MUSLIN.—Circular from the Waterproofing Fibre Co., 36 South St., New York.—This material is designed to take the place of glass in hot-beds, cold-frames and other germinating appliances. It costs about one-tenth as much as glass, is lighter and easier to handle, will not break as glass will, permits a proper ventilation to the plants, and by its peculiar odor renders the premises very distasteful to insects. It is stronger, heavier and tougher than ordinary muslin, or muslin prepared by the home treatment of linseed oil. Three grades are made, varying in thickness, and from three cents to nine cents per yard. It has received the highest testimonial from Peter Henderson and other horticultural authorities. As a protection for the tobacco plant at the South, it is said to be the best preparation in use. Gardeners are requested to examine this material. We believe they will be pleased with it. The firm also makes waterproof cloth of various weights, wagon covers, hay caps, etc.

Cheap Money for Farmers.

Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

NO MORE SNUFFING, HAWKING, OFFENSIVE BREATH--NO MORE CATARRH!

CALIFORNIANS

WANT

CALIFORNIA TESTIMONIALS

AND NONE OTHER!

When they pay money for a prescription they demand some assurance of a good result. No prescriber warrants. Our National Disease has been neglected and allowed to run its course, because, heretofore, there has been no guaranteed cure. Years of patient toil and research have brought forth the **Only Absolute Cure for Catarrh, Neuralgia, Nervous Headaches, Catarrhal Deafness, Sore Throat, Inflamed Tonsils, Bronchitis, Granulated Lids, Weakness of the Optic Nerve, Diphtheria** and **Quinsy.** We have proved that the "CARBOLIC SMOKE BALL" and the "DEBELLATOR" will cure, by the numerous Home Testimonials published, and which we will be pleased to send to any address.

THE PEOPLE

ARE DONE WITH EXPERIMENTING!

WORTHY THE SCULPTOR'S CHISEL!



THE WORDS OF PRAISE!

THE LETTERS OF COMMENDATION

Received from those who have Tested the Merits of the

CARBOLIC SMOKE BALL!

WE WARRANT OUR CLAIMS!

(Which are constantly being verified by Home Evidence.)

Catarrh—Cured in from three to six months; warranted.

Asthma—Cured in nearly every case; always quickly relieved.

Bronchitis—Cured in every case; warranted.

Hay Fever—A cure guaranteed when taken in time.

Catarrhal Deafness—Cured in from three to six months.

Eyes—Granulated lids, weakness of the optic nerves, etc., cured within two months.

Neuralgia and Headache—Stopped after the third application.

Diseases of Children—Whooping cough cured; croup relieved in five minutes and cured within two days.

Throat Troubles—Quinsy quickly relieved and thoroughly cured, as are inflamed tonsils and ulcerated sore throat.

Snoring—Three doses each night before retiring cures this trouble.

Colds—In the head, cured by a few applications; fresh colds on the chest, in 12 hours.

THE COMPLETE TREATMENT includes the "Debellator" package, unequaled as a blood purifier, which must be used in Catarrh when there is a dropping of mucus into the throat, biliousness, or where the bowels are irregular or there are stomach or kidney disorders. It should be used in all cases of Catarrh, Asthma, Bronchitis, Hay Fever and Ulcerated Sore Throat. Price of the complete treatment, $5; "Smoke Ball," $3; "Debellator" package, $2. One complete treatment is generally sufficient.

MAIL ORDERS receive careful and prompt attention. State disease or symptoms in writing, addressing MAIN OFFICE. Complete treatment mailed on receipt of price, $5, and four cents in stamps. "Smoke Ball," $3 (four cents in stamps). "Debellator" packages, $2.

"CARBOLIC SMOKE BALL" CO., 652 Market St. {Cor. Kearny, Rooms 7, 8, 9, 10} San Francisco.

STOCKTON COMBINED HARVESTER & AG'L WORKS

Stockton, Cal.

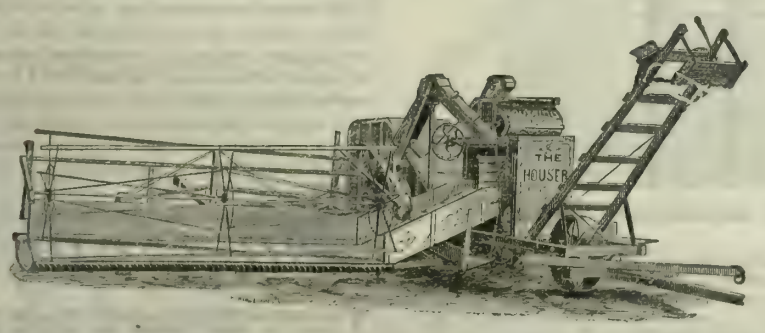
The only Manufactory that makes a Specialty of Building

COMBINED HARVESTERS.

PULL and PUSH, BELT and GEARED.

Houser, Minges, Shippee, and Powell

THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.

THE BEST KNOWN AND MOST POPULAR.

800 in Field Use and No Failures.

NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

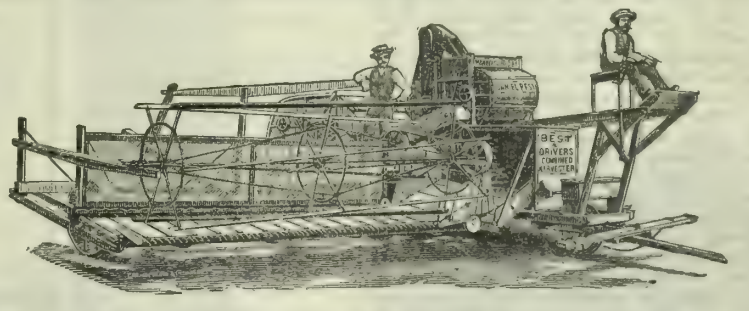
They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.



Best & Driver's

IMPROVED COMBINED HARVESTER

For 1887.

—MANUFACTURED BY—

DANIEL BEST, San Leandro, Cal.

Standard size, 14-foot cut. Cylinder, 30-inch. Separator, 41-inch. Belt and Geared. Will make any size ordered.

These machines are made of the best material. Frame of Separator is made of hard wood and all timber used in their construction is thoroughly kiln dried.

HAS STEEL SHAFTING AND GEARING.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same, making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvesting expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** attached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field.

They cut, thrash clean, and sack grain for less than $1 an acre, against $3.50 an acre the old way of heading and thrashing. They require three to four men and fourteen horses for a 14-foot cut, and an additional horse for every additional foot cut.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

I also desire to call your attention to my latest improved Cleaners that I make for any and all Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz.:

45-inch for 18-foot cut and over.
40-inch for 14 to 18-foot cut.

This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly clean the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner, mounted on Harvesters, that will thoroughly clean foul grain and make it merchantable.

Write for Circulars. For further information, prices, etc., address

DANIEL BEST, San Leandro, Alameda Co., Cal.

Pit Pumps for Deep Wells.

Deep-well pumping is one of the things that has been very greatly perfected in this State. The water-raising apparatus has been improved in order to admit of profitably lifting water for irrigating purposes, and for more valuable crops it is sometimes raised 100 feet. Centrifugal pumps are largely used, because where the water is drawn from sand and gravel, more or less of these substances come into the barrels of ordinary pumps and cut them out. There are plenty of good piston pumps, of course, but there are objections to them for irrigation purposes. The centrifugal pumps themselves were at first only applied for low lifts, and it was a common opinion in this and other countries they would only be employed up to lifts of 40 feet or so. The reason of this was that the mechanical impact of the runners, or the rotative energy of the water, was regarded as a principal factor on the pump's effect, and this effect diminished as the relative speed of the runners and the water.

This difference increases as the hight, that is, the speed of the runners, has to be increased accordingly while the flow of water remains the same. At 10 feet the effect of rotative energy is more than a third, at 50 feet it entirely disappears, or ceases to be a factor that need be regarded.

The engraving on this page shows a centrifugal pit pump for raising water from wells. The pumps are arranged on a new method, the suction-pipes entering at the top of the pump, so as to be easy of access. The water being drawn into the top of the pump causes an upward thrust equal to the work, balancing the weight of the driving shaft, so the whole is in equilibrium. The pumps are made single, or compound with two runners, as the hight of the lift may demand, single runners being recommended for lifts to 50 feet, and compound pumps for higher lifts. The compound pumps with two runners run 40 to 60 per cent slower than single pumps, and avoid the excessive speed required for high lifts. The shafting, couplings and bearings are of a special kind, made for the purpose, and of such weight as to balance the water column. These pumps are made from 2½ inches to 12 inches, the casing being strong enough to withstand a pressure of 50 pounds to an inch of area.

A plant similar to that shown in the engraving on this page, having a capacity of 2,000,000 gallons each 24 hours, with a lift of 57 feet, was furnished the California Nursery Company, at Niles, not long since, by the San Francisco Tool Company, of this city, makers of these pumps. A second one has just been shipped to the same parties. Among others of the same kind, the following orders have been filled: One patent pit pump to Henry Bookskin, San Jose, capacity 1,500,000 gallons in 24 hours, lifting the water 95 feet; one to Wm. Farrington, San Jose, with a capacity of 1,500,000 gallons, lifting 70 feet; one to Francis Smith, Santa Clara, with a capacity of 1,500,000 gallons in 24 hours, lifting 50 feet; one to W. A. Aldrich, Aldrich Farm, Athlone, with a capacity of 2,000,000 gallons, lifting 37 feet. They are at present making two compound patent pit pumps for the Alameda Artesian Water Works—capacity, 1,500,000 gallons each every 24 hours, lifting 75 feet.

From these few instances it will be seen that these deep-well pumping plants furnished by the Tool Company are of good capacity and can lift the water higher than it was formerly supposed that centrifugal pumps could.

Stockton Notes.

[Written for the RURAL PRESS by MRS. W. D. A.]

Heavy dews keep the grain moist, though no rain has fallen since March 3d, and the warm weather has brought up late sown, clean and fine. All grain is growing remarkably fast.

The month has been still, sometimes hot, and now that the new moon of the 24th brought no rain, but a damp wind, people anxiously look for the spring showers and predict no wheat, only on summer-fallow. Sacks are correspondingly low and so are the hearts of some who made little last year. Everything a farmer has to sell is low. Beef, butter and eggs pay little to the hand that sends them to market through this spring. To offset this, clothing and groceries are low.

Frost made gardens late, but since the heat of March, peas come forth in ten days and turnips in six. Quick soil-work! Green peas are in the market. Birds made havoc with early cabbages.

A great many small vineyards and orchards have been put out, and some large ones, that are doing finely. One man bought some vineyard land, set it to vines, and then sold so as to make $1200 on his bargain. The best of vineyard land can be bought for $75 or $95 an acre. On the Calaveras river a man cleared $200 on a half acre of peach trees three years old—more than from a 60 acre field of barley. Low ruling of wheat has given fruit-growing an impetus.

This dry year is a grand one for rodents. Squirrels defy smokers, bisulphide, and even skirmish in spite of poison wheat. Bisulphide is most effectual when the ground is wet; smokers don't kill many.

The courthouse plans will soon be back from Detroit, then work will begin. The granite will come from Penryn and the bricks from Acampo, and a 12-foot fence will keep outsiders from giving advice and comments while the 2½-years' work progresses. The $30,000-pavilion will be commenced at once under the active board, with Mr. Shippee at the head.

Stockton, March 26, 1887.

S. F. Girls' Union.

Its History and the Work Before It.

To afford aid and direction to young women who are homeless or strangers on this coast, the "Girls' Union" was started by a few individuals in the spring of 1884.

The first step, after the incorporation of the society, was to secure a house and establish a home; for the projectors were keenly sensible that a true home-life is the saving of woman. The great need of such an institution was at once made clearly manifest, for no sooner were the doors opened than worthy girls and strangers filled the house, claiming the interest and personal co-operation of those in charge; and every succeeding month has gone to strengthen the conviction of its necessity and usefulness.

The second line of work proposed was extending aid, through a "Business Bureau," to the self-dependent. Scores of bright girls, well-educated and equipped for places in the educational or business ranks, come to us; but for such, with a few exceptions, we have been unable to find even standing room in the positions sought.

But these are outnumbered ten-fold by those who seek for manual work, but alas! fall short of the required standard of proficiency. Nearly 600 out of 1000 applicants, the last 18 months, have gone through the sieve. This condition of ignorance and inefficiency, however it may be accounted for, and whether it be willful or involuntary, is the most fruitful source of want and possible degradation with which we have to contend.

The grave question confronts the people of our State to-day: What are we to do with the boys and girls of California who have no definite aim in life, no habits of industry nor training for practical pursuits? However proud we may be of our free schools' excellence, far better leave to corporate and individual enterprise the cost of all above the grammar grade, than have the State neglect the manual training so necessary to three-fourths of her youth, unable to find foothold in the overcrowded ranks of mental and clerical laborers.

The sanction and aid of the State in the establishing of industrial training schools would go far toward removing false sentiment as to the respectability of all honest callings, encourage to the attainment of skill in every branch of manual work, and bring success to our domestic, rural and mechanical industries. We believe that primary industrial education should form part of the regular course in all schools supported or assisted by the public moneys. Then if the State (either independently or through societies working in this line) would take up and carry on this training until each pupil was master of his or her vocation, we should have struck at the roots of poverty, misery, vice and crime.

With the burden of this industrial question upon us, we come before the public. Let the testimony of the hundreds of girls already assisted by the Union declare whether or not it has earned the right to live and go on growing. Let business houses and families in city and country testify as to the average intelligence, aptness, conscientiousness and loyalty to duty which characterize its accepted beneficiaries.

The Union is allied to no sect in religion, to no clique in politics. It antagonizes no other organization, and no other is attempting to do just the same work, making a specialty of domestic education, while seeking to develop the highest type of social and moral character. Thus occupying a unique spot in the progressive work of this metropolis, it needs the sympathy and substantial co-operation of all good citizens, until it becomes quite self-supporting and a permanent factor in the best and purest life of the community. Fifty thousand dollars is wanted for building and equipments, to place the Union on a sure foundation. The generous offer of Mr. E. W. Steele (conditioned on our raising the above amount) puts within our reach the choice lot which we now occupy.

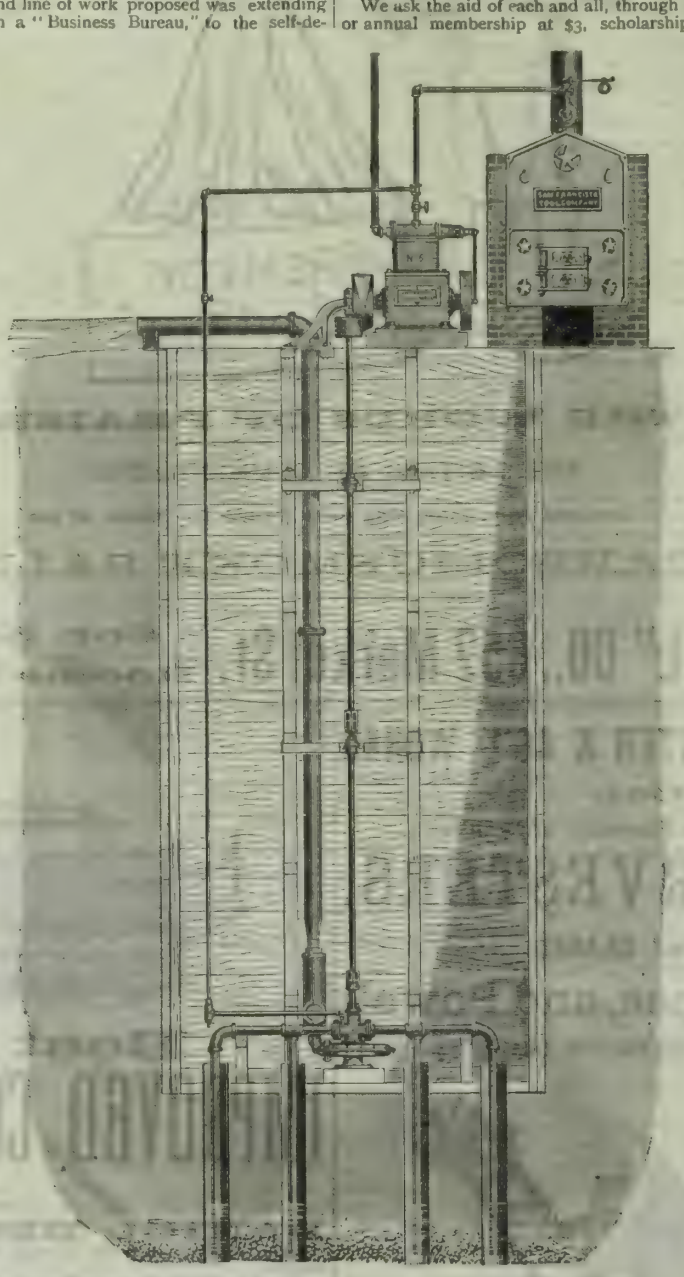
We ask the aid of each and all, through influence, or annual membership at $3, scholarship of $25, life membership of $50 or upward, according to their several ability.

Is any demand more urgent, or any object more worthy? Can the public be better served than in giving young women and girls opportunities for developing moral and material strength, and for intelligent self-support, and in supplying our homes and factories with a class which shall bring to our industrial pursuits skill, loyalty and conscientious energy?

What will *you* do for one to promote its success and insure its prosperity?

Any inquiries or communications respecting the Girls' Union may be addressed to

MRS. C. E. KINNEY, Resident Director,
714 Bush St., S. F.



CENTRIFUGAL PIT PUMPS FOR IRRIGATING WORKS.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
R. G. HUSTON—Los Angeles and San Bernardino Cos.
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SEND for (post-free) list of Scientific and Industrial Books for sale at this office.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents to DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MARCH 22, 1887.

359,764.—PUMP—L. L. Bettys, Mountain View, Cal.

359,674.—ORE CONCENTRATOR—F. A. Herring, Reno, Nev.

359,929.—SNAP-HOOK—Kinsley & Heusser, Taylor, Nev.

359,930.—WINDMILL—J. N. Knox, San Jose, Cal.

359,974.—LAMP REFLECTOR—J. Levy, S. F.

359,932.—CAN-LABELING MACHINE—A. J. Lockhart, Marshfield, Ogn.

359,981.—UMBRELLA DRIP CUP—A. G. Nygard, S. F.

359,886.—FRUIT JAR—Jos. Perkins, S. F.

359,640.—RAILWAY CAR—C. W. M. Smith, S. F.

359,650.—WASH-BOILER—H. H. Tuttle, S. F.

14,177.—TRADEMARK—Eureka Packing Co., Eureka, W. T.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

Our Citrus Fair Extra.

In regard to our Citrus Fair edition, the San Jose *Mercury* of the 19th inst. has the following:

The PACIFIC RURAL PRESS has issued a special 36-page edition, mainly devoted to San Jose, and containing besides a large amount of reading matter, some very well executed pictures of the Citrus Fair, and of a number of the schools, business blocks and private residences of the city. A special feature of the edition is a collection of cuts of some of our leading citizens, such as Mayor Breyfogle, B. D. Murphy, Tyler Beach, C. T. Ryland, James A. Clayton, and Cyrus Jones. These pictures are remarkably true to life. The reading matter of the edition referring to Santa Clara county is from the pen of H. M. Hamilton, of the Empire-street school.

How to Get Strong.

Dumb-bells and horizontal bars, Indian clubs and the trapeze are valuable under certain conditions, but they are detrimental rather than beneficial if the blood is poor and thin and poisoned with bile. Use of the muscles necessitates waste as well as induces growth. If the blood does not carry sufficient nutritive material to repair the waste, loss of strength necessarily follows, and growth is out of the question. Purify and enrich your blood with Dr. Pierce's "Golden Medical Discovery," and then exercise will develop and not consume your physique.

A Peck of Peas (P's).

Here are a Peck of Peas, sweet Peas, if you will. Perseverance, Patience, Promptness, Proficiency, Push and Politeness. Add to these Dr. Pierce's "Pleasant Purgative Pellets" and you will get well through the world without much trouble. The Pellets prevent constipation and surplus of bile, which lead to many different complaints. Inclosed in glass, always fresh, entirely vegetable, prompt, and perfectly harmless. Any druggist.

Dr. Sage's Catarrh Remedy surpasses all.

TRAVELING AGENTS WANTED.

We want a few enterprising, active, faithful men to visit different parts of California and the neighboring States, making the merits of our journals better known to the many people who would be helped thereby, taking orders and receiving payments. Here is a good opportunity to see the country, promote a useful enterprise, and, at the same time, earn a good, honest living. Apply to Dewey & Co., 220 Market St., S. F.

P. S. Readers of this notice can help our common cause by informing persons, likely to become good agents, of this chance.

TO THOSE WHO CONTEMPLATE TAKING UP THE BOOK BUSINESS, we wish to say that we are prepared to do better by them than any other house can afford. We carry the finest line of popular subscription books on this Coast, and by a system of training, can make a success of the most inexperienced. Book Agents, we ask you to look into this. Address for terms, books, and territory, BANCROFT & CO., 607 Market St., San Francisco.

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Views, Opinions and Sentiments of Eminent Writers on Religion and its Relation to Man and Society. Address MISS HARRIET KELSEY, Sec'y, Unitarian Church, San Francisco. Correspondence invited.

THE *Golden Era* has been moved from San Francisco to San Diego, where it will be published under the title of the "Coronado Illustrated Magazine."

A Free Gift.

Any lady living in any town where the Le Boi des Savon, the King of Soaps, is not sold, can obtain a bar for trial by sending her name to the Capital Soap Co., Sacramento.

Money Loaned

On Country Real Estate in large and small amounts, at lowest rates, by A. Schuller, 106 Leidesdorff St., room 3. **

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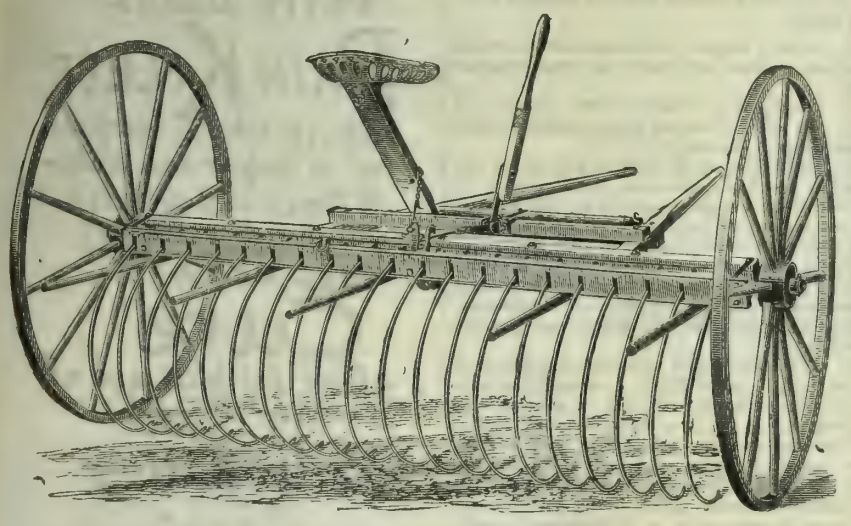
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MANUFACTORY: Benicia Agricultural Works, Benicia, Cal. EASTERN OFFICE: 88 Wall Street, New York.

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HARDWARE and AGRICULTURAL IMPLEMENTS.

THE TIGER SULKY RAKE.



THE TIGER RAKE has been awarded FIRST PREMIUMS at the most important field trials of Hay Rakes in America and Europe.

In the ten years it has been before the public it has distanced all its competitors, and its sales are now double that of any other rake manufactured in the world.

It is the ONLY HAY RAKE in actual use that has proven itself strong enough to stand all the tests of a Self-Dump Horse Hay Rake. It is the BEST RAKE EVER PUT UPON THE MARKET, both for the superiority of its work, its unequaled construction and durability, and the variety of work to which it can be applied.

THE TIGER belongs to that class which are termed "self-operating" or "horse-dump" rakes. In rakes of this class, the labor of discharging the gathered load is transferred to the horse, instead of devolving upon the driver, and the latter is, therefore, relieved of the work which in hand-lever rakes is always more or less arduous.

The discharge is accomplished by simply pressing the foot upon a chain conveniently arranged for that purpose, and the teeth are thereby locked to the rotating axle, and after being tilted and the contents discharged by the movement of the horse, are automatically released and resume their work.

The vital point in every rake is the Steel Teeth. The manufacturers make their own, and are the only Horse Rake manufacturers in the United States who do this. Having found, from long and bitter experience, that it was impossible to rely upon a uniform quality and temper of Rake Teeth obtained from steel manufacturers, they have erected their own Steel works for making and tempering Rake Teeth, and with the best appliances for that purpose, and skilled workmen making nothing but Rake Teeth, we can assure all who purchase our Rakes that they can rely upon these steel teeth being of uniform quality and temper, and that they will stand the severest usage.

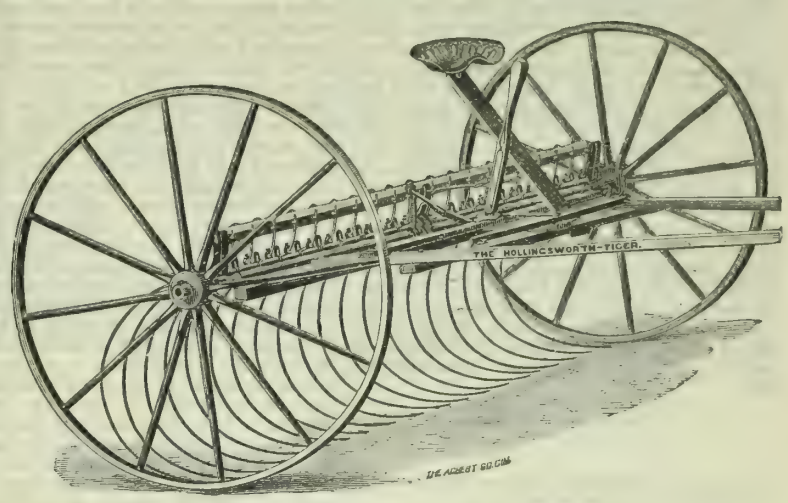
The teeth run lightly on the ground, and are easily adjusted, at the will of the operator, to any desired position, and will rake heavy green hay as well as light.

We trust that no one will be deceived by the many imitations of the Tiger Rake, on the representations of the agents for them that they are "just like the Tiger," or the "Tiger improved."

Buy the GENUINE TIGER, with our name on it, and you will make no mistake.

PRICES REDUCED FOR 1887.

THE HOLLINGSWORTH-TIGER RAKE.



THE HOLLINGSWORTH-TIGER RAKE

Is so called because it is a COMBINATION OF THE BEST AND DISTINCTIVE FEATURES which have made the "HOLLINGSWORTH" and the "TIGER" rakes the two most popular and successful hay rakes ever introduced.

It takes from the Hollingsworth its rocker frame and peculiar shaped tooth, with its spiral spring attachment and ready adjustability to every variety of work, and unites with it the iron revolving axle and dumping device of the world-renowned "Tiger." Any one familiar with the merits and characteristics of these two rakes will readily see the advantage of this strong combination, and will be ready to admit our claim that it is the

"NE PLUS ULTRA" OF HAY RAKES.

We have for many years manufactured on a very extensive scale both the Hollingsworth and Tiger rakes. Over 100,000 of them scattered all over the world, in Europe, in Asia, and in Africa, as well as in every State and Territory in the Union, attest their remarkable success. We are justly proud of their record and the reputation we have made for them, and now, in offering the "HOLLINGSWORTH-TIGER" as a new candidate for popular favor, we do so with confidence that this COMBINATION OF TWO OLD FAVORITES will meet with a warm reception and popular favor.

Remember then we claim that the HOLLINGSWORTH-TIGER is the very best hay rake you can buy, and also has, at a trifling additional cost, AN ATTACHMENT THAT WILL ANSWER A BETTER PURPOSE THAN THE HAY TEDDER, which is an implement that is rapidly coming into general use.

SEND FOR REDUCED PRICE LISTS OF ABOVE RAKES.

J. L. HEALD'S

AGRICULTURAL WORKS,

Crockett, Contra Costa Co., Cal.

Stationary Engines and Boilers.

Portable Straw-Burning Boilers & Engines.

IRON AND BRASS CASTINGS.

Machinery of all kinds furnished at shortest notice.

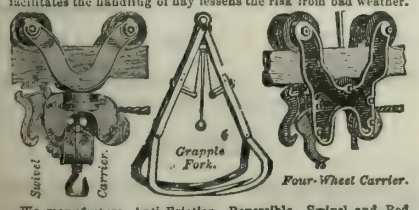
Heald's Patent Wine-making Machinery,

including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

USE THE **STANDARD HAYING TOOLS**

FOR STACKING OUT IN FIELDS OR MOWING AWAY IN BARNS

The use of a good Hay Carrier and Fork a few hours in a catching time may save many times its cost. At such times, anything that facilitates the handling of hay lessens the risk from bad weather.



We manufacture Anti-Friction, Reversible, Swivel and Rod Hay Carriers, Harpoon and Grapple Horse Hay Forks, Pulleys, Floor Hooks, etc. Also the celebrated Halladay Pumping and Geared Wind Mills, Corn Shellers, Feed Mills, Stalk Cutters, Horse Powers, Jacks, Tanks, Pumps, etc. Send for catalogue and prices. Agents wanted in all unassigned territory.

U. S. WIND ENGINE & PUMP CO., Batavia, Ill.

ATTENTION, FRUIT GROWERS!

THE PROBLEM SOLVED!

HOW to dispose of Fruit with the least loss.

HOW to insure ready sales and the best returns.

HOW to make Fruit raising more profitable than any other branch of Agriculture.

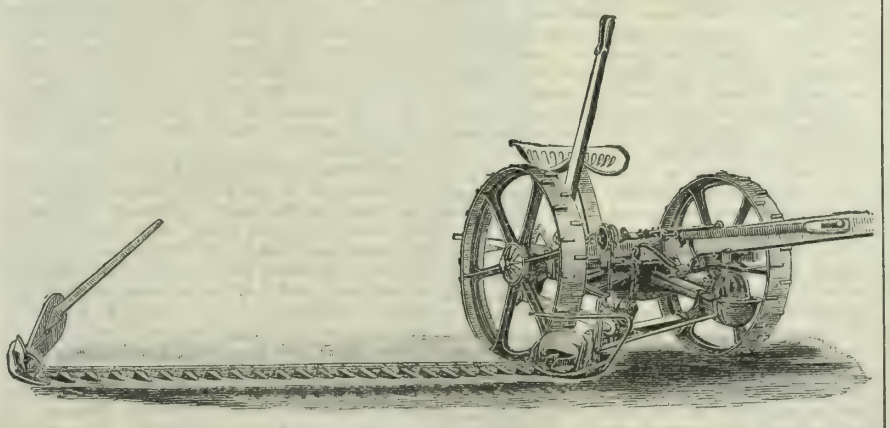
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WHEELER FRUIT PACKING CO.,
116 California Street, San Francisco.

BEACH & CO'S ROSES

Send stamp for our beautiful catalogue of all the Newest and Best Roses, Geraniums, Carnations, and all kinds of House and Bedding Plants, before ordering elsewhere. We make no extravagant promises, but sell GOOD SOLID GOODS at fair prices; safe arrival guaranteed by mail or express. Our page of special collections will surely contain something you will desire. Address BEACH & CO., RICHMOND, IND.

THE STANDARD MOWERS.



The Only Successful and Practical

WIDE-CUT MOWERS.

The entire weight of the Cutter Bar being suspended on the Spring prevents the Bar from dragging on the ground, thus doing away with all side-draft and enabling us to use a 7-foot bar, thereby accomplishing a feat which cannot be done by other machines.

It has more cutting power, because nearly the whole weight of the cutter-bar and the inside and outside shoes is carried on the drive-wheels, thereby increasing the "*Traction*" more than enough to make up for the additional length of the knife.

The 7-foot Mower is as Light Draft and as easy to handle as any 4-foot Cut Mower made.

Remember with two horses and one man the 7-foot Mower will cut 20 acres of grass per day.

SIZE OF MACHINES:

4 Feet 3 Inches, 6 Feet, 7 Feet.

Send for Circulars.

FARMERS' UNION,

San Jose, Cal., Agent for California.

RURAL HEALTH RETREAT,

ST. HELENA, CAL.



This delightful Resort has been fitted up as a Sanitarium, and offers unrivaled advantages to **Tourists and all Classes of Invalids**, both for winter and summer. It is situated on the southwestern slope of Howell Mountain, a locality of enviable reputation for health-recuperating qualities, about 1200 feet above tide level, 500 feet above and overlooking the beautiful **Napa Valley**, and 2½ miles from St. Helena.

Its Natural Advantages

Are equal to those of any other health resort. It is noted for its Pure Water, Dry Atmosphere, Clear and Balmy Sunshine, Even Temperature, Mild Breezes, and the absence of high winds.

Our Remedial Measures

Include **All Forms of Baths**, Vacuum Treatment, both local and general; Galvanic and Faradic Electricity, Mechanical Appliances, and Exercises for the Development of the Lungs, Vital Organs, and Muscular System, and **Cure of Deformities.**

The Rational Treatment

By known remedial agents is employed. With these natural and acquired advantages, pleasant and desirable surroundings, thorough and judicious treatment and wholesome diet, most invalids who avail themselves of these agreeable facilities, rapidly recover.

The Retreat is under a thoroughly competent director, and patients have the care of two regularly graduated physicians of experience, who are assisted by well-trained and courteous gentleman and lady assistants.

All Invalids and Tourists may feel assured that they will be courteously received and kindly cared for.

For Circulars and further particulars, address

RURAL HEALTH RETREAT,
ST. HELENA, CAL.

KNABE

PIANOFORTES.

UNEQUALLED IN

Tone Touch Workmanship and Durability.

WILLIAM KNABE & CO.

Nos. 204 and 206 West Baltimore Street, Baltimore.
No. 112 Fifth Avenue, New York.

THE FIELD.

Wheat Cultivation in India.

We condense the following account of wheat cultivation in India and its cost from the pen of Martin Meyers, a recent correspondent of the *Call* of this city:

British India—Hindostan, the locality from which the English derive their supply of India wheat, is a vast area of level country—as level and monotonous in every direction, for thousands of miles, as the San Joaquin valley in this State. Throughout this region there are populous cities at intervals of from 50 to 80 miles apart, and compact villages from three to four miles apart. There are no isolated farms, as with us, no fences except along railway tracks. In each village there are a few landholders, not landowners, who either cultivate the land on shares or on their own account. They raise wheat, rice, corn, sago, etc.; but all the wheat is grown inland—none nearer the sea than 200 miles. Wheat is grown as a second crop, following corn, sago, etc., and is always irrigated. The correspondent above named divides his subject of wheat culture into that of planting, irrigating, harvesting and transportation. He requests his readers to remember that the bhigah is the standard of area, the maund the standard of weight, and the rupee that of current coin, also that 12 pie make one anna, and 16 annas one repee. And further, that

40 bhigahs make 25 acres.
1 maund equals 80 pounds.
1 anna equals 3 cents.
1 pie equals ¼ of a cent.

First to be considered, then, is the planting. For this we will allow as follows:

	Per acre.
Seed wheat, say 1 rupee or 16 annas, equals	48 cents
Plowing, sowing and harrowing—	
3 yokes of oxen at 5 annas, 15 annas, equals	45 cents
4 coolies at 2 annas, 8 annas, equals	24 cents
Hoeing into beds—	
2 coolies at 2 annas, 4 annas, equals	12 cents
Total cost per acre	$1 29

The seed is sown broadcast, the ground plowed with a wooden plow or crooked piece of acacia trunk, and is harrowed as often by a thornbush as by anything else, drawn by a pair of not over-fed bullocks, and guided by an almost naked coolie, while his clean-shaven cranium, turbanless, is proof against the scorching rays of an Indian sun.

Second—Irrigation—For the purpose of irrigation, the land is subdivided into patches of about 25 acres, in the midst of which stands a well 10 or 12 feet in diameter, the water being from 40 to 60 feet below the surface. Around this favored spot are reared a few huge banyans and other useful trees to shelter the workmen from the heat of the sun. The water is raised by a pair of bullocks hitched to a beam working a horizontal wheel of about 10 feet in diameter, with wooden cogs on its upper outer edge, which are geared into similar cogs or pegs on a vertical wheel on the outer edge. On this vertical wheel swinging loosely from the top and leading down to a few feet under the water—the wheel being directly over the well—is an endless rope, or rather a rope-ladder with wooden rounds about 15 inches apart. Each round or rung carries an earthenware vessel holding about half a gallon of water, which it tilts over into a trough on top as each vessel is in turn raised to the surface by the rotation of the wheel. This, the "Persian wheel," as it is called, is the general and the only mode of irrigation throughout the country, except the canals constructed by the East India Company.

The landholders in the Punjab pay about one dollar per acre for the use of water from the Government canals—they having to construct their own sub-ditches from the distributing canals.

To irrigate, then, 25 acres by the Persian wheel system, three yokes of oxen and three coolies are employed without intermission for four months, day and night.

3 yokes of oxen, working 8 hours each, at 5 annas, 15 annas, equals	45 cents
3 coolies at 2 annas each, 6 annas, equals	18 cents
Total	63 cents

That is 63 cents per day for 120 days—$75 60 for 25 acres; and dividing this sum by 25 we get $3.02 per acre.

Now we come to harvesting. All hands, both male and female, of ages from 9 years to 90, turn out the harvest, and are to be seen with their curved reaping hooks of a very primitive style, half squatting on their hunkers, in long lines cutting away at an apparently interminable stretch of wheatfield, and frequently the quantity cut during one day is carted to the well or farmyard the next. Also by an old Sikh law—not an English one—each hired coolie is entitled to all he can pack on his back of wheat sheaves as his portion of a share in the soil, no matter who owns the crop, and avails himself of the privilege at the end of each day's work. The winnowing is done in the open air by a sieve in the old style, so we can get the approximate cost per acre, as follows:

	Cents.
Two hired coolies will cut 1 acre at 2 annas a day, 4 annas, equals	12
Cart 1½ to sell, 3 annas, equals	9
Threshing, 12 bullocks, treading out the grain, biblical style, around a ring, at 1½ annas, 18 annas, equals	54
One coolie to drive, at 2 annas, equals	6
Winnowing, 1 man and 1 woman, at 2 annas, 4 annas, equals	12
Fifteen wheat sacks, at 1 anna, 15 annas, equals	45
Total per acre	$1 38

Lastly, let transportation be considered. For the purpose I will take wheat from the country between Allahabad, on the Ganges, and Loodiana, on the Sutlej, 700 to 1000 miles. The chief ports of export are Calcutta, Bombay, Madras and Kurrachee, all of which are termini of great trunk lines of railroad, while to the first, Calcutta, float on the bosom of the mighty Ganges immense piles of freight; to the latter, Kurrachee, the river Indus, flowing through an unsurpassed wheat belt, conveys a fair proportion of the export wheat of India. But in competition with this cheap and excellent means of water transportation is the vast and efficient system of East India railways, which, like the Canadian Pacific, being built from the revenues of the State, belongs to the people themselves, and is operated under a schedule of fares and freights just sufficient to keep the permanent way in order, rolling stock in trim, and defray the current working expenses. Thus the grain dealers of each local market in the interior are enabled to transmit to the seaboard their produce far cheaper than could be expected in countries where labor is higher and where the above-mentioned advantageous conditions do not exist. The classification of freight is much the same as with us, but the scale for distances is graduated so as to give a cheaper rate per mile for long than for short distances, as, for instance, when wheat is carried a distance of 500 miles for one-ninth of a pie per mile per maund, it would be carried a distance of 900 miles at one-twelfth of a pie per maund per mile, and so on—*i. e.*, for one pie one maund (80 pounds) is carried 12 miles, or for one pie 100 pounds is carried 9 3 5 miles, and for 100 pies 100 pounds is carried 960 miles; that is, for 25 cents we get 100 pounds carried 960 miles, or $5 carries one ton over 960 miles. But as our object is to find out the cost of one cental laid down at port, we will have to take this 960 miles as the average distance, and also allow 22 bushels of 60 pounds each to be an average yield per acre, this being about the mark as far as my observation has enabled me to judge; then, by adding the three foregoing items together, we have:

Planting (per acre)	$1 29
Irrigating (per acre)	3 02
Harvesting (per acre)	1 38
Total (per acre of 22 bushels, or 1320 lbs.)	$5 69

And $5.69, multiplied by 100 and divided by 1320, gives for planting, irrigating and harvesting a cost of 43 cents per 100 pounds; for transportation 960 miles, 25 cents per 100 pounds. Total cost laid down at port, 68 cents per 100 pounds.

Again it may be urged that 960 miles is too great an average distance; to this I reply that wheat can be raised cheaper in the Punjab than near the coast, and of a far better quality. The ratio given and wages quoted are those in existence in 1860, and I have known the best of farm hands employed by the month for $1 and board. But the general tendency of laborers' wages in that country is to rise, so wheat can never be produced in British India at a less figure than that above arrived at, namely, 68 cents per cental.

Our wheat has to go in sailing vessels around Cape Horn—and theirs in the same kind around the Cape of Good Hope. They may ship via Suez, but allowing for tolls it is doubtful if it could be done any cheaper. If it can, when the Panama canal is opened, we would have a like advantage.

Progressive people will naturally ask if the length of time since 1860 has not operated to create a new order of things and effect a great change in prices. Not materially, I think, for the reason that the natives, both Mohammedan and Hindoo, are fanatically attached to caste and are scrupulously opposed to innovation of any kind, its teachings being to do all things precisely as did their fathers, grandfathers and greatgrandfathers. Although I have not been to the Punjab since 1860, in 1870 I visited Calcutta to dispose of my interest in a tea plantation in Upper Bengal. We had there 300 coolies employed at the same old wages, viz.: three rupees per month, and they worked long hours and boarded themselves out of that. Still, as I said before, the tendency of wages would be to rise, while that of transportation would be to get cheaper, say 10 per cent each way, which would leave the rate of 68 cents per cental practically unchanged.

One Cent Invested

In a postal card on which to send your address to Hallett & co., Portland, Maine, will, by return mail, bring you free, particulars about work that both sexes, of all ages, can do, and live at home, wherever they are located, earning thereby from $5 to $25 per day and upward. Some have earned over $50 in a single day. Capital not required; you are started free.

TIME IS MONEY.—This old adage is peculiarly applicable to farm work, for not only is the time spent in work lost by waste of it, but the possible results of the time so spent are lost with it. A poor tool leads to waste of time, for when a farmer spends a month plowing and harrowing 20 acres with the ordinary implements, which he can do with the "Acme" Pulverizing Harrow, Clod Crusher and Leveler in a week, he clearly loses three weeks of time with all the profit he could make for these three weeks of work. As this implement covers six feet of surface and plows and turns and harrows and pulverizes the soil at the same time, the saving of time and labor is clearly unquestionable. This is a most important consideration in the hurry of spring work. See advertisement on page 302.

The New Text-Books.

The bill respecting the distribution of the State series of school text-books, passed by the Legislature and approved by the Governor, provides that all orders for text-books shall be made on the Supt. of Public Instruction, and shall be accompanied by cash, in payment for the same, at the price fixed by the State Board of Education as the cost price at Sacramento; *provided*, that if the books are to be shipped by mail, the cost of postage shall also accompany the order.

The following persons shall be entitled to order books:

1. County Supts. of Schools, for the use of teachers, parents and pupils in their counties only.

2. Principals of State Normal schools, for their own and for the use of the pupils in their respective schools only.

3. The Secretary or Clerk of any school district in the State, whether incorporated or operating under the general law of the State, for the use of the pupils in such district only; but no books ordered by the County Supts., or Clerks of District Boards of Trustees, or Principals of State Normal schools, shall be sold at a price exceeding the cost price at Sacramento, with the actual cost of freight and cartage added.

4. Any retail dealer who shall first transmit to the State Supt. of Public Instruction an affidavit duly subscribed by him in substance as follows, to wit: "In consideration of receiving for sale, upon the inclosed or upon any future order, the series of school text-books, or any part thereof, published by the State of California, I hereby agree that I will not sell the same to any person or persons for the purpose of being sold again, or to any person or persons beyond the limits of the State of California, and that I will not sell said series of text books, or any part or portion thereof, at a price exceeding the price to the pupil fixed by the State Board of Education."

Said affidavit shall be indorsed by the County Supt., in the following words, viz.: "I hereby certify that A. B. is a regular retail dealer in school-books in this county. C. D., County Supt."

It shall be the duty of the State Supt. of Public Instruction to furnish at once to each County Supt., for the use of any dealer in his county who may apply for permission to sell the books of the State series, printed copies of the above affidavit, together with the list of prices of such books fixed as the cost price at Sacramento, and the price to the pupil; and any dealer who shall fail to comply with the conditions of such affidavit shall forfeit his right to any further purchase of said books from the State.

It shall be the duty of the Boards of Supervisors of the counties, or cities and counties, in this State, to provide a revolving fund, for the purpose of enabling the County School Supts. to purchase the State text-books; all moneys to be taken therefrom to be replaced by the moneys received from the sale of said books to the scholars of the public schools of his county, either by himself, or by the teachers of the public schools, or the Clerks of Boards of District Trustees.

All school books compiled by the State shall be furnished to the public school-children of the State at the cost of printing, publishing and distributing the same, said cost to be ascertained and fixed by the State Board of Education on or before the 15th day of June of each school year; and it is further enacted that the cost of distribution shall be taken to be cost of postage required for mailing each book.

The price list has been fixed by the State Board of Education as follows:

First Reader, at Sacramento, 15 cents; by mail or purchased from bookseller, 20 cents.

Second Reader, at Sacramento, 30 cents; by mail or purchased from bookseller, 38 cents.

Third Reader, at Sacramento, 40 cents; by mail or purchased from bookseller, 52 cents.

Speller, at Sacramento, 20 cents; by mail or purchased from bookseller, 26 cents.

The above prices were fixed by the former State Board of Education. Supt. Hoitt thinks that the board at its next meeting will make the price of the Second Reader to the pupil 40 cents, instead of 38 cents, and of the Third Reader 50 cents, instead of 52 cents, thus making the cost of a set the same as now, but the price of each book a multiple of five.

The dealers will make the difference between the cost of freight and postage; and the consumer who buys his books of the dealer will save a two-cent stamp required to send his order to Sacramento and the cost of a postal note or money order. If the people of any district prefer to send, through their clerk, direct to the State Supt. for their books, they have that privilege. It would seem that not only will the people be protected, but accommodated by the plan of distribution adopted.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

For Gout, Rheumatism, Neuralgia, Sciatica, bathe the parts affected freely with Perry Davis' PAIN KILLER taking also a teaspoonful in sugar and water 3 times a day, and you'll get relief at once and a Cure after faithful use of this remedy. Pain Killer Cures Coughs, Colds, Sore Throat, Diphtheria, Frost Bite.

HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

J. R. CATES & CO. PROPRIETORS,
417 Sansome St. San Francisco

TRADE MARK.

KOCH & REIS'

BELGIAN

Sublimed Sulphur.

JAS. DE FREMERY & CO., San Francisco, Importers.

For Sale by the Leading Wholesale Druggists and Grocers.

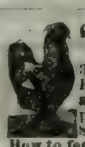
NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS OF THE GRANGERS' BUSINESS ASSOCIATION, a corporation, for the election of a Board of Directors for the ensuing year, and for the transaction of such other business as may properly come before it, will be held at the office of the corporation, 108 Davis Street, San Francisco, at 10 o'clock A. M., Wednesday, April 13, 1887.

CHAS. WOOD, Sec'y. DANIEL INMAN, Pres't.

FLOWERS, BOUQUETS, ETC.

With the many improvements inaugurated at my Nurseries during the season, I am now better prepared than ever to furnish all manner of designs for exquisite Bouquets, Flowers for Marriage Ceremonies, private and public Parties and all other Entertainments. Will also rent shrubs in pots or boxes for Hall or House Decorations. Mourning Wreaths and other Funeral Designs to order at the shortest notice, and on reasonable terms. EMIL BOURGUIGNON, Sainsevain Villa, near Narrow Gauge Railroad, ½ mile from Depot. Telephone No. 34, free to all patrons. Floral Depot, 72 N. 1st St., San Jose



"25 Years in the Poultry Yard"

33d Edition. 108 pages. How to prevent HOG and POULTRY CHOLERA, GAPES and ROUPE. I wrote it as a system of practical HOG and POULTRY keeping. Symptoms and remedies for all diseases. How to feed for Eggs. 25c. in stamps. A copy of "The Cove Dale Poultry Yard," containing illus. Catalogue and Price List of 30 varieties FREE. A. M. LANG, Box 846, Cincinnati, O.

HAWLEY BROS. HARDWARE CO.

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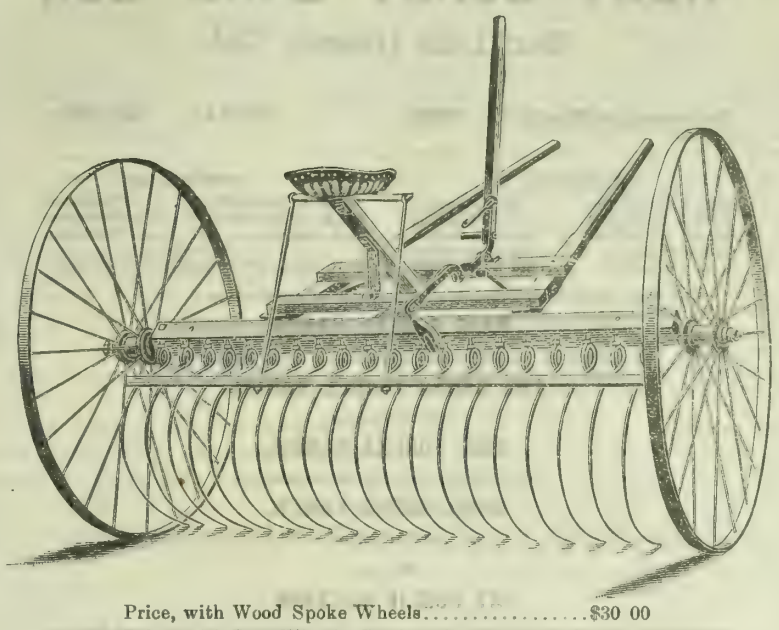
THE "RELIABLE" SULKY RAKE.

The cut shows our new "RELIABLE" Rake, which has been built with a view especially to furnish a Rake which shall be superior in construction, handsome in finish, easy to operate, and very substantial. In building this Rake, nothing but first-class material and workmanship have been employed. In its vital features, as well as in its minor points, nothing has been done to avoid expense. Every piece which enters into its construction fills its especial place, because it was THE BEST OF ITS KIND which could be used. An examination of the "RELIABLE" will convince the most skeptical that it combines all the advantages we claim for it.

It is a Complete Lock-Lever Rake.

POINTS TO BE NOTED:

DOUBLE COIL SPRING STEEL TEETH.—The Teeth are made of refined cast steel, tempered in oil, and weigh 45 pounds per set of 20. Every one is tested at the factory, and is warranted. By our method of attaching these teeth they retain the highest degree of elasticity, thus enabling the rake to pass over uneven surfaces and obstructions without detriment to its work or damage to the implement.



Price, with Wood Spoke Wheels.....$30 00
Price, with Iron Wheels, Steel Spokes..... 35 00

EACH TOOTH is fastened to the Rake Head by an independent bolt, and may be removed in less than half a minute without disturbing any other.

WROUGHT IRON TURNED SPINDLES.—The Axles are of wrought iron, and TURNED TO A BEARING where they enter the wheel hub. This feature is possessed by no other Rake, and is an especially valuable one, as it decreases the wear on both spindle and hub, and makes the Rake very light of draft.

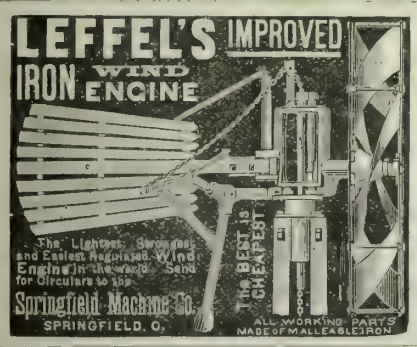
EASE OF DUMPING AND LEVER.—The Rake Head proper, as shown in cut, sets higher than the spindle, so that the least tilting of the Lever dumps the Rake by the weight of the operator. The construction of the Lever is such that a very slight pressure of the foot on the treadle, at its lower end, will hold the teeth firmly to their work. This makes it practically a lock-lever, and gives the advantage over a lock-lever that it is not nearly so hard to dump.

SIMPLICITY AND CHEAPNESS.—The "RELIABLE" is entirely free from cog-wheels and gearing and other complicated devices for dumping or operating. It is the easiest dumped Rake made, and is so simple that any child who can drive a horse can operate it perfectly and satisfactorily.

Adriance Buckeye Mowers, Hodges Headers, Taylor Rakes, Rice Straw-Burner Engines, Perkins Windmills, Etc.

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It is Impervious to Water, Brine, or Oil, and Butter wrapped in it will preserve its freshness a much longer time.

Is absolutely clean and innocent of any foreign taste or taint.

FOR USE IT WILL COST ABOUT HALF THAT OF CLOTH.

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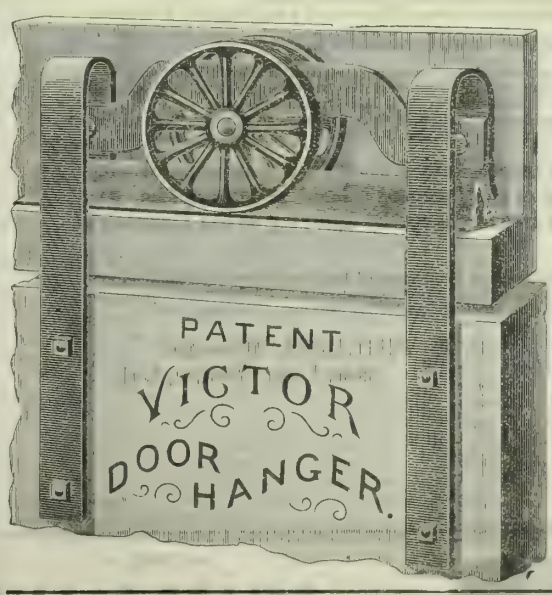
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	PER DOZ. PAIRS.
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No. 3, for doors 9 to 12 ft. wide	18 00
No. 4, for doors 12 to 18 ft. wide	26 50

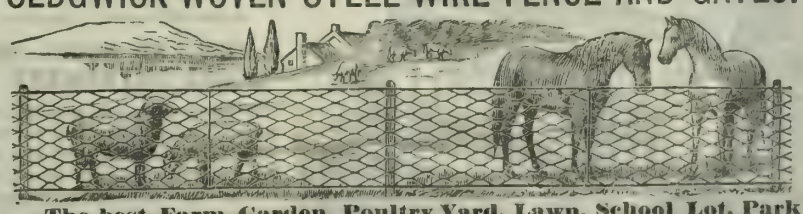
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Patented Jan. 26, 1886.

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Lands For Sale and To Let.

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—BY—

GRIFFIN BROTHERS,

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TITLES ALL GOOD OR NO SALE.

We have 40 inches of rain annually, hence need no irrigation and have no law-suits about water rights. Plenty of wood and water. Good schools, good society, cheap land, the best of soils, and local markets for all products. No snow, no blizzards, no black gnats, no damage from north winds, no chills and fever.

No. 49.

$3000 —A well improved 160 acres, 10 miles west of this town, on Cottonwood Creek. On public road. New dwelling, only 10 rods to school house; no hills. Forty acres cleared; some good bottom land. U. S. title. Terms cash. Crop goes in.

A FINE RURAL HOME. No. 67.

$25,000.—1085 acres 2 miles from Cottonwood, and fronts on a never-failing stream. About 500 acres of the finest quality of dark, deep, alluvial land that will produce corn, alfalfa, wheat, vegetables or crops of any kind; has yielded 7000 bushels of wheat in one season, besides other crops. The balance of the farm is rolling woods-pasture. On the bottom land are two orchards and vineyard, 3 dwelling houses, large barns and granaries that would cost $5000. Several good wells of water. Splendid location for healthfulness and picturesque scenery. All the farming machinery and household furniture; 19 good horses, including a young stallion; 19 head of cattle, mostly cows; and 40 hogs; also sufficient hay and grain to seed the farm goes in with the farm Part may remain against the farm if purchaser so desires.

No. 68. A SUBURBAN HOME.

$7200.—240 acres on Cottonwood Creek, 2 miles from town; all well fenced and cross-fenced; all good land under cultivation; one half is first-class bottom land; good buildings; terms, half cash.

No. 71.

$3000 —800 acres rolling land, finest kind of pasture. Wells can be had for stock water.

No. 70.

$10 per acre—160 acres, perfectly level, grav. second bottom land; 40 acres clear; balance has some brush and oak, but easily cleared. One of the very best locations in Cottonwood valley for Fruits of any kind without irrigation. Terms cash.

No. 78.

Four sections of the best stock pasture land. Rolling hills all covered with grass, on which cattle graze and do well the year round. Plenty of water for stock. This place will be sold very cheap if application is made soon. Title perfect.

No. 74.

$10 per acre.—120 acres good vine land, nearly all cleared, none too rough for work, good house and everlasting spring. U. S. patent. Terms cash.

No. 75.

$10 per acre.—700 east of and on the Sacramento river. All under a good, new wire fence. A never-failing creek crosses the land and furnishes abundance of stock water the year round. About 300 acres level, of which 80 are the finest kind of river bottom land. This bottom land has been under cultivation for several years and produces excellent vegetables.

☞Call on or address

GRIFFIN BROTHERS,
Cottonwood Valley, Shasta Co., Cal.

FOR SALE!

A Fresno County Raisin Vineyard.

ALFALFA and GENERAL FARM.

800 Acres.

Under a fine state of cultivation and irrigation. Fences, buildings, ditches, levees and checks built in the most substantial manner. Soil unexcelled, as growth of products show. Located near one of the most thriving towns on the S. P. Co.'s Railroad. **Two hundred and twenty-eight acres in vines,** from one to six years old; all have been planted and cultivated by the most experienced vine-growers, and will soon be a prominent Raisin Vineyard of Fresno County. About 200 acres in Alfalfa. The rest of the land is now in grain crops. The farm is well stocked with horses, mules, cattle and hogs. This is a good, substantial interest-paying investment with a great future Will be sold at a very reasonable price, with easy terms of payment if required. For full information and map, apply to

ALBERT E. CRANE.

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Agent for sale of all kinds of Country Property.

Choice Homes in Contra Costa.

Improved Places for Sale near Walnut Creek.

One lot of 11 acres, with house of six rooms, pantry, milk-room and summer kitchen, in good repair; barn, chicken-house, etc., and fine orchard of various fruits. Situated within 1½ miles of the village of Walnut Creek, this offers an almost ideal home to those desiring a sheltered spot in an almost perfect climate. Price, $2000.

Also, 12 acres close by the same village, half set to Zinfandel grape-vines, just coming into bearing, with four-room house—hard-finished and nearly new—stable, etc. Price, $2300. Wells of excellent water on both places.

For further information, address

H. F., Box 2361, S. F.

FOR SALE.

2240 Acres of land in Shasta Valley, Siskiyou county, Cal. Six miles from Montague. It is well watered with living springs, is fenced, has a house, barn and granary upon it. Two-thirds are suitable for cultivation and all is good grazing land, Price $25,000.

Also, 3240 Acres adjoining the TOWNSITE OF MONTAGUE. For further particulars, call, from 10 A. M. to 2 P. M., at room 2, 116 California Street, San Francisco, Cal., C. C. WEBB.

GRAND AUCTION SALE!

WEST COAST LAND CO.,

San Luis Obispo, Cal.

Incorporated March 27, 1886. CAPITAL, 500,000.

DIRECTORS.		OFFICERS.	
GEO. C. PERKINS	San Francisco.	JOHN L. HOWARD	President.
JNO. L. HOWARD	San Francisco.	ISAAC GOLDTREE	Vice-President.
ISAAC GOLDTREE	San Luis Obispo.	R. E. JACK	Treasurer.
R. E. JACK	San Luis Obispo.		
C. H. PHILLIPS	San Luis Obispo.	C. H. PHILLIPS, Secretary and Manager.	

The WEST COAST LAND COMPANY now offering in subdivisions the

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

THE EUREKA RANCH,

Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

All ying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

Will sell

AT PUBLIC AUCTION

About March 22d (for date see later advertisement) **the balance of the Paso Robles Ranch,** consisting of town lots in Templeton, 800 acres in 5 to 12-acre lots adjoining Templeton, and 14,000 acres in ranch subdivisions;

ALSO,

2100 acres of the **Huer Huero Ranch** in 20 subdivisions.

These are all agricultural and fruit lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara county, and require

NO IRRIGATION.

Title, U. S. Patent and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments, at 2, 3, 4 and 5 years; interest 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

An additional charge will be made of $5, for deed in sale of town lots, and $25 in other cases for expenses of sale, including making and recording all papers.

Schedule price of ranch subdivisions average $20 an acre; of 5 to 12-acre lots, $50 an acre.

SALE WITHOUT RESERVE,

Providing that no bid will be entertained at less than 60 per cent of schedule prices.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

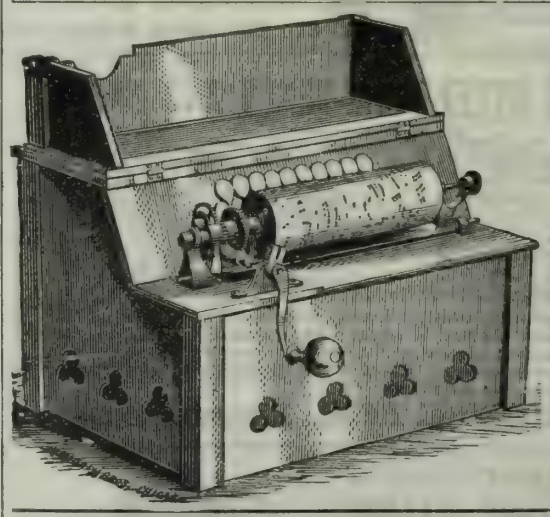
Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo. From San Francisco, take 8:30 A. M. daily train, S. P. R. R., to Templeton.

Parties wishing to inspect said lands with a view to purchasing at the Auction, or any of the Company's Land at private sale, will be shown the property free of charge by applying at the Company's office in Templeton.

Maps of all the ranch subdivisions, of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands with a new descriptive catalogue are in press and will be sent free on application after the 25th inst. (February, 1887.)

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Special Inducements to Agents.

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

293 COLUMBUS



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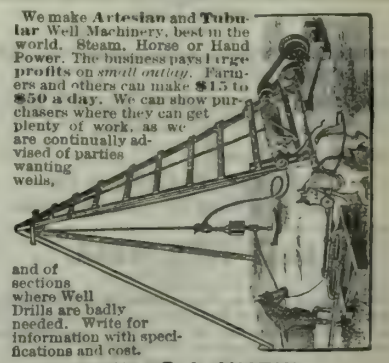
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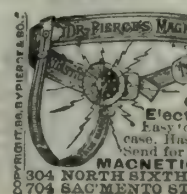
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We make **Artesian and Tubular** Well Machinery, best in the world. Steam, Horse or Hand Power. The business pays large profits on *small outlay*. Farmers and others can make **$15 to $50 a day.** We can show purchasers where they can get plenty of work, as we are continually advised of parties wanting wells,



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Railroad Rates.

Freights and Fares Under the New Law.

Pacific Coast producers and shippers have been on the anxious seat ever since the enactment of the Interstate Commerce law as to what the immediate effect would be on rates to and from this coast. The *Morning Call* of March 30th gives the following full information on the subject:

The new western classification by which freight rates are to be permanently regulated after April 4th next came to hand yesterday, and railroad agents are at last in a position to give reliable information in regard to tariffs as they will be under the Interstate Commerce bill. The tariff schedule received last week was simply the first rough division of the various kinds of freights into some ten classes, running from one to five and from A to E, stating also the rates which were to be charged for each class. The new sheet, however, deals directly with the freights themselves without regard to their prices, and, with the old sheet as a basis, completely reclassifies them under the heads from one to five and from A to E. When a merchant, for instance, desires to know at what figure he can import hams and bacons from Missouri-river points, he simply turns to the schedule, and under the appropriate head finds them rated in the second class for lots less than a carload, and in carload lots and over in the fifth class, the rate in the first instance being $2.50 and in the second $1.50. This classification, however, only applies to those classes of freight for which no special rates have been made. In the transportation of beans, canned fruits, etc., for which freight the Pacific Mail competes strongly, special rates have been agreed upon as follows:

Articles In carloads of 20,000 lbs., per 100 lbs.	To Missouri River and Common Points.	To St. Louis and Common Points.	To Chicago and Common Points.
Beans, canned fruits, pickled fish, canned salmon, honey (strained)	1 40	1 50	1 55
Borax, cocoa oil, whale and fish oil, vegetables	1 10	1 20	1 25
Barley	65	72	75

Hops, any quantity, from the Pacific terminals named above, to Missouri-river common points, $1.75 per 100 lbs.; to St. Louis and common points, $1.85 per 100 lbs.; and to Chicago and common points, $1.95 per 100 lbs.

Oranges, in car-lots, from Los Angeles, Cal., to Missouri-river points, $1 per 100 lbs.; to Sioux City, Iowa, and St. Louis, Mo., and common points therewith, $1.10 per 100 lbs.; and to St. Paul, Minneapolis and Chicago, $1.15 per 100 lbs.

This last rate differs but slightly from that made under the old regime. The old rate to Chicago was $1.05, so that there is only here an increase of 10 cents. To Denver the rate is lower by some 40 cents, the rate having previously been $1.40, where it is now $1.

San Francisco merchants have awaited with much interest and anxiety the issuance of the new local rate-schedule upon which the officials of the Southern Pacific have been working most assiduously since the return of J. C. Stubbs and Richard Gray from Chicago. It will be a decided relief for them to learn, therefore, that the interstate law does not alter, save in a few unimportant particulars, the present relationship between the Missouri river and California in respect to Salt Lake City and Ogden.

In reference to the maintenance of the existing trade of California and Colorado, the following special rates for California products have been made from Pacific Coast terminals to Denver, Colorado Springs and Pueblo:

C. L.	Per 100 lbs.
Beans	$1 30
Canned goods	1 30
Fish, pickled	1 30
Lumber	64
Oranges	1 00
Sugar	1 30
Vegetables	1 00
Wine	1 90

For freight train service rates on live-stock between Pacific Coast common points and the places in the table, rates have been agreed upon as follows:

	Rates in dollars and cents per 1000 pounds. Minimum weight per car, 2000 pounds			
	Length of Cars.	Horses and Cattle.	Cattle.	Hogs and Sheep.
Missouri river common points; also St. Paul and Minneapolis, Minn. and Galveston and Houston, Texas.	30 ft.	2.00	1.50	1.40
	33 ft.	2.20	1.65	1.54
	34 ft.	2.27	1.70	1.59
	35 ft.	2.33	1.75	1.63
Mississippi river common points, Dubuque, Ia., to New Orleans, La., inclusive.	30 ft.	2.22½	1.70	1.60
	33 ft.	2 44¾	1.87	1.76
	34 ft.	2.52½	1.92 7-10	1.81 7-10
	35 ft.	2.59½	1.98 3-10	1.86 3-10
Chicago, Milwaukee and points common therewith.	30 ft.	2.30	1.77½	1.65
	33 ft.	2.53	1.95¼	1.81½
	34 ft.	2.61	2.01½	1.87 3-10
	35 ft.	2.68	2.07	1.92 2-10

Another table of considerable interest to both importers and exporters is the table of rates between Missouri-river points and Chicago and St. Louis, which is as follows:

	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.
Chicago	$90	$75	$50	$35	$30
St. Louis	70	55	40	30	25
	A Class.	B Class.	C Class.	D Class.	E Class.
Chicago	$32 50	$29 50	$23	$20	$16
St. Louis	25	22	18	15	12

As far, therefore, as can be judged from present indications, the whole effect of the interstate commerce bill on California freight has been to increase materially rates to Missouri river points and points east thereof, while the rates to local points, though increased, have yet been maintained in much the same relation to those ruling to the same points from the East as in the past.

T. H. Goodman, in conversation yesterday with a *Call* reporter, reiterated his former statement that passenger rates would remain much the same as they are at present. There may be, he said, a few changes to points west of the Missouri, for if any of our connections increase their rates a few dollars, we must make a similar change in our rate schedule. We will issue a new rate-sheet, however, on the 4th prox., but beyond such changes as may occur between now and then it will be substantially similar to that in use at present. In regard to excursions, Mr. Goodman stated that they would be continued at the same rate as at present, namely, $80 for the round trip from Chicago to the coast, and $60 from Missouri-river points, tickets to be good for six months.

The Wine Committee's Report.

A report of the committee of the Wine makers' and Grape-growers' Convention, appointed to sample the wines exhibited, has been prepared as follows:

The total number of samples received was 465. Of these 386 were sampled by your committee. Each member of the committee kept a record of each wine sampled, and on comparing notes we find the following result, which we have tabulated in a concise form. As it was announced in the call for the convention that the wines were not for competition, but for study and comparison, we have refrained from mentioning the names of exhibiting vineyardists and only show the results as to counties. We have made three classes of wines, namely: extra, fine, good. Those that were marked No. 1 by all of the committee are classed as "extra;" those that were marked No. 1 by a majority of the committee are classed as fine types; those marked No. 2 are classed as good types; all below No. 2 are not included in our report.

In all, 29 samples of Zinfandel were exhibited, and two from Alameda were extra, five fine, and seven good; Napa had five fine and two good; Santa Clara, one fine, and two good; Contra Costa and Santa Cruz, each one good. Of the 20 Zinfandel blends, Alameda had one extra, three fine and eight good; Santa Clara, one fine and one good; San Joaquin, one fine.

Of nine samples of Crabb's Black Burgundy, Napa had one fine and one good; Alameda, one fine and two good; Santa Clara, four good.

Of four samples of Beclan, Napa had one fine; Alameda, one fine; San Mateo, one good.

Of five samples of Petit Syrah, Napa had one fine; Alameda, one extra and three fine; San Joaquin, one fine and one good.

Of seven samples of Mondeuse, Alameda had one extra and three fine; Napa, one fine; San Joaquin, one fine and one good.

Of eight coloring varieties, Napa had one extra, one fine and one good; Alameda, one extra and one good; San Joaquin, one good.

Of two samples of Tannat, Alameda had one extra and one fine.

Of six samples of Malbec, Alameda had one extra, two fine and one good; Santa Clara had one fine and one good.

Of 21 samples of Medoc types, Napa had three fine and two good; Alameda, four extra, three fine, and three good; Santa Clara, one extra and one fine; San Joaquin, one extra and one fine.

Of 10 Sauternes, Napa had two extra and two fine; Alameda, five fine; Santa Cruz, one fine.

Of 20 specimens of Riesling, Napa had five fine and three good; Alameda, two fine and three good; Santa Clara, one extra; Sonoma, one good.

Of nine samples of Sauvignon Vert, Napa had two fine and three good; Alameda, two fine and one good; Santa Clara, one extra and one good.

Of seven samples of Burger, Napa had two good; Alameda, one fine and two good; Santa Clara and Santa Cruz, each one good.

Of 18 samples of Chasselas, Napa had one extra, six fine, three good; Lake, Solano and Los Angeles, each one good; Santa Clara, one extra, one fine; Sonoma, one fine.

Of nine samples of Chauche Gris, Santa Clara had one good; Santa Cruz, one fine, one good.

Napa exhibited two specimens of Palomino, one extra and one good.

Napa, Sacramento and Alameda each had one fine specimen of Verdelho.

Of three specimens of Verdal, Alameda and Merced each had one fine, and Santa Cruz one good.

Alameda had two samples of Folle Blanche, one extra and one good.

Of Sonoma's two samples of Fiher Zagos, one was fine, one good. The same is true of Santa Clara's specimens of White Mission.

Of 10 samples of port, Napa had one fine, one good; Alameda, one good; Los Angeles, one fine; Fresno, one fine; San Joaquin, one extra, two fine.

Of seven samples of sherry, Napa had one fine and one good; Santa Clara and Los Angeles each one good; Alameda, two extra and one fine.

Of five specimens of brandy, Napa had two good; San Joaquin, one extra, two good.

Of the experimental samples your committee reports that the State Viticultural Commission exhibited 36; of these there were four extra, nine fine and nine good types. The University of California furnished 56 samples, but your committee could not make any report upon them, as the wines were not good and were evidently made from unripe grapes, which came from vines too heavily loaded. We also consider that wines made in such small quantities do not show accurately what kind of wine the different varieties are capable of making.

The last paragraph in this report gives occasion for comments by Prof. Hilgard, which are given as University Bulletin No. 57, on page 294 of this issue.

Contra Costa Awake.

The Board of Trade, whose organization, for the purpose of drawing immigrants to Contra Costa county, was noted by our correspondent, "Quien Sabe," three weeks ago, has not been idle. The *Call* states that at a recent meeting of the board a number of the heaviest landowners in the county contributed liberally to the fund which has been established, and also announced that they were prepared to sell portions of their land in small sections in order to attract a population which is sorely needed for the proper development and progress of the county. Contra Costa claims, as an added advantage to its contiguity to S. F., as fine fruit soil as there is in California. Oranges and lemons thrive in Martinez and many other places, and other varieties of semi-tropical fruits abound in the valleys where frost is seldom seen.

The board consists of 200 members, who hope to induce enough small settlers to cast their fortunes there to encourage the building of railroads throughout the county, an enterprise which has been retarded in years past by the ownership of large tracts of land under the Spanish-grant system.

The list of officers is as follows: Pres., E. B. Smith, Martinez; Vice-Pres., Simon Blum, Martinez; Treas., Bank of Martinez; Sec., Will Acton, Martinez. Directors—M. A. Walton, Brentwood; Henry Hook, Pacheco; D. R. Thomas, Martinez; Nathaniel Jones, Walnut Creek; R. C. Terry, Clayton; C. C. Swain, Martinez; C. S. Lohse, Concord; D. Bush, 316 Sutter St., S. F.; F. H. Bee, 917 Clay St., S. F.; L. L. Robinson, 320 Sansome St., S. F.; Geo. Wiley, Danville; B. Fernandez, Pinole.

In a letter to the board, Dr. Strentzel enthusiastically writes: "There are places which, by the concentricity of exceptionally favorable physical and social conditions, are privileged as centers of trade and human development. Such was the region around Damascus along the banks of the rivers Pharpar and Abana, thousands of years ago, and such it remains to this day. It is admitted that Central California, around the Bay of S. F., is the most desirable portion of our State, and the gem of this priceless territory is covered by Contra Costa county."

The Fruit-Growers' Convention.

To the Fruit Growers of California and to all concerned: The State Convention of Fruit-Growers, under the auspices of the State Board of Horticulture, has been called by the State Board to assemble in the city of Riverside April 11, 1887, to continue one week. In connection with the convention a grand exhibit of citrus and other fruits and flowers will be made by the southern counties, especially by San Bernardino county. This exhibit is open to all, and all having inventions of value to horticulturists are requested to exhibit them. Space will be allotted to them if applied for the week before the convention opens. The Inter-Ocean Cold Storage Company will allow their buildings and process to be inspected daily; they will also have on exhibition fruits treated by their process since Feb. 9th. This the deciduous fruit-growers should not fail to see. Decay in fruit is arrested and it reaches its destination without loss to the shipper.

The great flower festival also opens the same week in Los Angeles. This is worth your visit.

The citizens of Riverside will attend to the reception of guests, and every visitor will be provided with proper accommodations. Those desiring accommodations and space in the pavilion will please address L. M. Holt, Riverside. Respectfully,

B. M. Lelong, Member State Board,
and Ch'n Com. of Arrangements.

Los Angeles, March 24, 1887.

It is announced, in this connection, that arrangements are being made to run an excursion from Los Angeles to Riverside over the new road from Pasadena to San Bernardino. This excursion is to be the first through passenger train over that line.

Not Ruled by Whisky.

Editors Press:—It is gratifying to see your columns open to discussion of the temperance question. I wish that the majority of papers were equally so, but they are not, and I have taken some pains to learn why. They are in bondage to the liquor traffic. Many of them get quite a portion of their advertising from saloons, hotels and liquor-selling merchants. Open warfare on the liquor traffic would forfeit this, so they are careful not to offend. I do not give this as mere inference or guesswork. It is what editors have told me in answer to complaints in the matter. Some editors, of course, are in sympathy with the whisky interest but most are opposed to it in principle, and, as far as they dare be, in practice, and it is but justice to them that their readers should know the difficulty they labor under, that it is really the liquor interest and not these editors that is ruling temperance reading out of their papers.

But this is not all. These papers are mostly political-party papers, depending on party patronage and doing their party's work. Their party is dependent on whisky patronage and catering to whisky interest. These papers are expected to follow the party lead and hew to the party chalk-line and no further.

Political partisanism is largely responsible for the scarcity of temperance reading in our county papers. The average county paper does very little temperance work, and seldom reports fully what others are doing. If their readers want information in that matter, they must look elsewhere for it; consequently many who take no other paper are quite poorly informed in regard to the magnitude and force of the great temperance movement in other localities.

Now, the Rural Press is supposed to be independent on the whisky question, and I hope it will remain so and meet the wants of its readers in this matter.

Free Water-Drinker.

[While fully alive to the truth of our correspondent's remarks, we think he overlooks the fact that a great many papers throughout the State are giving large and honorable space in their columns, week by week, to matter furnished and edited by members of the W. C. T. U.—Eds. Press]

The Irrigator.

The Dissolution of Injunction Law.

An Act relating to the dissolution and modification of injunctions, and amending Sections five hundred and thirty and five hundred and thirty-two of the Code of Civil Procedure. Approved March 24, 1887.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

Sections five hundred and thirty and five hundred and thirty-two of the Act of the Legislature of California, approved March eleventh, eighteen hundred and seventy-two, entitled "An Act to establish a Code of Civil Procedure," is hereby amended to read as follows:

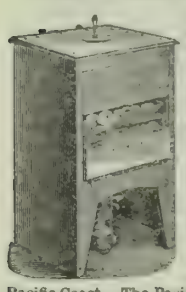
530. If the Court or Judge deem it proper that the defendant, or any of several defendants, should be heard before granting the injunction, an order may be made requiring cause to be shown, at a specified time and place, why the injunction should not be granted; and the defendant may, in the meantime, be restrained. In all actions pending or which may be hereafter brought, when an injunction or restraining order has been or may be granted, or applied for, to prevent the diversion pending the litigation of water used or to be used for irrigation or domestic purposes only, if it be made to appear to the Court that the plaintiff is entitled to the injunction, but that the issuance thereof pending the litigation will entail great damage upon the defendant, and that plaintiff can be fully compensated for such damages as he may suffer, the Court may refuse the injunction, upon the defendant giving a bond, such as is provided for in Section five hundred and thirty-two; and upon the trial the same proceedings shall be had, and with the same effect, as in said Section provided.

532. If an injunction be granted without notice, the defendant, at any time before the trial, may apply, upon reasonable notice, to the Judge who granted the injunction, or to the Court in which the action is brought, to dissolve or modify the same. The application may be made upon the complaint and the affidavit on which the injunction was granted, or upon affidavit on the part of the defendant, with or without the answer. If the application be made upon affidavits on the part of the defendant, but not otherwise, the plaintiff may oppose the same by affidavits or other evidence, in addition to those on which the injunction was granted. In all actions pending, or which may be hereafter brought, when an injunction or restraining order has been or may be granted or applied for, to prevent the diversion, pending the litigation, of water used or to be used for irrigation or domestic purposes only, if it be made to appear to the Court that great damage will be suffered by the defendant in case the injunction is continued, and that the plaintiff can be fully compensated for any damages he may suffer by reason of the continuance of the acts of the defendant during the pendency of the litigation, the Court, in its discretion, may dissolve or modify the injunction, upon the defendant giving a bond, with sureties to be approved by the Judge, and in such amount as may be fixed by the Court or Judge, conditioned that the defendant will pay all damages which the plaintiff may suffer by reason of the continuance during the litigation of the acts complained of. Upon the trial the amount of such damages shall be ascertained, and in case judgment is rendered for the plaintiff, the amount fixed as such damages shall be included in the judgment, together with reasonable attorneys' fees. Upon a suit brought on the bond, the amount of damages, as fixed in said judgment, shall be conclusive upon the sureties.

This Act shall take effect on and after its passage.

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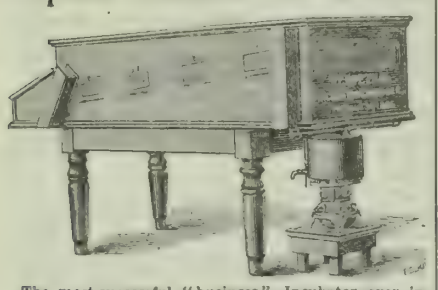
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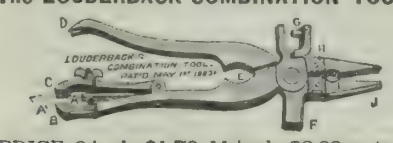
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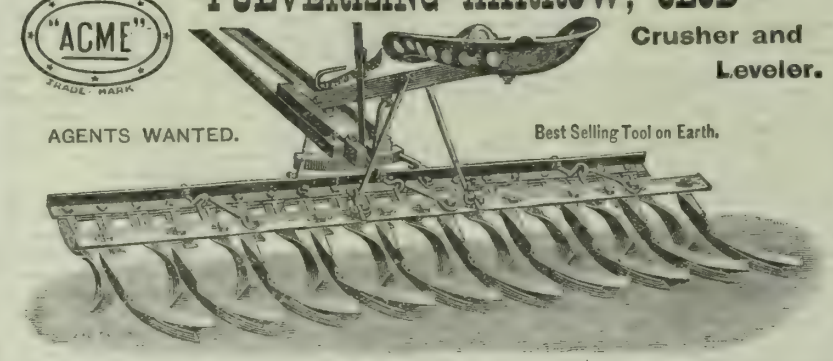
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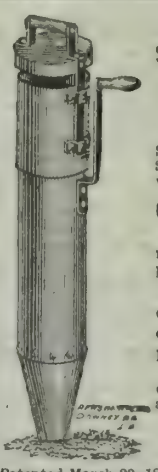
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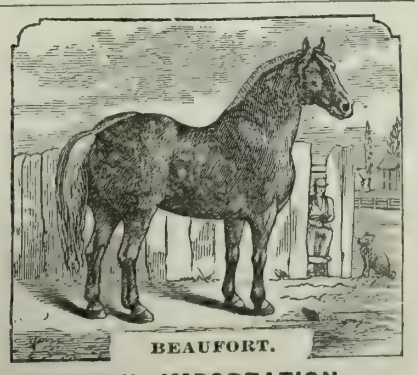
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☞Catalogue for 1887 sent free on application.

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Petaluma, Cal.

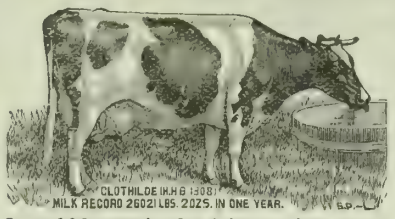
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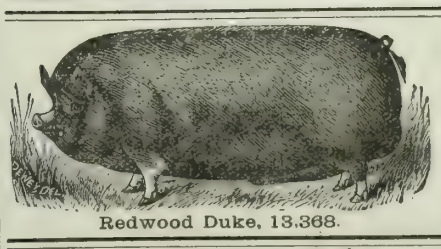
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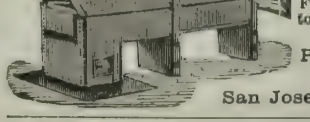
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S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 30, 1887.

Trading the past week was more active in all lines than at any time this year. This refers particularly to cereals, which, under bad weather reports, have been materially advanced with a strong closing at higher prices. Chicago and New York wheat markets have also been gaining strength. English advices report a better market by private cables, but semi-public cables are as follows:

LONDON, March 30, 1887.—Cargoes off coast quiet, but steady. Cargoes on passage and for shipment, steady. Mark Lane, quiet. California wheat, off coast, 38s to 38s 3d. California wheat, just shipped, 39s 6d. California wheat, nearly due, 38s. French country market, generally dearer. Liverpool wheat, spot, rather easier. Liverpool wheat, California, 7s 6d to 7s 9d.

Foreign Review.

LONDON, March 28.—The *Mark Lane Express* in its review of the week says that the grain trade does not improve. There has been a further decline in the values of the English wheat, although supplies are meager. The sales of English wheat during the week were 42,970 quarters at 33s per quarter, against 76,001 quarters at 40s 9d during the corresponding period of last year. Country flour has maintained its value. Foreign wheat is stagnant; the prospects of ample supplies from America, combined with the opening of the season of imports from Russia, Austria, and India, will cause values to sink much lower than even now. The week's decline in Liverpool amounts to 2s 2d. Flour is irregular and cheaper; some American brands are selling at 1s less. Oats and barley are heavy. Eleven cargoes of wheat arrived and one was sold; 8 were withdrawn and 2 remained. At to-day's market wheat was depressed. There was no buying even at the reduced quotations. Corn was 3d lower. Beans and peas were 9d cheaper. Linseed was 9d lower and at 37s 3d Ex-ship has touched the lowest price on record.

Crops at the East.

CHICAGO, March 27.—The *Farmers' Review* has the following crop report this week: Dry weather continues to prevail in Kansas and in portions of Missouri, which has caused some injury to the winter wheat, though very few serious reports of damage are made, except in the former State. In Sedgwick and some of the other southern counties of Kansas there has been very little rain since last August, while in Neosho, Manhall, and Salina counties the prospects are favorable. The tenor of reports from Missouri is still favorable for the crop. Illinois reports continue to be favorable, and the outlook is still regarded as very good for a full average crop.

Eastern Wool Markets.

BOSTON, March 26.—The aggregate business of the past week in wool, 2,350,700 lbs, shows considerable increase over last week; but the sales are composed largely of Australian wool, considerable of which was sold previous to arrival, but not reported. The market for domestic wool is about as reported for some time, although there has been some inquiry from manufacturers. The tone of the market is, on the whole, strong. Holders find it impossible to move new washed fleeces except at a liberal concession. Medium and coarse lots are held with rather more firmness than other kinds, owing to their comparative scarcity. Considerable uncertainty is found among the trade in regard to interstate commerce matters. The rate of freight will be advanced several cents per pound, from California, reaching up to 5 cents. As a consequence of the uncertainty which prevails, several buyers who usually started for California by this time in former years are now here awaiting whatever turn affairs will take. Territory wool continues quiet, and prices rule in favor of buyers. The sales have been 2,725,000 pounds, including 40,000 pounds medium Montana at 25c; 10,000 pounds fine medium Montana at 25c; 107,500 pounds fine and medium at 17 to 20c; 30,000 pounds fine Montana at 22c; 55,000 pounds fine at 16@20c; and 15,000 pounds fine at 19c. Oregon wools have been quiet, with sales of 50,000 pounds Eastern at 16@22c, and 75,000 pounds Eastern on private terms. California wool is dull. Spring wool might sell at low prices, but there is very little left here. Sales of only 30,000 pounds are reported. Prices are nominally the same. The receipts of the week have been 4921 bales domestic and 5177 bales foreign, against 2939 bales domestic and 2958 bales foreign for the corresponding week last year.

NEW YORK, March 26.—The market has not emerged from the unsettled and tame condition noted of late. There has been a general tendency to report "private terms" on more important transactions and there is really no good guide to a selling basis. The inference, however, is natural that a shading from former valuation has been made, and buyers have had rather an advantage; yet the concessions have not been very material. Sales of the week include 25 bales of scoured California at 52½c; 10,000 Montana at 21c; 100,000 Eastern Oregon, and 1000 fine Territory on private terms.

The Philadelphia market ruled quiet, though it does not appear that lower rates have been accepted than last week. Among sales are 10,000 pounds Territory at 23¼c; 50,000 pounds Oregon at 30¼c; 6000 pounds Montana at 25¼c; 25,000 pounds Territory improved at 21c; 6000 pounds California defective Fall at 16c.

London Wool Market.

LONDON, March 28.—There was a good attendance at the wool sales to-day. The brisk demand of the previous days was continued, and full prices were obtained for all kinds except greasy wools, which were slightly easier; 9493 bales were offered.

Eastern Wheat Markets.

NEW YORK, March 26.—*Bradstreet's* weekly review says: The attention of the wheat trade throughout the United Kingdom and the United States will soon center on the wheat situation in California. What the wheat harvest in California will be in 1887 cannot now be definitely determined. The wheat export movement from California has diminished to small proportions, being for the week ending March 19 only 161,667 bushels, and for the four weeks but 720,000 bushels. There has been an active demand at New York for cash wheat, this week, largely for continental Europe.

New York Hop Market.

NEW YORK, March 26.—The market still drags. Brewers take only a few bales, and show a preference for a decent article that may be secured for the fewest cents per pound. German hops fill the bill as a rule, more common grades at that, though choice Pacifics find buyers at fair prices. The coast crop of 1886, best, 20@22c; same, common to good, 16@18c; 1885, good to prime, 8@10c.

California Oranges in New York.

NEW YORK, March 26.—A cargo of California seedless oranges, from Los Angeles orchards, arrived to-day. There are between 60,000 and 70,000 oranges on board which came through by express in ten days. This is the advance of several cars now on the way, bringing 2,000,000 oranges. These are pronounced by experts the finest fruit in the world, and command nearly double the price of Floridas.

California Fruit in Chicago.

CHICAGO, March 26.—Oranges from all points are coming in more slowly than at the beginning of the week. There is a good supply on hand, including a liberal variety. The market is moderately active and steady, with no material change in prices. Choice oranges have a fair sale, while common are in good demand. Following are the prices quoted by the official circular: California bright Riverside, $3@3.50; do Santa Ana, $2.75@3; do Los Angeles, $2.75@3; do Navel oranges, according to quality, $5@6; do Duarte, $3@3.25; do San Gabriel, $2.75@3; do Blood oranges, fancy, $5@7; Tangerine, $3.25.

California dried fruits are steady, with stocks gradually becoming smaller. Prices range as follows: Prunes, French, ₩ lb, 8@9½c; plums, pitted, 10@11c; peaches, halves, 11@12½c; do, halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London Layers, 20-lb boxes, ₩ box, $1.40@1.50; loose Muscatel, ₩ box, $1.20@1.30; California Layers, ₩ box, $1.25@1.35.

Dried Fruit and Canned Goods East.

NEW YORK, March 26.—Canned goods are attracting little attention, but prices are quoted steady. Standard tomatoes in quantities, $1.05; peas, weak and offered freely; corn, scarce, particularly cheap grades; peaches, dull; California canned peaches, $2.25@2.50; pears, $2.50@2.75; plums, $1.75@2.

Dried Fruits—Raisins are in moderate jobbing demand, but the steadiest feeling prevails as to prices. Two-crown loose Muscatel, $1.20@1.25; do London layers, new, $1.55@1.60. For Turkish prunes there is a jobbing demand at 4⅝@4¾c; Bohemian are offered at 3¾@4c; French are easier at 6¾@7c. Currants are quiet at 4¾c. Citron (Leghorn) held steadily at 17¼@17½c.

California Products at New York.

NEW YORK, March 26.—Seeds—There is a quiet demand, with moderate transactions. California yellow mustard, 3¾@4½c.

Local Markets.

BAGS—The market for standard grain bags is dull and heavy, under free offerings and unfavorable crop advices. Quotations are nominally 5¾ to 6c.

BARLEY—The market, which has been gaining strength throughout the week, was excited and higher to-day, owing to unfavorable crop advices, a large short interest on Call, and a heavy consumptive demand. On Call, sales to-day were as follows:

Morning Session: Buyer season—600 tons, $1.09; 2000, $1.09¼; 300, $1.09⅜; 200, $1.09⅝; 1200, $1.09½; 500, $1.09⅝. Seller 1887—300 tons, $1.00; 100, $1.00½. Seller season—200 tons, $1.07; 100, $1.06¾. Buyer 1887—100 tons, $1.15; 300, $1.14¾; 100, $1.14½. No. 1 Brewing, buyer season—100 tons, $1.20; 100, $1.19¾. Afternoon Session: Buyer season—500 tons, $1.08¾; 400, $1.08⅝; 500, $1.08½; 200, $1.08¾. Seller 1887—100 tons, 99¼; 100, 99⅜; 100, 99½c; 100, 99⅝c; 100, 99⅞c ₩ ctl.

BUTTER—The market closed very weak, but if a scarcity of pasture is confirmed, it is only a question of time when higher prices will rule. Dealers are packing so as to meet distant orders.

CHEESE—The market is easy and weak, with sales as low as 10 cents per pound for choice. The demand is quite free, but the supply is large.

EGGS—The market for strictly choice gains in strength, under lighter receipts and a good demand.

FLOUR—Another and still higher advance is looked for at an early day.

WHEAT—The market ruled strong at steady advances up to to-day, when a decided advance was made, due chiefly to unfavorable crop reports and some shorts filling. The bulk of the short interest have wheat in store to meet their sales. To-day's sales on Call were as follows:

Morning Session: Spot, season's storage paid—500 tons, $1.70⅞. Buyer season—1900 tons, $1.76⅜; 600, $1.76½; 100, $1.76¾; 100, $1.77; 400, $1.77⅜; 1100, $1.77½; 1400, $1.77⅝. July—100 tons, $1.73¾. June—100 tons, $1.75. Buyer 1887—100 tons, $1.88; 100, $1.88⅜; 100, $1.89; 100, $1.89¼; 500, $1.89¾; 600, $1.90; 100, $1.90⅜; 1500, $1.90½. Seller 1887—200 tons, $1.67½; 400, $1.67¾; 100, $1.67⅞; 1300, $1.67; 300, $1.66⅞; 100, $1.66¾; 900, $1.66⅝; 500, $1.66½ ₩ ctl. Afternoon Session: Buyer season—200 tons, $1.77¼; 300, $1.77. Buyer 1887—300 tons, $1.90; 100, $1.89¾; 500, $1.89¼; 200, $1.89⅛. Seller 1887—400 tons, $1.66½; 100, $1.66⅜; 2700, $1.66¼ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Wheat has ruled strong at high prices throughout the week. The demand continues to be chiefly from short sellers on Call, as shippers claim they cannot pay present prices. Millers have bought more freely at from $1.63¾@$1.67½. The stock of wheat in the State is less than claimed and well concentrated. The hot north winds of last week did considerable damage to crops in the San Joaquin valley and also in parts of the Sacramento valley. It is claimed by those who ought to know that while many fields have been irreparably damaged for this year, there are many more that will be made to yield good crops, provided seasonable rains fall. There are many dealers who are short on the market that hold to a contrary opinion, but the most reliable advices confirm our reports of severe damage by north winds. On the irrigated and lowlands the crops cannot look better.

The London correspondent of *Bradstreet's* says: "The wheat trade is still dull, and though nearly every one seems to expect an advance in prices, but few are prepared to back the opinion by speculating for a rise. The state of affairs is certainly anomalous. Half the cereal year has elapsed, and our imports of wheat and flour have been only a little over 8,500,000 quarters, while we require about 19,500,000 altogether in addition to our home supply of 7,000,000 quarters to meet the consumptive demand of the cereal year, without reducing stocks below the comparatively low level at which they stood at the beginning of the period. That is to say, we have nearly 11,000,000 quarters to import during the next six months. At this time last year we had imported nearly 8,000,000 quarters, and required only 7,500,000 more for the remaining half year, while the aggregate surplus in exporting countries was much greater than it is to-day. Two years ago our imports for the first half of the cereal year had been about the same as those received during the last six months, and, considering the greater stocks at home, we required at least 2,500,000 quarters less than we need now up to the last of August, while available foreign supplies then, as last year, were much larger than they are at the present time. Another circumstance to be considered is the greater demand on the continent of Europe than during the two previous years."

Barley held to strong prices throughout the week under better concentration and a good consumptive demand. Unfavorable crop weather the past two weeks has done no little in bringing about the improved market. Shipments of the better grades to the East have been on an extended scale, so as to take advantage of the present low rate of freights.

Oats are stronger and a shade higher for the better grades, under firmer holding, light stocks, light supplies to draw from, and a good demand. Several shipments have been made to Oregon ports, where, it is claimed, prices are higher than here.

Rye and buckwheat are unchanged.

Feedstuffs.

Bran and middlings are strong under continued scarcity, but as several mills have been buying wheat more freely, it is quite probable that the supply will increase.

Oilcake meal is steady, with a good demand ruling.

Continued dry weather and free demand cause hay to rule strong. The demand is chiefly consumptive. It is now conceded that the crop this year will be considerably short of last years, while the consumption will be much larger.

Fruits.

Free receipts of oranges obtained throughout the week, but as the weather was warm the demand was heavy, causing the market to clean up well for the better grades. The North draws quite freely. Limes and lemons are in good supply with an improved call reported.

Apples are heavy and moved with difficulty, as the demand is light.

Advices regarding the fruit crop prospects are of the most encouraging character.

Dried fruits continue to rule strong, with another advance reported. The stock here is light, owing to heavy shipments to the East.

Raisins are fairly steady at the low prices current. The stock here is not large for the season. Eastern advices report an improving demand.

Live-Stock.

On Saturday last, quite an advance was made in beef cattle, under a better combination by sellers. The latter claim that there is a scarcity of choice bullocks, owing to the poor pasture. They state that the hot winds of the past week matured the grass on the best grazing lands, consequently there will soon be a shortage of feed. The number of cattle to be drawn from Nevada is placed at not over 6000 head, while there are none, as yet, available from Arizona. Under free offerings of mutton sheep, the market is easy, with some shading in values reported. The free selling is due to owners desiring to market their best condition sheep before driving their flocks to the mountain ranges. Calves continue weak, owing to dairymen still forcing the market. Hogs are easier. Horses are reported unchanged, as are milch cows.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 9½@10c; first grade, grass fed, 9@9½c per lb.; second grade, 8@8½c; third grade, 6½@7½c.

MUTTON—Ewes, 6¾@7c; wethers, 7½@8c.

LAMB—Spring, 12½@15c.

VEAL—Large, 6@8½c; small, 5@8c.

PORK—Live hogs, 4¾@5¼c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5¼c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Under lighter receipts and an improved demand potatoes are strong at a slight advance, with the tendency to a still higher range. New potatoes come in sparingly, causing buyers to pay well up.

Onions are stronger and higher, under light receipts and a good demand for choice.

Asparagus and other seasonable vegetables are coming in quite freely, causing the market to rule easy. Winter vegetables are in light supply, but then the demand does not appear quite so urgent.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	207,997	182,451
In port, disengaged	102,089	58,000
In port, engaged	16,823	26,969
Totals	326,909	257,420

The above gives a carrying capacity as follows: 1887, 523,051 short tons; 1886, 411,872 short tons; increase over last year, 111,179.

Honey holds strong, as does beeswax, with free shipments to the East. Hops are firmer, with an advance asked. About 2000 bales were shipped to the East the past week. New York advices are not favorable regarding the crop prospects.

About all the carryover wool has been shipped, leaving the market bare for the incoming clip which will begin to come forward quite freely in next month. Buyers are offish, owing to the higher freight tariff.

Hams and lard are stiffer.

Poultry is strong at higher quotations, under lighter receipts.

Beans have been shipped to the East in larger quantities, causing a stronger market with us under lighter stocks.

San Francisco, March 30, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 30, 1887

BEANS AND PEAS			Paper shell	12	@ 20
Bayo, ctl	1 65	@ 2 10	Brazil	11½	@ 13
Butter	1 35	@ 1 65	Pecans	9	@ 11
Pea	1 75	@ 1 90	Peanuts	4½	@ 5
Red	1 25	@ 1 50	Filberts	10	@ 11
Pink	1 25	@ 1 45	Hickory	7	@ 8
Large White	1 75	@ 1 90	**POTATOES.**		
Small White	1 75	@ 1 95	Burbank	1 50	@ 1 90
Lima	1 75	@ 2 25	Early Rose	1 50	@ 1 80
Fld Peas, blk eye	1 00	@ 1 05	Cuffey Cove	1 60	@ 1 80
do green	1 00	@ 1 12½	Jersey Blues	1 75	@ —
do Niles	1 25	@ —	Petaluma	—	@ —
BROOM CORN.			Tomales	1 50	@ 1 80
Southern per ton	50	@ 75	River reds	1 50	@ 1 80
Northern per ton	50	@ 75	Humboldt	—	@ —
CHICORY.			do Kidney	—	@ —
California	4	@ 4½	Chile	—	@ —
German	6½	@ 7	do Oregon	1 25	@ 1 75
DAIRY PRODUCE, ETC.			Peerless	1 60	@ 1 80
BUTTER			Salt Lake	—	@ —
Cal. fresh roll, lb	14	@ 17½	New Potatoes	3	@ 4
do Fancy br'nds	17½	@ 19	**POULTRY AND GAME**		
Pickle roll	—	@ —	Hens, doz	6 00	@ 8 00
Firkin, new	15	@ 16	Roosters	6 00	@11 00
Eastern	—	@ —	Broilers	5 00	@ 8 00
CHEESE			Ducks, tame	8 00	@11 00
Cheese, Cal., lb	8	@ 11	do Mallard	3 00	@ —
Eastern style	12½	@ 13½	do Sprig	1 00	@ —
EGGS.			Geese, pair	2 00	@ 2 25
Cal., ranch, doz	17	@ 18	do Goslings	2 50	@ 3 00
do, store	14	@ 16	Wild Gray, doz	75	@ 1 00
Ducks	—	@ —	Turkeys, lb	18	@ 22
Oregon	—	@ —	do Dressed	19	@ 22
Eastern	14	@ 16	Turkey Feathers, tail and wing	10	@ 20
Utah	—	@ —	Snipe, Eng., doz	—	@ —
FEED.			do Common	—	@ —
Bran, ton	18 00	@18 50	Doves	—	@ —
Cornmeal	23 00	@24 00	Quail	—	@ —
Grd Barley ton	23 00	@24 00	Rabbits	1 00	@ —
Hay	9 00	@14 00	Hare	1 25	@ —
Middlings	23 00	@24 50	Venison	—	@ —
Oil Cake Meal	26 50	@28 50	**PROVISIONS.**		
Straw, bale	40	@ 60	Cal. Bacon, Heavy, lb	9	@ 10
FLOUR.			do Medium	9	@ 10
Extra, City Mills	4 35	@ 5 00	do Light	11	@ 12½
do Country Mills	3 90	@ 4 50	Extra Light	13	@ 13½
Superfine	3 00	@ 3 85	Lard	8	@ 12
GRAIN, ETC.			Cal. Smoked Beef	11½	@ 12½
Barley, feed, ctl	1 02½	@ 1 10	Hams, Cal	11	@ 13
do Brewing	1 10	@ 1 20	do Eastern	14	@ 15½
Chevalier	1 45	@ 1 60	**SEEDS.**		
do Coast	90	@ 1 45	Alfalfa	9	@ —
Buckwheat	1 00	@ 1 20	Canary	3½	@ 4
Corn, White	1 00	@ 1 07½	Clover red	12	@ 13
Yellow	1 00	@ 1 05	White	17	@ 18
Small Round	1 05	@ 1 15	Cotton	20	@ —
Nebraska	97½	@ 1 02½	Flaxseed	2	@ —
Oats, milling	1 65	@ 1 70	Hemp	4	@ 4½
Choice feed	1 50	@ 1 60	Italian RyeGrass	25	@ —
do good	1 45	@ 1 47½	Perennial	7	@ 9
do fair	1 35	@ 1 40	Millet, German	4½	@ 5
do black	1 40	@ —	do Common	4	@ 4½
do Oregon	1 35	@ 1 65	Mustard, white	3	@ 3½
Rye	1 10	@ 1 25	Brown	2 25	@ 2 75
Wheat milling, Gilt edged	1 67½	@ 1 71½	Rape	1	@ 1½
do Choice	1 63½	@ 1 67½	Ky. Blue Grass	11	@ 13
do fair to good	1 60	@ —	3d quality	11	@ 12
Shipping choice	1 65	@ 1 67½	Sweet V. Grass	75	@ —
do good	1 60	@ 1 63½	Orchard	20	@ 25
do fair	1 55	@ —	Red Top	15	@ —
HIDES.			Hungarian	8	@ 10
Dry	—	@ 16	Lawn	30	@ 40
Wet salted	8	@ 9½	Mesquit	10	@ 12
HONEY, ETC.			Timothy	5½	@ —
Beeswax, lb	20	@ 22	**TALLOW.**		
Honey in comb, fancy	9	@ 12	Crude, lb	2	@ —
Honey in comb, fancy	13	@ 14½	Refined	6	@ —
Extracted, light	4	@ 4½	**WOOL, ETC.**		
do dark	3½	@ 4½	**SPRING—1886**		
HOPS.			Humboldt and Mendocino	18	@ 21
Oregon	17½	@ 22½	Sacto valley	14	@ 17
California	15	@ 22½	Free Mountain	17	@ 18
ONIONS.			N'hern defective	—	@ —
Pickling	—	@ —	S Joaquin valley	10	@ 13
Silversalm	1 50	@ 2 50	do mountain	13	@ 15
NUTS—JOBBING.			Cavay & Ft'll.	13	@ 15
Walnuts, Cal., lb	12½	@ 13½	Oregon Eastern	15	@ 20
do Chile	—	@ —	do valley	18	@ 22
Almonds, hd shl	5	@ 7	Southern Coast	9	@ 13
Soft shell	15	@ 19			

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 30, 1887.

Apples, bx com	75	@ 1 25	do evaporated	16	@ 18
do choice	1 50	@ 2 25	Peaches	8	@ 10
Bananas, bunch	2 00	@ 3 25	do pared	18	@ 20
Blackberries, ch	—	@ —	do evaporated	20	@ 30
Canteloupes, cr	—	@ —	Pears, sliced	5	@ 6
Cherries blk	—	@ —	do qrtd	4	@ 5
do Royal Ann	—	@ —	do evaporated	8	@ 10
Cherry plums	—	@ —	Plums, pitted	9	@ 10
Crabapples	—	@ —	do unpitted	3	@ 5
Cranberries	10 00	@12 50	Prunes	6	@ 10
Currants chest	—	@ —	do French	10	@ 13
Figs, bx	—	@ —	Zante Currants	8	@ —
Grapes	—	@ —	**RAISINS.**		
do Rose Peru	—	@ —	Deheza Clus, fcy	2 40	@ 2 50
do Muscat	—	@ —	Imperial Cabinet, fancy	1 75	@ —
do Tokays	—	@ —	Crown London Layers, fcy	1 50	@ —
Isabel	—	@ —	do Loose Muscatels, fancy	1 40	@ —
Wine, Zinfandel	—	@ —	do Loose Muscatels	1 35	@ —
do Mission	—	@ —	Cal. Valencias	1 25	@ —
Limes, Mex	—	@ —	do Layers	1 25	@ —
do Cal. box	75	@ 1 50	do Sultanas	1 25	@ —
Lemons, Cal., bx	1 25	@ 1 75	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.		
do Sicily, box	2 00	@ 3 00	**VEGETABLES.**		
do Australian	—	@ —	Artichokes, doz	—	@ —
Nectarines box	—	@ —	Asparagus ₩ bx	1 00	@ 1 75
Oranges, Com bx	1 25	@ 1 75	do cultivated	—	@ —
do Choice	2 00	@ 3 00	Okra, dry, lb	15	@ 20
do Navels	3 50	@ 5 00	do green box	—	@ —
do Panama	—	@ —	Parsnips, ctl	1 50	@ —
Peaches, bx	—	@ —	Peppers, dry lb	10	@ —
do bask	—	@ —	do green, lb	20	@ 25
Crawfords, bx	—	@ —	Pumpkins per ton	—	@ —
do bskt	—	@ —	Squash, Marrow fat, ton	10 00	@12 00
do choice	—	@ —	do Summer bx	—	@ —
Pears bx	—	@ —	String beans lb	10	@ 15
do choice	—	@ —	Tomatoes box	1 25	@ 1 75
Pineapples, doz	4 00	@ 5 00	Turnips ctl	25	@ 60
Pomegranates, b	—	@ —	Beets, sk	75	@ —
Prunes bx	—	@ —	Cabbage, 100 lbs	1 30	@ 1 55
Quinces bx	—	@ —	Carrots, sk	35	@ —
Raspberries ch	—	@ —	Cauliflower, doz	—	@ —
Strawberries ch	—	@ —	Eggplant, ₩ lb	12½	@ 15
Watermelons 100	—	@ —	Garlic, lb	2	@ 3½
DRIED FRUIT			Green Corn, small box	—	@ —
Apples, sliced, lb	5	@ 7	do large box	—	@ —
do evaporated	11	@ 12½	Green Peas, lb	4	@ 5
do quartered	4	@ 5	Sweet Peas	5	@ 6
Apricots	13	@ 15	Lettuce, doz	10	@ —
do evaporated	20	@ 25	Lima Beans lb	—	@ —
Blackberries	9	@ 11	Mushrooms, lb	12½	@ 20
Citron	28	@ 30	Rhubarb lb	6	@ 8
Dates	9	@ 10			
Figs, pressed	5	@ 6			
Figs, loose	3	@ 4			
Nectarines	8	@ 10			

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by Nelson Gorom, Sergeant Signal Service Corps, U. S. A.]

DATE. Mar. 24-30.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.13	51	NW	Cy.	.00	67	S	Fr.	.00	68	S	Fr.	.00	58	SW	Cl.	.00	72	S	Fr	.00	67	SW	Fr.
Friday	.04	51	NW	Cy.	*.—	66	N	Cl.	.00	60	NW	Cl.	.00	58	W	Cl.	.00	65	W	Cl	.00	63	W	Fr.
Saturday	.00	53	N	Cl	.00	72	N	Cl.	.00	65	NW	Cl.	.00	59	NE	Fr	.00	66	W	Cl.	.00	61	W	Cl.
Sunday	.00	59	E	Fr	.00	70	S	Cl.	.00	69	SW	Cl.	.00	61	SW	Cl	.00	77	W	Cl	.00	63	NW	Cl.
Monday	.66	49	S	LR	.00	66	S	Fr.	.00	70	S	Fr.	.00	61	W	Cy	.00	75	W	Cl.	.00	61	NW	Cl.
Tuesday	.08	54	SW	Fr.	.00	69	NW	Cl.	.00	64	NW	Cl.	.00	65	W	Fr.	.00	72	SW	Cl	.00	62	SW	Cl.
Wednesday	.00	59	E	Fr.	.00	75	N	Cl	.00	63	NW	Cl	.00	60	W	Cl.	.00	68	SW	Fr.	.00	65	SW	Cl.
Total	.91				* —				00				00				00				00			

Explanation.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

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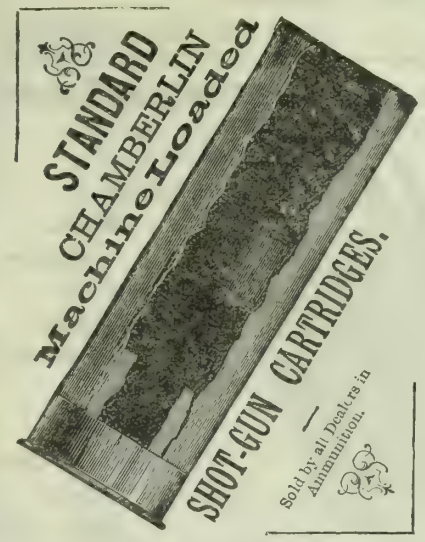
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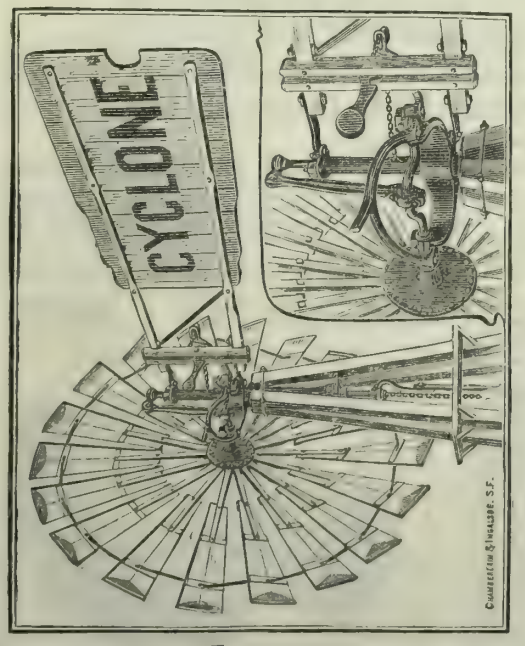
T. A. LAUDER, Manager.

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Tulare, Cal., March 21, 1887.

Pacific Manufacturing Co., San Francisco, Cal.—Some time in November I met your agent, Bartholomew, and he wanted to put me up a windmill. I told him he could put one up on trial if it would run without wind, or if he would furnish the wind to run it; and he said it would come as near running without wind as could be. So he put up a CYCLONE mill on these conditions, and agreed to take it down at his own expense if it did not suit. Well, sir, it has been up about three months, and it has always furnished plenty of water for my stock. It is about two and one-half miles from where I live, and all I have to do is to go once a week and oil it. Now I would not part with it for $500 if I could not get another like it, and in a short time I want another. It is a wonderment to all that see it; it runs with so little wind, and in a gale it stops and does not run at all. They are the "Boss" mill. S. S. INGHAM.

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12-Foot Mills,	- - -	65.	18-Foot Mills, - - - 125.
14-Foot Mills,	- - -	75.	20-Foot Mills, - - - 150.
16-Foot A Mills,	- - -	90.	22-Foot Mills, - - - 175
24-Foot A Mills,	- - -	$200.	

SELF-REGULATING

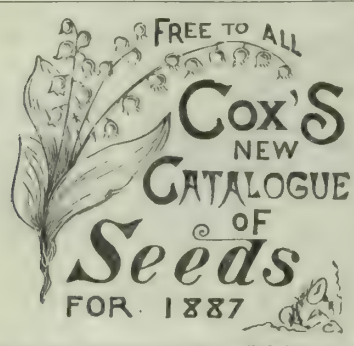
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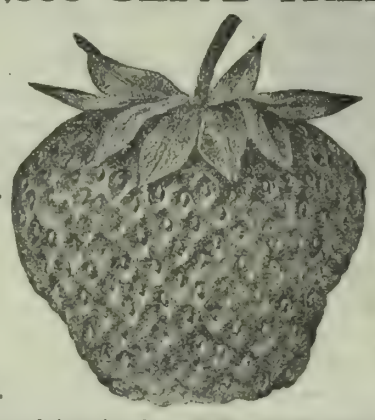
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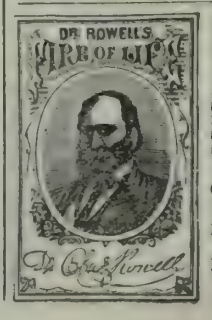
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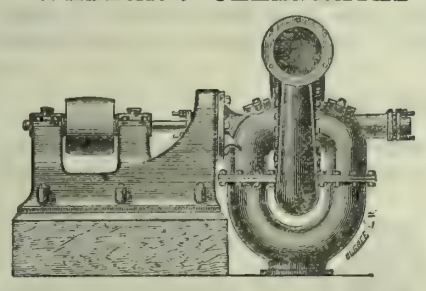
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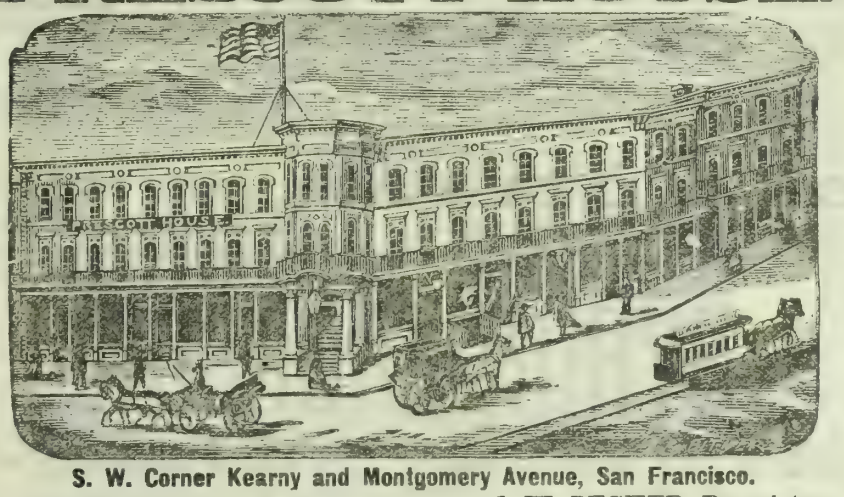
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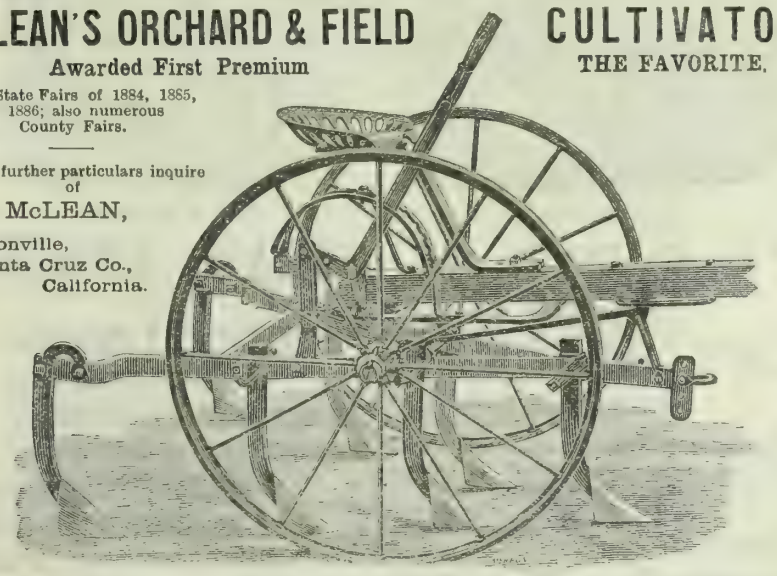
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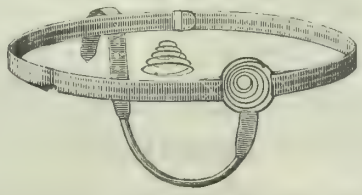
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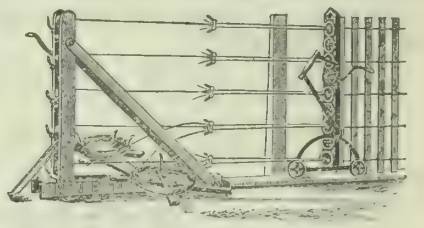
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BECAUSE it is more **evenly twisted**, thus giving **full strength of both wires.**

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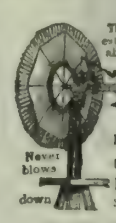
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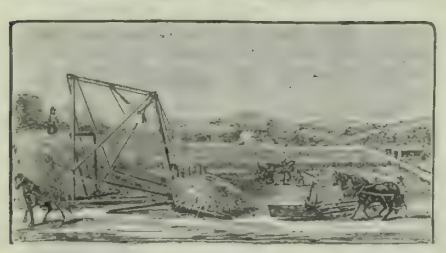
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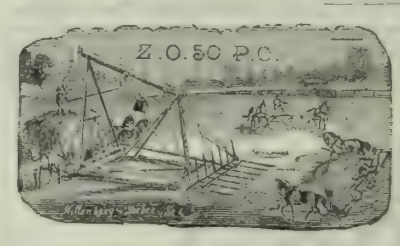
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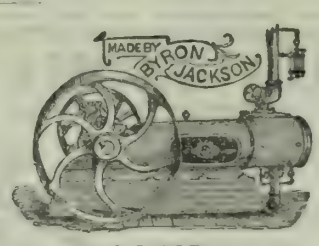
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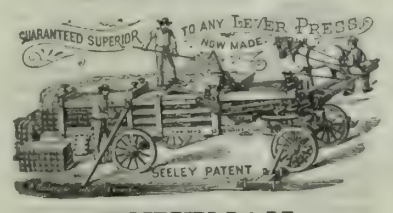
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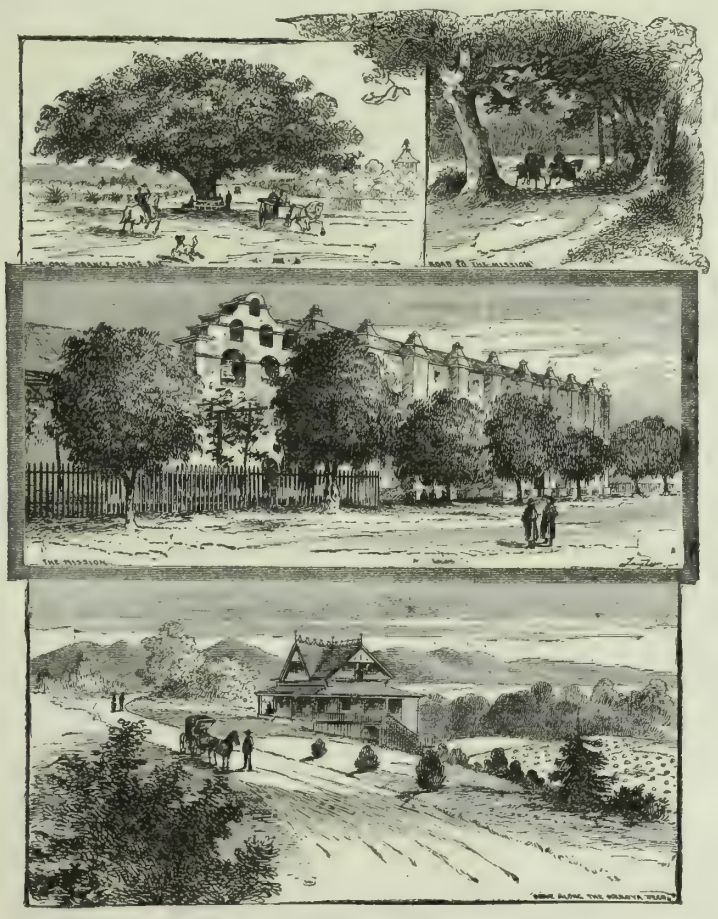
Southern California Sketches.

Our engravings give little glimpses of some points of interest in Southern California. In a country where there is such a profusion of charming scenes, acceptable either for beauty or historic interest or as exponents of recent progress and development, it is hard to make selection. A choice must be made, however, and the artist has consulted his own inclination. In the upper left-hand corner is one of our grand native oaks, which will convince the stranger that though California has great open plain-like valleys, and is frequently described as a treeless country, we have really great resources in arboreal beauty, in addition to the sequoias which we are generally credited with. Our California oaks are indeed grand trees and they are well scattered over the State. The engraving gives a good idea of the symmetry of the tree, although many specimens would be even more beautiful than the one here sketched, because of greater hight in proportion to the breadth. At the upper right-hand corner is shown a roadway lying through a grove of these oaks—a scene such as can be enjoyed in many parts of the State—the special location in this case being near Pasadena.

In the center the artist gratifies his historic inclinations, and gives us a picture of the famous San Gabriel Mission church, an old structure which is being closely pressed upon by the march of improvements—the locomotive screaming by it on one side, the dusty highway on another—while the orchards and vineyards occupy the old lands of the *padres*.

In the lower picture is a newly established cottage home, with its vineyard on the lower ground, and beyond, over the trees, lies the wide valley encompassed by foothills. This is on one of the mesas, beautiful for outlook and desirable for rich warm soil and genial air—mesas which are now being thickly covered with villas surrounded by orchards and vineyards.

In the brace of little pictures below are given two glimpses of Riverside, whose fame is golden—the place where next week the golden citrus fruits will be displayed in rich profusion, and the wise men of the West will meet to discuss obscure problems in horticulture. One sketch gives a bird's-eye view of Riverside, but shows only a small fraction of the territory which by enterprise, and money, and water, has been transformed in less than a score of years from a hunting-ground for coyotes into a garden spot, whose wealth reaches millions and whose reputation is world-wide. The other sketch shows a section of Magnolia avenue, with its handsome border of trees and palms—a drive which for length and beauty is unparalleled.



SCENES IN LOS ANGELES COUNTY.



A GLIMPSE OF RIVERSIDE AND MAGNOLIA AVENUE.

Orange Shipments.—A perfect stream of oranges poured out of Southern California eastward last week to get away before the incoming of the new Interstate tariff sheet. It is said that seven trains went by the Southern Pacific. On Saturday the California Southern railroad sent out two big special trains of oranges over the Santa Fe route. One was its regular Saturday night special and consisted of 16 cars. The Earl Fruit Company, which recently succeeded to the large fruit business of Edwin T. Earl, shipped an entire train of oranges, consisting of 15 cars, to the East Saturday. The train was expected to make fast time—nearly equal to passenger trains—to the Missouri river. This is claimed to be the first train of fruit ever sent East by one firm from California. The Earl Fruit Company will send East one or two trains each week during the remainder of the orange season.

Modena, the Quaker settlement in Los Angeles county, has had its name changed to Earlham, and obtained a postoffice under the new name.

Santa Barbara's Rose Fair.—The Horticultural Society of Santa Barbara are to give their annual spring display of flowers and citrus fruits in the pavilion on the 12th, 13th and 14th. Their former exhibitions have been famously successful; but they aspire and mean to have the one next week outdo all its predecessors. Roses will, as heretofore, hold the place of honor among the flowers, and growers are requested to affix the name—so far as possible—to each variety. An expert committee will be appointed to correct all misnomers. Ample space will be given to exhibits of citrus and other fruits.

Los Angeles Flower Festival.

The spring flower festival in Los Angeles, of which we gave a notice in our issue of March 12th, is one of the important events of the year, socially and floriculturally, in the southern metropolis. Those who go south next week to the Riverside Convention should visit Los Angeles also, if possible, while the floral fair is in progress. It is expected that the new pavilion will be ready for this year's fair, and work upon it is now being pushed with the utmost speed. It is to be a building of large size, as we infer from a local account which speaks of six arches of 168 feet span, with roof of corrugated iron, etc. The fair is announced to open April 12th, and, as Sunday, April 10th, is Easter, it is planned to make the decorations then gathered serve a second purpose in the pavilion. We notice that adjacent towns are preparing contributions, and the prospect is that an exhibition far in advance even of the wonderful creations of previous years will be secured. The object is to aid local charities, and large sums of money have been secured on former occasions. The ladies in charge are well organized, have made elaborate preparations, and, with the energy they are constantly putting forth in the matter, have good reason to look forward to a glorious success.

Hog Cholera.

Upon another page will be found an interesting article on hog cholera written in a popular style by one of our local veterinarians, Robert J. Dawson, V. S. The alarming reports which are coming in of the prevalence of this dread disease lead us to express the desire to minister to the needs of our readers for information in every way possible. This can be most effectually done if those having the disease among their hogs or in their neighborhoods would write us accounts of its occurrence, its manner, extent and results. By getting possession of such facts our contributors on these subjects can write more directly and usefully to our readers. California has enjoyed hitherto an enviable reputation for healthy hogs and sound pork, and such reputation should be maintained. It may be by prompt action and circumspection on the part of hog-growers. Our climate and our method of growing hogs generally favor the health of the animals, but hygienic rules must be known and observed with hogs as with human kind, even when surrounded by our glorious climate. We think we can aid our readers with suggestions toward that end, and are fully disposed to do so.

Temperance and Hygiene.—There will be general satisfaction over the passage of the amendment to our school law, passed by the recent Legislature. This amendment makes it a part of the public school instruction of every child in the State to be taught the hygienic effects of all narcotic and alcoholic stimulants. The bill passed both houses unanimously, and was signed by the Governor on March 16th.

The rye crop along the Merced river is looking well and there is a large acreage of it.

THE VETERINARIAN.

Hog Cholera.

EDITORS PRESS :—This name for the disease is misleading, because, in the majority of cases, there is constipation of the bowels. Diagnostic symptoms, prior to death, are not well marked. The animals may linger for several days, and in addition to ordinary symptoms of ill-health red and blue patches upon the abdomen may be seen. These are noticed during the latter stages of the disease. On being called to a number of animals dying in a mysterious manner, the veterinarian proceeds to make minute inquiries and post-mortem examinations, and if necessary microscopic investigations.

Post-Mortem Appearances.

Mucous membrane of intestines shows patches of inflammation differing from ordinary inflammation in not being evenly diffused over the surface. Mesenteric glands are altered in character, being inflamed. The lungs are in some cases also affected. In fact, in advanced stages of the disease, where the animals have been allowed to die from its effects, almost all the organs and tissues show signs of the presence of some agent which has produced extensive blood-poisoning. Another post-mortem appearance is tumefaction, or hardening of the small glands of the intestines. Ulcers also are frequently noticed, and these resemble much in appearance those occurring in typhoid fever of man. Inflammation occurs in the lymphatic structure generally, especially the intestines. Sloughing of the dead tissue in the intestine produces ulcers. The changes in the mesenteric glands are secondary to those of the intestines.

Microscopic Matters and Investigations.

In making investigations it is advisable to either kill the diseased animal, or, if allowed to die actually from the effects, to at once make the necessary specimens; as organisms, the result of post-mortem decomposition may develop and thereby hinder the examination. *Bacillus suis* is the term given to the hog-cholera germ, and they may be found in the excrement and in all morbidly affected tissues. After the animal has actually become affected with the disease germ, these germs increase in number and alter in character. This is called the period of incubation. With proper heat and an adequate supply of oxygen, they soon develop and grow lengthwise, by a kind of budding process. They cease to exist when decomposition and putrefaction set in. They will be found in very large numbers in the blood of living diseased pigs. The period of incubation varies from three to seven days after inoculation. It has been proved that virus, after having been exposed to the atmosphere for several days, will yet be capable of producing the disease. This is important, as it is plain that excrement, etc., which is contaminated with the germs, being conveyed in railway trucks, may in this manner take the disease to the most distant States. I think that experiments should have been carried further in testing the question of infection through the air alone. The following experiment, by modification of the virus, through infection, producing the disease in so mild a form as not to kill the animal, yet perhaps sufficient to render the pig non-susceptible to another inoculation, is given: Dr. Law, in 1878, during investigations (Reports of Agricultural Matters) upon hog cholera, placed a healthy pig in a pen between two infected ones, and with the ventilating orifices within a foot of each other. Internal temperature elevated on the ninth, tenth and eleventh days, with lameness in the right shoulder. On the twenty-fourth day the temperature rose two degrees and remained 104° F. and upward for six days, when it slowly declined to the natural standard. Rabbits and mice are very susceptible to the disease, and becoming infected, as they often do, by eating from the same trough as the diseased pigs, they may carry the infection to places at a distance.

General Remarks.

In veterinary practice we have this advantage over practitioners in human medicine—we can stamp out a contagious disease by destroying the affected animals. To destroy and burn the diseased, to thoroughly disinfect the premises and isolate infected places, are the only methods to prevent spread of disease. Stamping out the cattle plague in England, some years back, was successful. When we consider the great number of ailments the pig is subject to—contagious, parasitic, etc.—it seems very strange that it does not occur more forcibly to our minds that much of that disease may be, nay, I will say must be, due to a great extent to the horrible filth which the poor animal eats and in which he sleeps. In the State of California this dirty state of things, or very objectionable manner of manufacturing pork, does not exist to such an extent as it does in other parts of the world. In a State of nature the animal finds a new and clean bed every night, and maintains himself upon healthy food. Many people imagine that anything is good enough for a pig to eat and drink, seeming to forget that the filthy material enters their own stomachs in an altered condition, in the shape of ham or sausages. In Canada I have frequently seen pigs lying for weeks and months in a pen where absolutely no straw has been thrown, and the animals reposing in heaps of dung. In some places I have noticed pigpens in immediate contact with human excrement, coming from a neighboring privy. And although it may, to some extremely sensitive minds, appear too disgusting to mention such a matter, these animals were in the habit of devouring human fœces, and there is no doubt that it is in this way pigs may become infected with the same parasites that occur in man.

I am not wandering from the subject at issue when I state these matters, because I maintain they indirectly bear upon it. We know, beyond a doubt, that pigs and other animals may and do take into their stomachs the eggs of parasites; then why should they not also swallow in the same manner these germs of hog cholera?

Food for swine in England is termed "swill," and this consists of refuse of all kinds—vegetables, etc.—and this food, if it deserves the name, forms a suitable habitat for any disease germs that may be floating in the atmosphere.

Inoculation.

Experiments so far go to prove that inoculation is a success, but I consider that good would result from further research in that particular direction. Probably the virus, after having been passed through the body of some other animal, and thereby modified, as in the case of vaccination, might be as beneficial in the case of hog cholera as in smallpox. A very large number of diseases are now known to be due to germs, and although we do not think to rid the world of all this trouble by the use of some wonderful cure, yet it may be possible to control (and as a matter of fact it is) these outbreaks by adopting proper precautions. The varying length of periods of incubation in different animals depends upon the individual peculiarities or accidents that may affect the development of the bacillus. Again, the varying length of time in which animals die is due to the organs affected; if vital, then death ensues quickly, but in some cases no important organs are much diseased, and then the pig may live several days.

Dr. Detmer, in Agricultural Report, 1878, says: "Dirt and nastiness, consumption of unclean food and of dirty water, facilitate an infection, and warmth and moisture, pregnant with organic substances, are undoubtedly well calculated to preserve the bacillus germs and to develop the bacilli." It has been proved that these germs may be transmitted from pigs to other animals, and although actual proof that man may become infected is wanting, yet circumstances and everything point in that direction. It seems to me that cremation would be a much better method of disposing of the infected carcasses than the ordinary plan of burial. As a matter of fact, I know that at certain farms in England, where anthrax has existed, and the diseased animals have been buried, the disease has remained latent for a certain length of time, sometimes years, and it has then broken out again, and at the same particular spot, or the identical pasture in which the diseased carcasses were previously buried. Now, although scientific men have to be very careful not to accept anything as a fact unless clearly proved, yet such evidence as the above, if further research were made, would, methinks, lead to established facts of much importance. Again we know that under certain conditions these germs will remain in a fruitful state for a great length of time, and that cold, much below freezing point, does not affect them. To repeat, I maintain that cremation of the carcasses would be an effectual method of preventing the spread of the disease germs.

In conclusion, there is no doubt that comparative pathology has been in the past much neglected. Many diseases in man are known to be clearly traceable to the consumption of diseased meat, and a large number still remains to be shown to come from the same source.

ROBERT J. DAWSON, V. S.

225 Geary St., S. F.

THE IRRIGATOR.

Fresno Irrigators Rejoicing.

There was great rejoicing in Fresno county when it became known that the Governor had approved the Act allowing courts to dissolve or modify injunctions in water-suits; and on Saturday evening, March 26th, a mass meeting, under the auspices of the Board of Trade, was held in the Opera-house at Fresno, to give voice to the general satisfaction at what has been achieved in the line of irrigation law-making. Enthusiastic speeches were made by President J. H. Braley, E. J. Griffith, H. S. Dixon, W. W. Phillips, J. F. Wharton, M. J. Church and other representative men. The committee on resolutions, consisting of J. W. Ferguson, C. Chisholm, J. W. Short and G. E. Freeman, presented the following:

The Board of Trade, together with the citizens of Fresno county in mass meeting assembled, do hereby resolve:

First—That we express our heartiest thanks to his Excellency, Governor Bartlett, for signing the Irrigation bills passed at the last session of the Legislature. In this he confirms our confidence in his purpose to faithfully serve the best interests of the entire State, and shows himself in fullest sympathy with that large multitude of his constituents who are struggling to secure their natural rights in the use of the waters of our rivers for purposes of irrigation.

Second—That we tender our thanks to both houses of the Legislature for the passage, by good majorities, of the bills upon irrigation set before them. In this we see the exercise of a broad and liberal statesmanship that argues well for the future of our State. Their action is an important step toward the complete settlement, on a just and equitable basis, of the vexed water question, upon the issue of which such vast results depend.

Third—That we gratefully recognize the able and faithful efforts of our Senator, Hon. G. G. Goucher, and our Assemblyman, Hon. J. P. Vincent, to secure the passage of the several bills upon irrigation. In these and other matters they have well served their constituents, properly requited the confidence reposed in them, and done much toward the settlement of our claim to the waters of the rivers upon a fair and equitable basis.

Fourth—That we view with gratification and great hope the fact that the minds of the people of this State are realizing that the interests of the entire State can be best subserved by the diversion of the waters of our rivers for irrigation, thus bringing into existence thousands of prosperous towns and thrifty communities. In this recent legislation we see the opening of a better policy in the matters of law and justice, a speedy sweeping away of antiquated barriers to progress, and the dawn of an era full of hope and promise in the agricultural prosperity of our people, that will marvelously unfold our resources and prepare the way for the development of industrious home-seekers of the State.

These resolutions being put to vote, they were (so says a local paper) "unanimously carried with great enthusiasm."

A Stanislaus and Merced Enterprise.

The freeholders on the south side of the Tuolumne river have prepared and submitted for publication, in accordance with the law, a petition to which is attached about 80 signatures, asking the Board of Supervisors to call an election for the purpose of voting on the question of organizing an irrigation district under the Wright law. The district that the petitioners propose to form will embrace about 250,000 acres in this county and Merced county, and is described as follows:

Beginning at a point on the left bank of the Tuolumne river where the range line between ranges 12 and 13 east intersects said bank; thence following down said left bank to its intersection with the right bank of the San Joaquin river; thence following up the right bank of said San Joaquin river to the point where said bank intersects the right bank of the Merced river; thence following up the right bank of said Merced river to the point where said bank intersects the right bank of Dry creek; thence up the right bank of said Dry creek to the point where the same is intersected by the range line between said ranges 12 and 13 east; thence along said range line to the point of beginning.

The promptness with which the gentlemen have acted that have had this matter in charge is most commendable and augurs well for the results. If this district is formed, and that is as nearly assured as is possible at this time, we may expect to see water on the plains by this time in 1888. It will be the finest irrigated district in the State in extent and in natural advantages. We predict for it a future that will be simply grand, and a future, too, that is assured as the facilities and natural adaptation to irrigation preclude the possibility of failure in the undertaking. This movement on the part of the landowners on the south of the Tuolumne will soon be followed by a like movement on the part of the land-owners north of that stream. In fact a like petition is now being circulated, but will not be acted upon by the Board of Supervisors at their next session, as the law requires that the petition shall be published for two weeks prior to its presentation to that body. Should this measure carry, great advantages could be gained by beginning the work simultaneously on the proposed canals, as it is confidently believed that one dam on the Tuolumne river will be sufficient for both systems.—*Mod. Herald.*

The Placer County Movement.

AUBURN, April 2.—A second very large meeting of the irrigationists of Placer county was held in the court-house here to-day. The report of the investigating committee of three appointed two weeks ago was presented, and embodied the following points: The North Fork ditch takes water from the American river, opposite Auburn, and can supply the land between Rattlesnake and the county line. The Georgetown ditch has a present capacity of 1000 inches, but to bring it into this county will require a new ditch and pipes 25 miles long. The company proposes to bring from 1 to 3000 inches across in any event. The Giant Gap ditch enterprise will bring water in the future from a point on the American river 55 miles above Auburn. The South Yuba river can supply almost any amount up to August, and was considered the only practicable source for the present year.

It was concluded that the utmost that can be done now is to secure water from that company and make arrangements with them and the Bear River ditch for its distribution through the last-named ditch and its branches. The people, however, are determined to have more water, and if the present companies do not supply it they will do it themselves. It was unanimously voted that the Supervisors should be urged to expend $2500 in advertising the county.

THE STABLE.

His Idea of a Horse.

Lodil Ivery writes to the *Calistogian* as follows:

My horse is not a stately Norman with a pedigree reaching back to a time when Napoleon was unborn. I don't want stateliness and pedigree in either man or horse, but *worth* and *wear*. He is not a Clydesdale from the lowlands of Scotland, though we admire his vast strength; time is too precious for us to wait for the brute. He is not a fleet-footed Arabian courser, "with proudly arched and glossy neck and meek but fiery eye." His shoulders are too pointed for a collar. He is not a trotter with the blue blood of the century running through his veins; a horse cannot plow and harrow and haul and trot a mile under three minutes. Besides, a trotting horse that cannot trot under three minutes will not command a better price than a mongrel that requires 5:40 for a mile.

My horse is a cross between a stout, tough Canadian mare and an English carriage horse—the best horse, for all purposes, that a California farmer can possess. He stands 16 hands high, weighs 1250 pounds, is compact and symmetrical in form, and has splendid action. The Canadian strain in him reduces the amount of daylight below his body, while the English strain gives him a graceful appearance and high action. He can do as much farm work as a horse of any other breed or cross-breed on the face of the globe. Hitched with his mate to a farm wagon heavily loaded, he will travel 20 miles while two large Normans or Clydesdales, similarly loaded, travel 15 miles. With a buggy behind him, he can take an eight-mile-an-hour gait, and maintain that rate of speed for hours. He is good for anything and everything.

He is an animal that requires no extra care, no blankets, boots nor bandages. Give him enough to eat and a good stall, and that is all that is required. He requires no special training, as the race-track and circus are never in view—just hitch him up and make him go. Of all horses he is the one that is raised, broken, and made useful at the minimum cost. Furthermore, he is as good as a bank note. You can always convert him into hard cash. He is always more salable than heavier or lighter horses, as for every man who wants a 1600-pound Norman or Clydesdale, you will find 50 who want a medium-sized horse.

Training Saddle-Horses.

EDITORS PRESS :—Will some one, through the columns of the RURAL PRESS, give instructions for gaiting saddle-horses?

It is a remarkable fact that, while there is a great deal of riding all over this State, a well-gaited saddle-animal is a rarity.

Single-footing is perhaps most prized of any of the gaits for saddle-work. Pacing and loping come next, though a good walker is not to be despised. I am told that in Kentucky raising saddle-animals and gaiting them is a regular business, and that a saddle-horse is not considered worthy the name unless he possesses all the gaits named above. I am sure some instruction from one who understands it would benefit many of your readers.

A. S. PHELPS, M. D.

Blocksburg, Humboldt Co.

THE DAIRY.

The Milk Supply of San Francisco.

EDITORS PRESS:—I have your letter of 25th inst., asking for a copy of my late letter to the Board of Health on the city milk question, and which I herewith inclose.

Hon. E. B. Pond, President Board of Health:

DEAR SIR: I desire to say a few words in relation to health matters in this city. I am surprised to notice in the city papers that the Board of Health is so lethargic in relation to the matter of the milk supply of San Francisco.

Being in that business myself, and having become familiar with the business in all its details, I can perhaps see the danger our people are subject to more readily than one not familiar with it, and to me it seems miraculous that our citizens should have escaped so far from epidemics—through the use of contaminated milk—and which might be expected from the use of water in wells sunk in the cowyards.

I know that the parties who employed Judge Swift to gather the information contained in the small pamphlet entitled "The Milk Supply of San Francisco," intended to gather exact and truthful information about the milk supply, and also that they had every confidence in his integrity.

He was exceedingly industrious in gathering his information, as his work will show. He visited every dairy personally from one to several times that he might be sure of his facts, as many dairymen did all they could to prevent his examinations.

It was unfortunate that said pamphlet was distributed before the Board of Health had an opportunity of looking into the matter themselves. That book put the milkmen on their guard, and they had ample time to clean up and send off their sickly cows before the health officers started out.

There has been no disposition on the part of the Board of Health, for several years past, that I have heard of, to investigate the milk supply of this

city. The cause of this unwillingness to act I do not know, and the slight attempt made lately looks as if they did not consider the subject of much importance, or else were not sufficiently acquainted with the ways of the milkmen to secure such evidence as they were in quest of.

Criminal deeds are not openly performed in daylight before witnesses, and it cannot be expected that milkmen generally will have their sickly cows all arranged in a row on view, even for the Board of Health.

Judge Swift usually found them, he says, away from the dairy to which they belonged, and out of sight, perhaps, and the difficulty was not so much in finding sick cows as in finding the real owner.

Supervision of the milk business will be of no avail unless a detective that is honest, industrious, and fearless, is employed; also one who understands the methods employed by milkmen, and one who will know a sick cow when seen.

I desire, for myself, to make pure and wholesome milk, and as rich in nutriment as it can be made, and I should be pleased to have a scientific superr vision of my milk business, in all its details, eithe through the Board of Health or any reputable medical body, and to whose suggestions I would be pleased to conform to the end that the people of this city might have entire confidence in my milk, and I have no doubt that others having country dairies would be pleased to do the same.

Some seem to think that this question of pure milk is raised by rivalry in the business. It has been raised no doubt by those interested in pure milk, but if by rivals, they are in a good cause, and the only persons so far that seem interested in preserving the lives of our children by the use of wholesome food. They are willing to come under a wholesome restraint of the law, and they certainly have the moral right to demand that all producers of milk shall be equally restrained from producing and manufacturing adulterated and poisonous compounds that pass for pure milk.

I hope that you will insist that this matter may be thoroughly investigated and corrected as soon as possible. Yours truly, R. G. SNEATH.

The General Question.

Some of the members of the Board of Health have confined their efforts to an investigation, apparently for the purpose of punishing the parties that have been interested in bringing this terrible iniquity to light, and have declared that no such person's name as E. J. Swift was in the city directory, and consequently the whole report was a fraud.

Since then I have seen Mr. Swift, who is not a citizen of this city. He says that he has been a district judge and has been admitted to practice in the courts of two States and three Territories, and is a professor of mineralogy as well as law, and was brought up on a farm, and has a familiar knowledge of live-stock; and being delayed in this city by some litigation in relation to some mining claims, he accepted the proposition of investigating, personally, the milk supply of this city, and put in from three to four months' time—from daylight till dark—in thoroughly gathering all the facts obtainable.

These facts are, he says, all completely tabulated, and can be used by the Board of Health; and he says, furthermore, that when he saw from the city papers that his facts as well as his existence in the flesh were denied by some of the members of the Board of Health, he came from the country on purpose and communicated with the members of the board, and offered his services, with the assurance that he would show them enough to satisfy them that he was measurably correct in his report.

His report in gross was that the total milk supply of San Francisco was 7338 cans of three gallons each daily, of which only 1300 cans came from the country. That he found in the city limits 149 dairies with 6932 cows, besides numerous very small dairies of which no ac count was taken. He found also that 4529 cows that gave 11,247 gallons of milk were fed on brewers' slops mainly. That 5604 gallons milk were furnished from dairies that used very bad water for their cows to drink and to adulterate their milk with; that 4132 gallons of milk were sold daily from 1585 poor, sickly cows; that 5040 gallons milk came daily from outrageously filthy barns and yards; that 4586 cows were watered from surface wells; that 2667 cows were housed in old, dilapidated barns and sheds where the wind would blow the dust of the filthy yards directly into the milkpails, as the cows were being milked.

These were the principal charges in his indictment against the Board of Health for their non-attention to their very plain duty, and notwithstanding the gravity of the charges, and the willingness of Judge Swift to prove them, the board has, so far as my knowledge extends, refused to go into anything like an honest and careful investigation of the matter, and has declined to allow Judge Swift to substantiate the correctness of his report.

The doubt expressed by the board as to cows ever having consumption, shows conclusively to my mind that they are not informed on that subject as well as the average butcher or milkman, for it is a well-known fact among dealers in cattle all over the world that quite a large percentage of cattle die from consumption, and it is now admitted by many respectable medical authorities that that disease can be transmitted through their meat and milk to the human family, and to other animals by association.

I was pleased to see your article in the RURAL of March 26th on this subject. It is clearly in the interest of citizens to have more pure country milk introduced, and it will be largely in the interest of dairymen in the country to send their grass and grain milk to the city to take the place of the slop milk now sold, rather than make it into butter at the average prices; but the countryman cannot do so at the prices for which slop milk is sold. It is therefore quite legitimate and proper for your valuable paper to assist the farmer in driving out of market the poisonous article sold for milk, and replacing it with a pure, sound article.

It has been announced that a radical change in the membership of the Board of Health would take place soon, and it may be that action has been deferred by them in this matter until the change has been made, in which case it is to be hoped that something may be done by the new board that will effectually drive out all adulterated and poisonous compounds sold as milk in this city. R. G. SNEATH.

Jersey Farm Dairy, San Bruno.

A Report on Butter Adulterations.

WASHINGTON, April 1. — The popular notions with respect to the extent of the practice of butter adulteration before the Oleomargarine law went into effect will not be sustained by the forthcoming report before Professor Wiley, Chemist of the Department of Agriculture, on this subject. Professor Wiley's experiments have been progressing more than a year. The materials for investigation were purchased in open market in all parts of the country. No intimation had been given in any case of the purpose for what the purchase was intended. In not more than one-third of the cases did the purchases prove to be adulterated, except when something else than butter was asked for, and the fraudulent articles were almost uniformly those secured when low-priced materials were called for. In no instance was it found that an article sold in the market was entirely fraudulent. The adulterated articles usually contained between 30 and 40% of pure butter, the remainder most commonly consisting of beef fat, lard and cottonseed oil. Professor Wiley devotes some space to a consideration of the opinion of scientific men with regard to the wholesomeness of oleomargarine and kindred compounds. He finds that 9 out of every 10 of the scientific men who have expressed themselves declare their belief that, properly made, oleomargarine is unobjectionable and wholesome. The larger and more important part of this report is devoted to an analysis of dairy products and their substitutes and the methods of determining adulterations. The chemist's opportunities for investigation were greater than have ever before been afforded, and the result is a treatise which covers every detail of this important subject. The conclusion is reached that the microscope is a much more useful instrument in this direction than European chemists have been willing to admit, and is, in fact, an invaluable adjunct to the chemical laboratory for this particular work. The chemical methods of analysis are, however, no less thoroughly treated, and a few simple means of detection for popular use are pointed out. Artificial coloring substances are discussed, and those which are harmful and those which are harmless are described.

BOGUS BUTTER CONVICTION.—ALBANY (N. Y.), March 31.—The Court of Appeals has affirmed the judgment of the general term convicting Lipman Arensberg of selling oleomargarine in violation of the statute. Judge Rapallo, in delivering the opinion, said the artificial coloring of oleomargarine to make it resemble dairy butter came within the statutory prohibition against imitation.

SWINE YARD.

Berkshires and Durocs.

EDITORS PRESS:—Among the comparatively few persons of this State who take pride in the possession of first-class improved varieties of the hog, we find Mr. T. J. Dale, of the Kaweah River country, 11 miles east of Visalia. He has a pair of thoroughbred short-nosed, dish-faced Berkshires, bred by Wm. Corbett, of San Mateo, in Nov., 1884, of distinct parents that were imported from England and duly registered in both England and America. His young boar Pedro of the same stock, one year old in the coming May, color deep black, was bred by Andrew Smith, of Redwood City, and is also from English parents, registered in both England and America. He comes down from the celebrated "Stumpy" and "Sallie" families of England.

Mr. D. has seven young gilts from the pair above first mentioned—real beauties. We sometimes hear remarks made to the effect that realities never equal pictures. Persons laboring under this impression should see Mr. Dale's thoroughbred Berkshires and be convinced of this fallacy.

Mr. D. has also a very fine lot of thoroughbred Durocs (Jersey Reds), and he is very favorably impressed with the usefulness of this stock. He thinks, looking at the subject from all standpoints, that the Duroc is equal to the best stock in the country. The flesh is very fine-grained and tender, and a very good proportion of lean well distributed throughout, making this variety of hog one of the best for table use, and is by Mr. D. considered at least fully equal to the Berkshire.

The young of the Duroc have grown more rapidly than those of the Berkshire, and from experience Mr. D. finds that rapid growth does not indicate coarse-grained flesh. He feeds his hogs, but for the benefit of many who do not always feed, he would say that the Duroc is the best range hog with which he has had to do. He thinks they support on grass better than do the Berkshires. They rustle around and are a livelier hog. McD.

Tulare Co.

HORTICULTURE.

Nut-Growing in California.

The State Horticultural Society held its last regular meeting Feb. 25th, at Irving Hall parlor, in this city, President Hilgard in the chair. Mr. Gilbert Tompkins was elected a regular member.

Secretary Wickson announced the death of Colonel Webb, who was for many years a member of the society, an earnest worker and secretary of the State Horticultural Board. On motion, a committee consisting of State Inspector Klee and Secretary Wickson was appointed to draft resolutions in respect to his memory.

Walnuts.

At the call of the president, Mr. James Shinn, of Niles, opened the discussion on the subject of nut-growing with a few remarks. He thought that the production of a few kinds of nuts would prove to be a very profitable and important branch of our horticulture. Our product of English walnuts he thought likely to become large. The area would be extended as varieties suited to the different situations become widely known. The so-called Los Angeles variety was well suited to some locations at the south; to other parts of the State it is ill-adapted. The Prœparturiens has shown suitability, but it is only one of several which are worthy of attention. It is a small nut, which is something against it, but it comes in bearing very early, which is a good point. Mr. Shinn showed samples of the Persian walnut which he is propagating. The nuts are fine and large, the tree very prolific; the kernel is white, with very thin skin, and the flesh very sweet.

Mr. Shinn thinks the chestnut will be one of our important crops. The Italian chestnut comes in bearing early, and the Japanese very early. The latter seems to him as good perhaps as the former. Chestnuts make fine avenue trees or border trees around a farm. The Italian makes an especially fine large tree. He had urged the planting of almonds wherever the tree bears well. The trees will grow in many places where they will not bear satisfactorily. It is quite probable that the question of selecting varieties which will prove steady bearers has much to do with the settlement of the almond question, but it is certainly safe to plant them where experience has shown that they bear well. Mr. Shinn said that his experience with the filbert or cob-nut had not been satisfactory. The crop was not as good as the seed from which the trees were grown. Nut-growing in general he thought favorably of, because it helps to diversify our horticulture, and because it gives us an imperishable crop, which can be sold when the market favors and can be gathered in a leisure time.

In answer to questions, Mr. Shinn said that he had not been able to make the "shag-bark" hickory-nut grow. The pecan had grown well and borne some nuts which were, however, without kernels. This he thought would be different when the trees get more age. In Texas, he believed, the trees had to be 30 to 40 feet high to bear good crops.

Professor Hilgard, in answer to a question about peanuts, said it was a mistake to cover the blooms which appear above the ground as is sometimes done. These blooms do not produce the nuts.

Almond-Growing.

Vice president A. T. Hatch, of Solano county, the largest almond-grower in California, was next called upon. He said his first experience was with the Languedoc. He bought 100 trees and they were all Languedocs but one. He found he could not count upon their bearing regularly. He soon noticed, however, that in a circle around that single tree which was of a different variety, the Languedocs bore. There may be many different varieties which will answer to fertilize the Languedoc with. King's soft-shell has this effect, but there is no reason to figure out how to fertilize the Languedoc, for there are many other much superior varieties which do not need such treatment.

In the Suisun valley the Languedoc bears once in awhile, but is not reliable. It blooms freely but has no fruit. It is not the effect of frost, because in the warmest seasons, when there has been no frost while the tree was blooming, the result has been the same. There are other varieties which sell 50 per cent better than the Languedoc, and bear twice as much per tree. One year he shipped seven carloads of almonds to Chicago. His seedlings brought 18 cents per pound; the Languedoc, from 8 to 13½ cents.

Some years ago in this society we discussed the question, What shall we graft our nut trees into? I want those that will bear, and those that will hull without a machine. So I grafted all mine into almonds again. Other fruits pay better now per acre, but in the near future our almonds will yield better returns than any others of them. We have less loss from decay, less pruning to do, and an increasing price. At ten cents a pound I believe them a profitable crop. While other fruits have been growing cheaper every year, almonds are daily higher. I prefer them to all other nuts. In the fourth year I expect a crop which will pay for all the trouble and expense at that time. Even in rainy seasons you can gather, hull and bleach them, and make a good marketable product. An expert in the Eastern markets spoke of our Californian samples as better than any imported nuts that ever reach New York. It used to be claimed that we should get almonds that bloom late so as to avoid the frost, but really the best bearers bloom early. They are the seedlings of a seedling, generated from an old bitter almond. I had grown a lot of seedlings for the purpose of grafting them with the "McCoy," a variety originating in the neighborhood. It was a small almond, hard to shell from the shuck, but a very regular bearer. My buds gave out before the seedlings were all worked over, and I allowed about 300 of them to go into fruit. I found that some of them bore hard and bitter nuts, but some were very fine soft-shell almonds. A number of these I have named and propagated. I have planted them largely myself, and they have been tried in various places where Languedocs have been a failure and with good results. These improved nuts bring better prices, too, because they are better for the buyers. At one trial one pound of imported Tarragona had 6 1-5 ounces of kernels; one pound California Languedoc, 7½ ounces; one pound of Hatch's Nonpareil, 11 ounces; and one pound of Hatch's El Supremo, 13 ounces. Besides this these varieties bore twice as much to the tree as the Languedoc.

Philopœnas not Popular.

Some one asked about nuts bearing double kernels. Mr. Hatch said: "I do not propagate any trees that bear double kernels. I have in shell varieties kinds ranging from the consistency of thin paper up to those so hard as to require the blow of a hammer to crack them. Those almonds which bloom early leaf out very early, and the buds are sheltered soon from the rigors of the weather, and in that respect they are preferable. It has not generally been known how great the duty is on almond nuts. It seems that it is as high as six cents a pound. If that were removed, Californians will be forced to shell their nuts for sale."

In regard to pruning the almond, Mr. Hatch said that when he set out yearling trees he cut them back well, but now he was largely planting dormant buds and June buds, as he has had good results with them. The second year he cut back about half the growth made, and the third year about one-quarter of the growth. After that he only pruned a little, heading back moderately and taking out all crosses of limbs, etc. Thus he gives his almonds considerably less pruning than other fruit trees.

Chestnuts, etc.

W. G. Klee, State Inspector of Fruit Pests, made some interesting remarks on his observations on nut trees. He spoke of fine, large Italian chestnut trees he had seen on the Bidwell farm in Chico, Butte county. These trees have made much greater growth than the Eastern native chestnuts. In the vicinity of Los Gatos, in Santa Clara county, there are a number of young Italian chestnut trees which yield profitable crops. Speaking of the culture of walnuts, he said: "There is no use planting walnut trees in any but the richest and deepest soils. The English walnut requires much finer soil than the native black variety. As the name walnut indicates, from the partial derivation from the German wald, meaning the forest, hence trees bearing forest-nuts, the richest and best drained soil is the habitat of the walnut tree." In response to the grafting or budding of the English walnut on the native species, Mr. Klee said that a number of plain instances of success had been reported.

The Fruit Outlook.

The last few meetings of the society have been very interesting, but the attendance has been rather lighter than usual, owing probably to the subjects not exciting the interest of members. It was therefore decided that at the April meeting (which will be held at Irving Hall parlor, 139 Post street, S. F., April 29th,) the subject for discussion will be, "Is there danger of oversupply of fruit in California?" This is a question of the most vital importance and that all the points possible should be brought forward. President Hilgard appointed Judge Blackwood, of Haywards, to present the affirmative of the question, and A. T. Hatch, of Suisun, to uphold the negative. There will be the fullest opportunity for all to take part in the discussion and to throw any light they can upon the question. The meetings of the State Horticultural Society are held on the afternoon of the last Friday of each month at the place stated above, and all interested in horticulture are invited to attend, whether members or not.

Propagating Trees From Seed.

EDITORS PRESS:—In growing trees or shrubs from the seed, very much depends on planting the seed as soon as it ripens and falls to the ground. This is Nature's process, and Nature makes no mistakes. The vitality of such seeds is very materially injured, and in some instances entirely destroyed, by allowing them to become dry and planting them out of season. Cover all such seeds lightly with leaf mold and they will be sure to germinate and grow finely.

Santa Rita. J. S. TIBBITS.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Voting on the Amendments.

Next Tuesday, April 12th, the people of California are to adopt or reject three amendments to the Constitution of the State proposed to them by the Legislature at its last session.

The first to be considered (known for election purposes as "Amendment Number One") relates to the Supreme Court. It is proposed that the Court shall consist of seven justices, chosen by popular vote for a term of 12 years, who shall elect one of their number Chief Justice for a term of two years. The Court may sit in departments or in bank, and shall always be open for the transaction of business. There are to be two departments, to each of which the Chief Justice shall assign three justices, two of whom concurring make an opinion law, unless upon petition it be ordered heard by the Court in Bank. The Supreme Court Commission, created two years since, is to be continued for four years or more, with functions equivalent to those of a department. Provision is made also for the retirement on pension, for the remainder of their term, of justices who may become disqualified mentally or physically while in office.

It is claimed that the adoption of this amendment would enable our court of last resort to clear off in time its arrears of work and keep up with its accumulating business, and that greater dispatch would be insured by allowing the justices elected by the people to decide biennially which of their number is most gifted with the administrative ability required in the presiding officer. We see no reason to oppose this Amendment Number One, and are willing to see it adopted.

"Amendment Number Two" proposes largely to advance the salaries of the Supreme Judges, the members of the Supreme Court Commission and the Superior Judges in certain counties, on the ground that the present stipends are too low to secure the services of the highest legal talent, who "will not seek judicial distinction at the expense of a lucrative private practice."

Judge Blackwood discusses this point so well, in the last issue of the Haywards *Journal*, that we can hardly do better than use some of his very words. "The reason for advancing the salaries is not new—it has been rung on the chimes of every legislative hall in this Union, ever since such halls had a being; yet judicial salaries in all the States have been low, compared with the earnings of some eminent and distinguished lawyer in his private position. Such men are rarely or never called upon to don the judicial ermine. But it does not follow from this that the judiciary of the United States is not filled by eminent and learned jurists—men of honor, men of integrity.

"This whole question was long and earnestly debated in the convention which adopted the present Constitution of California, and the salaries as therein fixed were deemed a just and reasonable remuneration for judicial services. * * * Under the present Constitution our judiciary has been and is filled by men eminent as jurists, and no doubt will continue to be so filled by eminent legal lights, although no increase of salary be voted by the people. The people of the State now suffer from excessive taxation, and when they come to understand the matter they will not vote any increase of taxation when there exists no necessity for the same."

Without having the figures at hand to verify the statement, we believe that in no State of the Union, unless it be New York, are judges paid more generously than here.

It strikes us that legal and judicial services in California are, on the whole, receiving their full measure of compensation. Thousands upon thousands of dollars are expended in appropriations for the benefit of the law-school. The people of the State are paying liberally to educate and train men for lawyers and judges, who thereafter get twice or thrice as much as other men of equal intellect and industry for their time and toil.

It would be interesting, too, in this connection to reckon up the enormous expenses already incurred in merely advertising the coming election, to say nothing of those which are to follow in actually conducting it and ascertaining the result.

Considering the decreased cost of living, since our present Constitution was adopted, it would seem in order to reduce rather than augment the justices' allowance. They will scarcely feel the pinch of poverty or throw up their commissions on an income of $500 a month.

To the adoption of *this* "Amendment Number Two," we are then decidedly opposed. So far from there being any difficulty in obtaining good, competent men to serve at present rates, we have an impression that seats upon the bench are greatly desired and sought by able members of the profession. "It is proper that an adequate compensation be paid by the people for judicial services, as for all other official labor; but when salaries are placed at figures that invite the contention of unscrupulous men for their possession, the honor, dignity and usefulness of the judiciary are necessarily jeopardized."

The farmers, so far as we have been able to learn their views, are a unit against the proposed increase. Business men—from not having had their attention fixed upon it, perhaps—appear rather indifferent about the measure; but had it not been, so to speak, sprung upon the people, had the vote upon it been put off till fall, we conceive that its chances of success would have been slight indeed.

Amendment Number Three relates to the framing of charters for their own government by cities of less than 100,000 and more than 10,000 inhabitants, through a board of 15 freeholders, and as this concerns chiefly Oakland and Los Angeles, we are willing that those most interested in the case shall have the deciding of it.

But however they may vote on the first and third propositions, we urge Patrons and farmers to see that the polls are well manned on election day, and to vote and work earnestly "Against the Amendment Number Two."

A Veteran Patron Coming.

We take the liberty of publishing below a letter from one of the earliest and ablest pioneers in the work of building up our noble Order. Bro. Thompson is also the author of a very valuable and instructive book for Grange officers and deputies, by aid of which the V. W. is being made much more uniform and correct throughout different States and this National jurisdiction. We should certainly consider the accession of such Patrons and families an excellent thing for our State. We are also happy to say that while they may not realize all the good things they may conceive are in store for them in California, we are confident they cannot be otherwise than delighted with our kindly soil, climate, grangers, and people generally.

LAWRENCE, KANSAS, March 28, 1887.

Dear Sir and Brother: Your appreciated favor of 22d ult. I found awaiting me upon my return from a visit to my former home in Minnesota the 5th inst.

My letter to W. M., Johnston, which was unexpectedly published in the *Patron*, has been the means of bringing me much valued correspondence and information about Central California, which I highly appreciate. I heartily thank you for the samples of the RURAL PRESS, so kindly furnished, and for the pamphlet publications. Especially would I return thanks that I may expect the PRESS until July 1st. It will furnish me information that will enable me to pass a more intelligent judgment on many points.

I cannot undertake to reply to each of the letters so cordially written by Patrons advocating the special merits and advantages of their several localities, but shall report to them through the *Patron*. There are about a dozen Patrons whom I shall address personally, among them Bro. E. B. Smith. From the reports furnished by several in regard to their Granges and localities, I shall surely visit them, if I ever go to California, before I decide upon a permanent home.

I was a charter member of one of the first Granges and Master of the first State Grange in the nation, organized the State Granges of Michigan, Ohio, Pennsylvania, New York and Virginia, visited others for instruction, and have lectured in 25 States.

Being now 65 years of age, I desire to select a place that will be satisfactory and pleasant, where I can settle down to quiet life and be at home. Hence I shall desire to visit several Granges I have selected, because acquainted and informed, and decide intelligently. I have property in Minnesota and Dakota which I must sell before I can go to California. I really wish I was ready to go now, or at least this year; but I cannot expect to before 1888, from appearances.

I only want a few acres for a fruit home, well established, and shall desire to keep one horse and a cow and be near a good Grange in an intelligent community and near a pleasant village or city. I have been all my life a practical farmer, raised on a farm in Northern Ohio, and for 30 years have lived in Minnesota and Dakota. Mrs. Thompson's health became such, from severe attacks of neuralgia, that it was best to try a milder climate, and she has been benefited so much by residence here for two years, and we enjoy the fruits of this section so well, that we have fully decided to go to California to remain the balance of our life, as soon as I can sell so as to be able to purchase.

I find that we Eastern people have very indistinct notions of the resources, products and value of cultivated acres in your State. It scares us to hear your prices. We are not accustomed to such values. I must buy in the vicinity of $3000, and will be content with acres sufficient to support self, wife, and daughter 20 years of age. I have two sons, both married, and the younger goes to San Diego about May 1st. I do not expect to engage in grain stock or fruit-raising for profit—only to produce my family supply. Hence a few acres will suffice. I shall visit several counties and Granges in your vicinity, and have no doubt I can find to suit me perfectly. I have been accustomed to the snows, winds and ice of Minnesota, and here it is much milder; but as I read of the temperature, flowers and fruits of California, I strongly desire to go where I can enjoy them the whole year round, and shall, it life is continued.

We have had a few weeks of mild weather, but to-day it has been snowing; the air is raw, damp and chilly, and ground cold and muddy. Excuse me for writing you at such length and using your time. Yours fraternally,

T. A. THOMPSON.

Ceres Grange on Irrigation.

The Modesto *News* informs us that at the last meeting of Ceres Grange the subject of irrigation was pretty thoroughly discussed, and as a result the following recommendation was unanimously made:

"We, the members of Ceres Grange, respectfully recommend that a committee be appointed by those in our county who have in view the establishment of an irrigation district, whose duty, as said committee, shall be to inspect those portions of Fresno county where irrigation is an assured success, for the purpose of finding out, by means of chemical and mechanical analyses of the soil and otherwise, whether our conditions in Stanislaus as regards depth to hard-pan, character of hard-pan and of soil, are similar to those of Fresno."

A committee, consisting of V. E. Bangs, M. M. Williams and P. P. Stiles, was appointed to present it to the public.

The *News* commends the suggestion as a wise one, that should be acted on, and thinks that careful analyses and comparison of soils might set at rest the fears that have been expressed by some that water might have a deleterious effect on lands in Stanislaus.

Grange Picnics.

A combination picnic of Elliott, Washington, and other Granges in that neighborhood is appointed at Clements for Friday, May 6th. The San Joaquin Pomona Grange has it in charge. All the officers of the State Grange have been invited, and most of them have engaged to be on hand. There is to be an open meeting in the evening, and a big turnout of Grangers and sympathizers is desired and hoped for.

Plans and prospects for the Grangers' picnic already announced to take place at Danville, May 7th, are full of pleasing promise. In the fine weather which may then be counted on, the beautiful region under Mt. Diablo will be altogether charming in its early summer robes. We are happy to know that Rev. Dr. Stebbins has definitely accepted the invitation to give an address on the occasion upon agriculture and the farmer's relation to the State. This alone would be a great attraction, but other able speakers will be in attendance. Patrons and farmers, and their friends from far and near, will be welcome, and are most cordially invited to attend without formal or further invitation.

Let Us Do Our Duty.

Granges which hold meetings on Saturday of this week should discuss the Constitutional Amendments to be submitted to the people on Tuesday next. Let us awaken to our full duty, rouse our neighbors to theirs, and work in earnest and efficiently "Against Amendment Number Two."

GONE EAST.—Our genial brother, Daniel Field, of Maine, who has been with us in the Lodge-room so frequently these few months past, has just started on his way home to Maine, where spring business demands his presence. He has greatly enjoyed his visit to California, and we may say that California has greatly enjoyed his visit. He will carry to New England good accounts of what the Grange is doing on the Pacific Slope, and thus help knit more closely the fraternal ties which bind East and West together. Mrs. Field remains with friends awhile longer, till the winter rigors of "Way Down East" are further abated.

BROTHER OVERHISER BUSY.—Brother W. L. Overhiser, W. M. of San Joaquin Co. Pomona Grange, W. O. of the State Grange, and General Deputy, is doing good work to the southward. On the 26th of March he organized Buena Vista Grange, near Delano, Kern county, in a region of great promise; and last week's Visalia papers speak of his holding meetings for the purpose of reviving interest and instituting new Granges at Hanford, Grangeville, and other points in Tulare county.

THE Executive Committee of the State Grange met this week in San Francisco, and we have had the pleasure of greeting Brother Johnston, the Worthy Master, who addressed the people at Franklin last Saturday on the "Constitutional Steal" in the proposed amendments, and will speak at Sacramento to-day, April 9th, upon the same subject.

THE members of the Interstate Commerce Commission have assembled in Washington and begun their sessions. The business piling in upon them is enormous, and their work is in too unformed a state, as yet, to make any definite report of it possible.

THE Grangers' Business Association will hold its annual meeting, to choose directors and transact other business, at 108 Davis St., S. F., on Wednesday, April 13th, at 10 o'clock A. M.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.

In a number of our States the time has nearly or quite come around for the celebration of "Arbor Day"—a day set apart by law and under proclamation of the Governor, devoted to the planting of trees in groves, along highways and around buildings; not only beautifying the home and the neighborhood, but aiding in the restoration of tree-growth, so necessary to maintain a proper climate and the conditions of rainfall and moisture essential to the growth of all our crops. In several States, by direct and united action of the Grange, the proper legislation has been secured for an Arbor Day. In other States Patrons still have this work to do. The day should be observed, and in due form. Organized effort in this, as in other directions, secures better results. Prepare for it; talk it over in meetings. What are the best varieties of trees to plant? When and how shall we plant them? etc. The number of Granges that regularly observe Arbor Day is increasing.

Question for discussion by Granges: *Should forest lands be partially or entirely exempt from taxation?* In view of the fact that forests influence the rainfall, and severe drouths, drying up of springs and streams surely follow their undue destruction, thereby affecting the general welfare of the country, should not those who aid in preserving the amount necessary for the general good have some consideration over those who from their private property receive the full results for their personal use? Farmers frequently cut off their woodlands because they say they are not paying and they cannot afford to pay the taxes on them. In nearly all European countries government assumes control of and protects large areas of forest; schools of forestry are maintained and all for the general good.

The question is sometimes asked, "What is the Grange doing?" To those who will not close their eyes to its work it more and more demonstrates its influence for good, in local, State, and national affairs. Here is an instance of its local work. [Extract from the minutes of Millis Grange, Mass.] "The discussion of the question, How can the Grange increase the property of the town of Millis? brought out the following points: 1. That we do all we can for the Grange. 2. That we set out trees by the roadside. 3. That we help build sidewalks in the middle of the town. 4. That we mow the bushes by the roadside adjoining our farms. 5. That we vote to keep the Danville school running. 6. That we create a public sentiment that the town may vote to grant money to keep the cemetery in repair. 7. That we do all we can to repress the sale of intoxicating liquors. 8. That we attend the church and Sabbath-school. 9. That we support the lectures and moral entertainments."

The evidence appears that we have passed the dull period in Grange history and are notably on the advance with a more determined purpose, with a clearer conception of the means to be employed, and a better knowledge of the results to be gained through co-operation. During the period of seeming inaction and loss in numbers, a time in which our enemies have derided us and sought to depreciate our merits and designs, the principles have been growing upon the affections, and the plans for work in the minds of our people, so that we now feel warranted in saying that our future may safely be relied on as one of steady growth and prominent results. The words of Edward Everett, "We are the architects of our own fortunes," which we were wont to quote to school boys and girls in the past, is being recognized as applicable to the child of larger growth, and its teaching applies to the affairs of life, as an individual or a class.—*N. Zimmerman, Lecturer, Kansas State Grange.*

Capital Grange, located at Lansing, Michigan, had a "Legislative Entertainment and Banquet" a few evenings since, at which were present the officers of the State Grange, members of the Order who are members of the Legislature, and other invited guests, including Brother and Governor C. G. Luce. It was shown that there were more Patrons in the Legislature than ever before; that they were performing their part as legislators in a manner creditable to themselves, and were proving themselves more independent of lawyers than ever before, for which this organization was entitled to the credit.

At this same meeting, Prof. W. J. Beal, of the Michigan Agricultural College, for years an officer and earnest worker in this Capital Grange, now 12 years old, said that they now had 250 members, with prospects for more during the coming year. He also said: "One of the best features of this Grange is the large proportion of young people among its members. I have been a teacher all of my active life, and on you, young ladies and gentlemen, I wish, especially at this time, to impress this idea. Do you aspire to political distinction, to occupy positions of honor and trust? Look at the success of some of those among you to-night, and believe me when I say there is no better place in which to prepare to win success than by first getting a good education, and then doing hard work in a good subordinate Grange. Do you wish to be able to wield a wholesome influence in society in the way of temperance, charity, good morals, good education? This is just the place to prepare for such work."

Two more new Granges have been organized: East Sandwich, Mass.; and Frey's Bush, N. Y.

At last Rhode Island has a Grange, and it is a good one. On Friday, March 18th, S. M., James Draper, of Mass., organized Narragansett Grange No. 1, with 46 charter members. The most substantial farmers of the county and their families are in its ranks. The Lecturer of the National Grange was present, and other work is in progress that will ere long result in several other Granges in the little State.

East Hartford Grange, Conn., has just received 30 new members at one meeting.

Word comes from Georgia that "the revival spirit is *sure*, *heard* and *felt* for many sections. Confidently expect to double our members this year. Since the passage of the Interstate Commerce bill many begin to think we are in earnest, have more power, and are not afraid to use it." So writes S. M., T. H. Kimbrough.

A few more Georgia items tell of sure progress.

Antioch Grange, Harris county, was lately reorganized with 42 members.

S. M., Kimbrough, Ex. Com. Gillis, L., Gunnels, and Forte, of the Ga. S. G. will meet commissioners from N. C. and S. C., Ala., and Tenn. at Spartans-

burg, S. C., April 6th, to inaugurate the "Interstate Grange Encampment" upon a similar plan to that of Williams' Grove, Penn.

"To look forward and not back,
To look up and not down,
To look out and not in,
And to lend a hand."

The Fruit-Growers' Convention.

The Horticultural Convention and Citrus Fair will open in Riverside on Monday, April 11th, and continue during the week. A program has been issued by Commissioner Le Long, of the Los Angeles district, which states that the subjects for discussion will be: First, insect pests and care of vines; second, preparation, marketing and disposing of fruit; third, variety and kinds of fruit trees to encourage; fourth, protection to the fruit industry. On Monday, April 11th, Ellwood Cooper, President of the State Board of Horticulture, will deliver the opening address. An address of welcome will be delivered by H. J. Rudisill, of Riverside; an address on entomology and progress in horticulture by Prof. C. V. Riley, Chief Entomologist of the United States. On the other days Milton Thomas, of Los Angeles, will speak on crystallized fruits; Mrs. H. H. Bergeron, Japanese fruits; G. Tompkins, of Alameda, on fruit packages; A. B. Chapman, of San Gabriel, on the best methods of fertilizing orange orchards; W. W. Klee, of Berkeley, on the codlin moth; M. Cooke, of Sacramento, on summer washes for scale insects; and A. T. Hatch, of Solano, on fruit unions.

To those desiring to attend the Convention, special transportation rates have been granted by the Central & Southern Pacific Railroad Co. to Colton, from all points on their lines. Attendants will need to obtain receipts of local agents for ticket purchased, which receipt, signed by the Secretary of the Board at the Convention, will entitle the holder to a return ticket at one-third the regular rate. The Pacific Coast Steamship Co. will also give reduced price by allowing those who go to the Convention by steamer to *return* at one-half fare.

Los Angeles County Pomological Society.

The Los Angeles County Pomological Society, which was organized April 4, 1885, has been served during the past year by the following officers: President, Hiram Hamilton, Orange; Vice Presidents, J. W. Sallee, Pomona, H. K. Snow, Tustin, Leslie F. Gay, Los Angeles, J. W. Willis, Downey; Treasurer, Milton Thomas, Los Angeles; Secretary, Fred L. Alles, Los Angeles; Executive Committee, W. A. Spaulding, Los Angeles, Byron O. Clark, Pasadena, A. F. Kercheval, Los Angeles; Entomologist, D. W. Coquillette, Anaheim.

The following was the program for the third annual meeting called for the 7th inst., at Monrovia:

10 A. M., morning session.—Music. Welcome, by Gen. W. A. Pile. Response, by President H. Hamilton.

Reading of minutes, etc.—Fred L. Alles.

Music. Essay, Fruit-Drying and Fruit-Dryers, by Rev. J. W. Brier. Discussion of subject in five-minute speeches. Music.

2 P. M., afternoon session.—Music. Essay, Flowers, by W. A. Pile. Discussion of same. Music. Essay, Transportation and Marketing of Table Grapes (Cold Storage), by Chas. F. Perice, of Inter-Ocean Cold Storage Co. Discussion of same. Music. Essay on Apricot and Prune-Raising and Pruning, by J. O. Mathewson. Music.

Evening session.—Music. Essay, Citrus Conditions, etc., M. Baldridge. Discussions of the same. Music.

Report of Committees, Treasurer, etc. Election of officers for the year. Place of next meeting. Adjournment.

This society has done excellent work and we are glad to know of its advancement. In many respects it will serve as a model after which others can well be fashioned.

A Protest Against Caponizing.

In the interests of humanity, a Santa Barbara correspondent, Dagmar Mariager, takes us severely to task for "catering to the barbarities of our unconscionably extravagant time" by publishing an illustrated treatise on caponizing some weeks ago. She says she was surprised and shocked at our giving place to such an article; pleads feelingly for the helpless creatures who are as sensible as we are to bodily pain, yet are daily treated as if devoid of all sensibility; argues that an agricultural paper need not abet and encourage cruelty in order to be able and successful; and, appealing to our human sympathies, urges us on high moral grounds to take a decided stand in the matter, and give our wide-spread influence toward preventing such abuses and promoting more tender treatment of the lower animals.

This is not the first express disapproval of the reprint in question that has reached us, and we doubt not that our correspondent's humane protest will meet with sympathetic response and support from others, who may not be thorough-going vegetarians, yet feel keenly for and practice kindness toward the brute creation.

Business Change.—We are informed that Dr Gustav Eisen, of Fresno, has disposed of his interest in Fancher Creek Nursery.

Agricultural Notes.

CALIFORNIA.

Butte.

Flower Festival at Chico.—*Enterprise:* The ladies of the Presbyterian church have decided to give a flower festival April 21st, 22d and 23d, at Armory Opera-hall. Every one that attended the festival last year will remember what a beautiful sight was presented. But we should be able to profit by experience, and make this flower show even more elaborate and attractive than the last.

Contra Costa.

Grain Movements.—Port Costa, April 5.—Grain is coming in rapidly from the interior, both by water and rail. Some is going aboard vessels for export, but the bulk of it is being warehoused.

Fresno.

Sheep-Shearers Swarming. — Merced *Argus*, April 2: Firebaugh's is all life and activity. Immense numbers of sheep belonging to Miller & Lux are there for the spring shearing. There are 120 shearers employed to do the work, beside 25 or 30 herders, graders and sweepers; and, of course, the usual number of gamblers congregate where money is plenty. The men will have about 140,000 sheep to shear this year for Miller & Lux. The headquarters are at Firebaugh's, and all the sheep belonging to the firm are taken there to be sheared.

Inyo.

Quail Destroying Grain.—*Independent:* Farmers complain bitterly of the damage done to wheat by quail. The flocks are so numerous and the birds so destructive to the young wheat, that it is thought some of the ground will have to be replanted with corn.

Lake.

Successful Well-Boring.—Lakeport, April 4.—Wambold & Beach, who have been boring for artesian water, obtained it on the Carleighe place, in the north end of Lakeport, Saturday, at a depth of 200 feet. They had obtained three good flowing wells in Scott valley; but people here were afraid that Lakeport, being on the other side of a ridge from that valley, was out of the artesian belt.

Deer Browsing Oranges.—Lakeport *Democrat:* Many compliments are bestowed upon T. H. Buckingham on account of his successful experiment in growing oranges in Lake county. We have been told that the greatest pest he has had to contend against in his orange orchard has been the wild deer, as they have killed many trees for him by stripping them of bark and leaves.

Los Angeles.

Hurrying off the Oranges.—Los Angeles *Express*, April 2: The Southern Pacific Company will have seven special orange trains this week—Tuesday, Wednesday, Thursday, and two on Saturday via Ogden, and Monday and Friday via El Paso. This is owing, no doubt, to its being the last week before the Interstate Commerce bill goes into effect, which will advance rates on citrus fruits to St. Louis, St. Paul, Minneapolis and Chicago and common points thereto.

Monterey.

Agricultural Society.—Salinas *Index:* At a meeting of the directors of the Monterey Agricultural Society held recently in this city, the old officers were re-elected, as follows: J. D. Carr, Pres.; J. J. Kelly, Sec.; Wm. Vanderhurst, Treas. W. L. Carpenter, Wm. Vanderhurst and W. J. Hill were appointed a committee to prepare a premium list for the next fair. Paris Kilburn and B. V. Sargent were recommended as directors in place of E. W. Steele, of San Luis Obispo, and O. H. Willoughby, of Santa Cruz county, those counties having each been made into a separate agricultural district, which leaves Monterey and San Benito to constitute District No. 7. The date of the next fair has not yet been set.

Napa.

Home in a Citrus Grove.—St. Helena *Independent:* Visiting Geo. H. Beach's garden yesterday to view the blossoming orange trees, we found that his family are really living in an orange and lemon grove, in the very heart of town. On his residence lot of 88x150 he has 28 orange trees, 4 lemons and a variety of other trees—olive, persimmon, Japanese plum, nutmeg, pear, cherry, peach, plum, apricot, apples and almonds—all loaded with blossoms. Of the 28 orange trees, four have borne fruit the past three and four years, and a half-dozen more are just coming into blossom. The little Oonshiu orange trees, set a month ago, are now making blossoms.

Sacramento.

Rye Pays.—A. A. Krull, of Florin, brought to the *Bee* office April 4th a handsome stool of rye, with well-formed heads. The stalks are nearly six feet tall. He says rye is a profitable crop in his locality. Last year the grain brought a better price per bushel than wheat, and the straw sold for $30 a ton. The straw is used to stuff horse collars. There are 80 acres or more of rye in the vicinity of Florin, and one grower has a contract to supply straw, at $30 a ton, for five years. Mr. Krull says the crop this year may reach 50 bushels to the acre.

San Bernardino.

Oranges Then and Now.—*Press and Hort.:* Ten and 15 years ago oranges in Southern California were sold by the thousand, $20 being the customary price, and lots of people figured how much an acre of bearing trees would produce at that price. As the crop became heavier it was measured by the box and the price was fixed by the box. At the present day the price is fixed by the box, but the crop is measured by the number of carloads. To-day the choice Riverside Navels are selling in Chicago for from $60 to $70 per thousand for large choice fruit, while choice Riverside Seedlings are selling there at from $25 to $30 per thousand. It costs but a trifle more to ship the orange to-day to Chicago than it did ten years ago to San Francisco. Southern California in the good old times did not get so good a price for best oranges as she does to-day; but then her best oranges to-day are better than the best oranges ten years ago. We now have better varieties, and ten years ago, what is now considered our best orange country produced no fruit for market.

San Joaquin.

Ornamental Trees and Shrubs. — The Stockton *Independent* gives the following list of trees, shrubs and bushes set in Fremont square: Three seedling oranges, 4 acacias, 5 Arizona palms, a golden arbor vitæ, 6 roses, 4 yuccas, 1 English holly, 3 myrtles, 6 cedar deodoras, 6 oleanders, 5 euonymus, 3 magnolias, 4 date palms, 18 umbrella trees, 20 American trees, 4 English laurels, 3 loquats, 3 laurestinus, 3 humilis palms, 2 excelsior palms, 2 Portugal laurels, 2 grevilia robusta, 2 century plants, 2 dracænas, 1 hawthorn, 1 variety holly, 2 corypha palms, 3 Christmas berry trees. The trees are all doing finely.

Santa Clara.

Floral Fairs.—San Jose *Herald*, April 4: At a meeting of the Horticultural Hall Association held Saturday, the question of making a display at the Santa Cruz Floral Fair was discussed, and the general expression favored making a small but choice display. A delegation of ladies was appointed to take charge of the Santa Cruz exhibit, consisting of Mrs. E. O. Smith, Mrs. N. A. Saunders and Mrs. S. T. Ingalls. Matters in connection with the Santa Clara Floral Fair, to be opened at Horticultural hall May 1st, were discussed, and a large committee of ladies was appointed to assist in securing flowers and arranging the hall.

Four Lambs at a Birth.—Gilroy, March 31.—On John Fitzgerald's ranch, a few days since, a two-year-old ewe gave birth to a quartet of healthy lambs, something more than usual in stock experience. The same gentleman has a cow which has borne twin calves four years in succession.

Shasta.

Sample County Prices.—Horses are worth from $15 to $175, according to size. Good saddle animals can be purchased for $30, but draft horses for farm work are worth $80 to $150. Stock cattle are worth from $10 to $20 a head, according to age; milch cows, from $30 to $40. Day laborers receive from $1.50 to $2 a day; carpenters and mechanics, from $2.50 to $3 per day. Flour is worth from $2 to $2.50 per hundred; meal, $3; potatoes, 1½ to 2 cents; bacon, 10 to 12½ cents.

Peaches in Dormant Bud.—Mr. Fish, of Stillwater, showed us his peach orchard, set four years ago, part to dormant buds and part to one-year-old trees. Those set with dormant buds looked as if they were two years older than the others. Mr. Fish intends to make a specialty of dormant buds, and advises folks to set out trees on no other plan. Those intending to set out trees, but having no experience in that line in this climate, will be greatly benefited by spending a day with him.

Sonoma.

Fruit and Grape Growers.—Santa Rosa *Republican*, March 31: The Sonoma County Fruit and Grape Growers' Association met Saturday morning, President G. N. Whitaker in the chair. The minutes of the previous meeting were read and approved. W. G. Klee, State Inspector of Fruit Pests, led a discussion on codlin moth, scale, red spider, borer and blight, in which inquiries or remarks were made by Col. M. L. McDonald, Dr. Frazee, Prof. Dwinelle, Hon. John Markley and G. N. Whitaker. An amendment to the Constitution providing for two or more vice-presidents instead of one was passed. Col. M. L. McDonald, N. G. Finley and Dr. C. D. Frazee were chosen to wait upon the Board of Supervisors and request the appointment of a Horticultural Commission.

Stanislaus.

Super-Irrigation.—Modesto *News*, April 1: Last Sunday night at Charles L. Crow's ranch, seven miles from Crow's Landing, they were irrigating from the West Side canal. At a late hour the stream got control of the workmen and flooded the entire ranch, the waters rushing in torrents and rising in some places to a hight of fully one foot. All night long a large force of men worked diligently, and by noon Monday the flood was checked. No material damage was done the land or buildings. A large number of ground squirrels and gophers were drowned out.

Yuba.

Bee versus Chick.—Marysville *Appeal:* A lady relates that a lot of bees came from their hive, which was standing in the chicken-yard, and stung to death about a dozen small chickens. Others were stung but did not die. The quantity of dead bees, in consequence of losing their sting, that fell around the bodies of the dead chickens would have filled a large hat.

Laura.

An Easter Tale.

[Written for the Rural Press by M. B. D.]

'Twas Easter morning, and the grand blue peaks
Gleamed in the sunlight 'gainst the Eastern sky;
A sweet bird chorus rang, the vernal creeks
Went purling onward their clear lullaby,
And mirroring in their limpid depths the grace
Of many a sweet wild rose and pansy face.

And blue-eyed Laura, with her sunny braids,
Sat by the window scanning all this scene;
The Easter bells came echoing through the glades
And o'er the mountain slopes of living green,
Recalling to the spire-crowned house of God
The dwellers of this rock-pierced foothill sod.

Sweet Laura clasped her hands, her gentle heart
Most earnestly sent up a tremulous prayer;
She longed for tenderest love, and like a dart
The breaking of the clear bells on the air
Pierced her fair bosom with a thrilling pain,
"'Tis at the cross thou'lt find this heavenly gain."

Ah! Look into her memory's secret wells,
And find the reason of this ceaseless thirst;
She had the German love of home's dear spells,
And like her old-time ancestors that erst
To love in Fatherland pure Vesta's shrine,
She longed for home and love, and could but pine.

For in a stranger's house she found a place,
They took her from the sea, an orphan child
Tossed from a shipwreck. With the airy grace
Of some half-opened blossom on the wild
Dark billows, with the ocean's restless foam
She had floated to their arms and found a home.

But they had sons and daughters, and their breasts
Could not enfold with them this little waif;
They could not answer to her soul's requests
For that benignant blessing; and though safe
In this kind sheltered nook she did remain,
She ever sighed and longed with hopeless pain.

And oft she felt a cruel, jealous pang,
Because the mother's kiss, the father's word,
Were always for their own though laughter rang.
In childish mirth, her own voice was not heard;
Her little aching heart but longed and grieved,
While all around the tenderest love received.

She donned her pretty garden-hat and flew
To the rich swale that bore a wealth of flowers,
And gathered snowy cress-blooms bright with dew,
And leaped across the creek where grew the bowers
Of manzanita decked with blushing bells,
Of gnarled, yet creamy-tufted chapparals.

Nor did she scorn the azure and the gold
Of blue-bells and wild poppies 'mong the rocks,
But gathered all her rounded arms would hold,
And twined them into wreaths, and starry shocks
Yellow and rich as grain tied by the hand
Of some young peasant girl in Switzerland.

Smothing her braids, and in her best attire,
She walked along the flower-fringed road,
To where the old church reared its lofty spire,
To lay upon the altar her sweet load.
She vaguely wondered as she shyly paused,
Who yonder gray-haired man approaching was.

And then she sighed in sorrow when he drew
Much nearer, and she noted fallen tears
That welled in his sad eyes so dimly blue;
His hair was thin and gray, and with the years
His shoulders stooped, and when he spoke, his words
Trembled like notes struck from deep, time-worn chords.

He was no stranger, she had seen him oft,
The old man living on the mountain-side,
Most humbly in his rustic cot. With soft,
With pitying tones and looks, she now replied
Unto his odd request, "Child, will you hear
The story of an old man's mournful tear?

"I had a precious daughter once, dear child.
Had she but lived she now would be like you,
A blooming girl, I trust as sweet and mild;
But she was lost—" and then he said "adieu,"
For tears again were in his voice, and he
Felt half ashamed that they should fall so free.

"I'm going to your father's house with these,"
He pointed to a basket that was heaped
With eggs as white as mammoth pearls from seas,
Where coral sprays by India's tides are steeped.
"Oh, wait!" the girl exclaimed with kindling eye
And sudden boldness, though she knew not why.

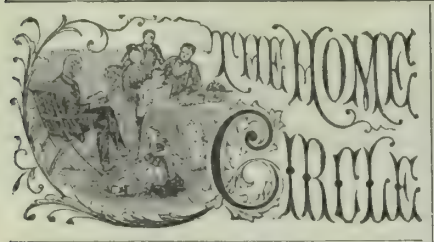
And then she told the story of her life,
And they sat down upon the mossy bank,
Where fell their tears with joy and sorrow rife,
There at their feet the jewel flowers rank
Just framed a mirror with bright living gold,
In which the twain could trace the wondrous mold

Of their two faces, one so young and mild,
And one so time-worn, wrinkled with old age,
And yet they were so like—father and child,
And this was true, so let me close the page.
Her prayer was answered. In the church her voice
Thrilled like the angels' songs when they rejoice.

The two kneeled in thanksgiving 'mong the flowers
That graced the sacred altar, and they passed
The holy portals hand in hand; the hours
Had wafted them a new life, so at last
She finds a true home in the sheltering cot,
And makes most glad her aged father's lot.

Great Land Sale.

The reader of this issue of the Rural cannot well overlook the attractive advertisement of land sale at Templeton, San Luis Obispo county, and the reading matter relating thereto which appears in another column. Certainly there could hardly be a better chance to see this country, which is now so popular and advancing so rapidly, than at the rates offered by excursion trains which will leave San Francisco at 8:30 on April 13th.



Garnered Truths.

[Written for the RURAL PRESS by MALLIE STAFFORD.]

'Tis not mere toil that makes us weary,
That burdens life;
But discord, and long years of dreary
And bitter strife,
When peace has fled,
And in its stead
Despair and sadness mock our years
With blinding tears.

'Tis not mere poverty that smothers
Each impulse high.
The bosom that can ache for others,
And heed their cry,
Sad hearts may soothe,
By words of love,
Tho' no broad lands, nor silken vest,
Their wealth attest

'Tis not mere fortune's frowns that sever
Life's sweetest links,
But wrong and censure, ending never,
The spirit sinks.
Well may we brave
Fate's stormiest wave,
If love and tenderness doth bless
Our keen distress.

Life may be made well worth the living,
If Love but rule.
There's not so much in gain as giving
The measure full.
Through good and ill,
'Twere better still
To give, and freely give, than take
For love's sweet sake.

Life's noblest truths are slowly learned,
But this we feel:
Our happiest work is what we've done
For others' weal,
Forgetting self,
And worldly pelf,
To toil for human hearts that bleed;
For those who need
The loving word and kindly deed.

This is not all, this restless yearning
For what life brings!
Our hungry spirits ever turning
To earthly things.
Eternal life, and peace, and rest,
Are for the blest,
For those who live, and those who heed
Christ's loving creed.

Minerva Rhine's Brief Reign.

[Written for the RURAL PRESS by EMELIE TRACY J. SWETT.]

Minerva Rhine was one of the vast army of the disappointed, who, having seen one ambition after another shattered to atoms, sink into a listless apathy, performing each day's duties with dogged faithfulness, and hope for a wider scope of action at some time, either in this world or the next. Minerva's husband sometimes said to himself, as he furtively watched her, "I do wish thet Minervy was a leetle more spry. Ef I knew how to make her sperrits raise, I'd do it; but there! a man like me, 'thout no knowin' ez to wimmen's ways, can't do nothin' but look on an' wait. All is, I'd like to see Minervy more happy-like."

One morning Mrs. Rhine astonished her husband by remarking, almost forcibly:

"Lawsy! if I couldn't write better an' more Christian pieces than Mis' Parsons, I'd keep out of the papers. She's jest too narrer-minded to write. I don't b'lieve she's bin out o' Dead Gulch sence it was settled, an' I've lived here an' observed for 30 year come May."

"You don't think of takin' to the perfession yourself, Minervy, do you, now?" said Jacob Rhine, quizzically eyeing his wife.

"You kin jest mind your own affairs, Jacob Rhine," hotly retorted Minerva, commencing to clear away the dishes.

Still puzzling over the sudden turn of things, Rhine went out about his chores, muttering: "Wimmen is cur'us; though, come to think on't, there is some ez hez thought o' that before me."

After that, Minerva contracted a most singular habit of secluding herself in her room for a stated portion of each day. Some of the family, in speculating upon it, said that Minerva must have experienced religion and sought retirement for purposes of meditation.

To tell the truth, the great literary tidal wave rolling over modern civilization, sweeping the broom and needle out of many a good woman's hands and replacing them with ponderous notebooks and rough manuscript paper, spent itself in this far Western settlement of Dead Gulch, firing Minerva Rhine with all the ambitious zeal which had lain dormant within her for years. Minerva was illiterate, but in the unconscious bliss of ignorance, the fact was no obstacle. Running her scrawny hands, which had done frontier work for 30 years, through her thin locks, which were silvering at the temples, and adjusting her spectacles, she sat down at her marble-topped table, furnished with its cheap ink-bottle and some blank paper, and remarked with decision:

"I hev plenty to say, which is more'n most on 'em hev. I was readin', only this mornin', thet people wanted sunshiny pieces; but lawsy! them ain't the things thet set men's hearts a-palpitatin' an' fetch tears to wimmen's eyes. I've lived an' observed a long time, 'an' the thing thet moves the heart is sorrer—an' the more sorrerful the sorrer is, the better people like it. Mis' Parsons has written for the Dead Gulch *Banner*, an' if I couldn't do better'n her I'd keep my mouth shet. But lor! makin' reflections ain't writin'; an' besides, I don't know ez reflections on your neighbor is quite Christian."

After each day's seclusion in the mysterious chamber, Minerva emerged with flushed face and ink-stained fingers, that raised a great many doubts in the bewildered Jacob's mind. He was far too wise to press his investigations, for once when he had made bold to question his wife, she had eyed him menacingly, and said in a way that checked further progress:

"Jacob Rhine, you jest wait, will you?"

One morning, as she sat in her room, elaborating a romance that had recently come under her notice, she heard her husband come in from the barn and call out in great excitement:

"Minervy! Minervy Rhine! Where in the name of blazes be you?"

Although annoyed at having her train of thought rudely broken, a mingled feeling of curiosity and apprehension caused her to rise hastily and open the door.

"Well, Jacob," she called, "here I be."

"Minervy Rhine, ef you ain't bin an' done it."

"Done what? What air you drivin' at?" asked Mrs. Rhine, adjusting her spectacles again and placing her arms akimbo.

"Look at that, now!" ejaculated her husband, flourishing the Dead Gulch *Banner* in his left hand. "Minervy, what ever put you up to write for the *Banner*, an' you with no more edoocation than you've got?"

Mrs. Rhine shrank back apprehensively. She began to realize her temerity in laying herself open to the ridicule of a widely circulated periodical. When she could master her feelings, she looked her husband squarely in the face and said:

"See here, Jacob Rhine, you an' me ain't never hed no words yet. I may not hev hed a first-class edoocation, but I hev hed idees, an' idees count for more'n learnin' nowadays."

Lowering her voice to a nervous whisper, she leaned doubtfully toward her husband, and while trying to catch a glimpse of the article, she said:

"They ain't made fun o' me, Jacob, hev they?"

"Fun? Oh, no, leastways so far ez I kin see."

As she took the paper, her hand trembled, and when she actually saw the labor of weeks before her eyes, printed so clearly, and her name signed at the end, her excitement culminated in a flood of tears. Presently Jacob looked toward her and said ruefully:

"Minervy, there's more to come."

"How?"

"Wa'al, the first I knew was this morning, Jim Hawley stopped an' leaned over the fence. He asked what hed struck you so sorter sudden like. 'Twan't religion, I know, for thet works in another way. What was it, Minervy?"

"Well," explained Mrs. Rhine, "I read some o' them pieces thet Mis' Parsons wrote, an' I thought thet if I couldn't do better'n her, the more's the pity."

"The Bible says, 'forgive your enemies,' Minervy; is thet what you did? Jim Hawley says I'll hev to pony up harndsome. Mis' Parsons is riled; Jake Cumins is riled; Sary Skiggles is riled—in fact, Minervy, the town is buzzin', an' I'll hev to square it with them ez is mad. Ef you hed only said nice things about 'em!"

"I didn't use no real names, Jacob; an' all I told was gospel truth."

"I hevn't read it all yet, Minervy, but Jim Hawley sez there is them in the county ez will make it too hot for us to stay. Ef you'd only asked me, Minervy, I could hev saved you this."

"I only paid back them ez I owed slaps to," defiantly protested the mortified Minerva.

"Thet ain't the way to get even with enemies, Minervy—let 'em alone is the sure way."

"I can't help it, Jacob, if they see themselves. If the cap fits let 'em wear it; thet's all I can say," retorted Minerva, defiantly, tossing her head and going back to her room. She was deeply mortified, but she was determined not to show it.

As to the editor of the *Banner*, Moses E lenwort, he had laughed heartily upon receiving the quaint, misspelled manuscript with its cramped, painful chirography. With the remark, "Another crank that had better be at the washtub," he wearily brushed through the opening pages of the article. Dull curiosity gave way to lively interest. The writer had ideas. Perhaps she chose the dialect form as a sort of Artemus Wardism. A touch of pathos here; a bit of quaint humor there; a dab of malice; a dry reflection; eccentric philosophy—indicated talent and experience. The writer's ability was undoubted, according to Moses Ellenwort's mind. He set the article up, and then wrote to Mrs. Rhine:

Dear Madam: We shall be glad to hear from you often. Yours sincerely, THE EDITOR.

Although Ellenwort was an easy-going country editor, he sometimes stumbled upon the truth in his criticisms. In regard to Minerva Rhine, he was right. Her style was provincial, but then the greatest writers have done their best work in localizing their genius. One thing only hindered Minerva from continuing her literary career indefinitely—localization has a limit.

There came a time when, aside from the fact that half the county were her sworn enemies, she had no more village dramas to elaborate. The vital interest that she had felt at first, waned—adverse comment killed it. Her brief reign had given her the social leverage that any intellectual superiority gives one in a small settlement; it had made her feel that life still held hopes of something better than continued disappointments; it had proved her ability to succeed in some line in life, which is a great point for a woman to make; and it had relieved her of the weight of facts that had accumulated in her mind and burdened it for years. Now, like a sensible woman, she saw that her part was played, and it would be wise to stop. Mrs. Parsons somewhat hastened matters by making the remark, which the village tattle brought at once to Minerva, that "Minerva Rhine orter take a back seat, an' let them ez was more youthful hev a chance. But lawsy! the Bible never sez a truer word than 'them ez hez, gits.' Now she's got the whole county down on her, an' she thinks she ken run Mose Ellenwort an' his paper. It would be jest like her to keep on grabbin' for the best till the day o' judgment."

But Jack Hawley told Jacob Rhine, in confidence, that "Mis' Parsons would give every dollar in the world to write like Minervy. An' Jacob, never mind if she does talk about prosecuting you an' Minervy; she dasent do it, for she is ez 'fraid ez anything of Minervy's pen."

FUN IN SCHOOL EXERCISES.—Mark Twain has written a little book soon to be published by Cassell & Co., entitled "English as She is Taught." It is made up from a note-book of a public school teacher not many miles from New York, who has preserved all the amusing errors her pupils have made during the past few years. The compilation is one that nobody with a well-regulated sense of humor can read without shouts of laughter. In the perfect seriousness of the blunders lies their absurdity. Here are some of their answers to words they were asked to define: "Auriferous, pertaining to an orifice;" "ammonia, the food of the gods;" "Equestrian, one who asks questions;" "parasite, a kind of umbrella;" "ipecac, a man who likes a good dinner." And here is this definition of an ancient word honored by a great party: "Republican, a sinner mentioned in the Bible." And here is an innocent deliverance of a zoological kind: "There are a great many donkeys in the theological gardens." Here also is a definition which really isn't very bad in its way: "Demagogue, a vessel containing beer and other liquids." Here, too, is a sample of a boy's composition on girls, which, I must say, I rather like: "Girls are very stuckup and dignified in their manner and behaveyour. They think more of dress than anything, and like to play with dowls and rags. They cry if they see a cow in a far distance, and are afraid of guns. They stay at home all the time and go to church every Sunday. They are al-ways sick. They are al-ways funny and making fun of boys' hands, and say how dirty. They can't play marbles. I pity them, poor things. They make fun of boys and then turn round and love them. I don't believe they ever killed a cat or anything. They look out every nite and say, 'Oh, ain't the moon lovely!' Thir is one thing I have not told, and that is they always now their lessons bettern boys."—*Ex.*

BEING OUT NIGHTS.—These words of Beecher, as to the training of children, have an application in places smaller than San Francisco or Los Angeles: I do not like to sow the seeds of suspicion in the minds of parents about their children, but there are thousands and thousands of parents in our great cities who think, who *know*, that *their* children "never lie," and yet their tongue is like a bended bow. They think their children never drink; but there is not a fashionable saloon within a mile of their homes that the boys are not familiar with. They think their children never do unvirtuous things; and yet they reek with unvirtue. There are many young men who, when they return to their father's house, are supposed to have been making visits to this or that person. It is a mere guise. The practice of allowing children to go out at night to find their own companions and their own places of amusement, may leave one in 20 unscathed and without danger, but I think that 19 out of 20 fall wounded or destroyed. And if there is one thing that is more imperative than another it is that your children should be at home at night; or that, if they are abroad, you shall be abroad with them. There may be things that it is best you should do for your children, though you would not do them for yourselves; but they ought not to go anywhere at night, to see sights or take pleasure, unless you can go with them, until they are grown to man's estate, and their habits are formed. And nothing is more certain than that to grant the child liberty to go outside of the parental roof and its restraints, in the darkness of night, is bad, and only bad, and that continually.

COMPROMISING.—"No, Bobby," said his mother, "you cannot go skating to-day. It's Sunday, you know."

"Well, ma," persisted Bobby, "can't I go if I'll just skate straight ahead and not try to do any fancy work?"—*Puck.*

C. L. S. C.

[Written by FANNIE H AVERY, and read at the Chautauqua Reunion held in S. F. March 29, 1887.]

Chautauqua! it would seem as if with thee,
The hope of poets and each generous soul
Might be fulfilled, and culture scattered free
Throughout the land. For 'tis thy noble goal
That all attain to intellectual life:
That all should know what can be known by them
Of the vast Universe which is so rife
With harmony and beauty past compare,
That all should have exalted aims, and care
For truth and goodness more than diadem,
Or ease, or fame. Oh, may the greatest of success attend
Thy work, Chautauqua! 'Tis inspired by God.
May thy glad tidings spread both far and broad,
And thy large circle more and more extend.

Winter in the Heart of the Rockies.

[Written for the RURAL PRESS by FANNIE ISABELLE SHERRICK.]

To those who have basked in the perpetual sunshine of California, the realization of a Colorado winter will be almost impossible. In this little town, shut in from the rest of the world by high mountains, the winter has indeed been a long one. At an altitude of nearly 8000 feet the snow comes early and stays late, and ever since last October the ground has been completely hid.

Just now, under the genial influences o March sun the white mantle is rapidly disappearing from the mountains with a southern slope, but those facing the north still wear their kingly garment of ermine.

I think nothing could be more sublimely beautiful than these pure white mysteries reaching to the sapphire sphere above, with the background of the ranges higher, whiter, more sublime if possible.

Often I have stood beside the Pacific, awe-struck, wondering at the god-like majesty of that waste of waters; so here I have looked upon this tideless sea of snow, filled and thrilled with the vast wonder of it.

I think one must spend a winter among the mountains to understand the supreme grandeur of nature. In summer her beauty is so softened by all that is delicate and tender; in winter she is stern, inaccessible, awful. Yet even then her awfulness is clothed in a beauty which is transcendent; the glittering icicles, the tall, dark pines clad in their white plumes, the dusky peaks creeping out here and there amid the snow, the soft shadows falling on the icy slopes—all these temper the austerity of her wide, white desolation.

Life in this new mining camp is dull during the winter, but it is not without its attractions, both socially and otherwise. The place is cosmopolitan, but the rougher element does not prevail. One meets with refined people everywhere, and the circle of society is presided over by cultured ladies who would be queens anywhere.

Until within the past year there were few houses in Aspen worthy of the name, but in this year many elegant homes have been built, and every week adds to the list of lovely little cottages which are taking the place of the old log cabins. New business blocks are being built, and by the time the railroads are completed the town will present an attractive and imposing appearance.

And one must not judge the interior of any home here by its exterior. Often the roughest-looking log house will have an interior which is a revelation, so beautifully will it be furnished and so skillfully arranged, with a taste which one may well call art. Women here make the best of their opportunities and their resources, and nowhere is the grace and ingenuity of woman's mind more apparent.

To one who has never passed a winter in a mountain town it would require a lively imagination to picture either its appearance or its life. From October until March the streets were knee-deep with snow and every vehicle was on runners, even the baby perambulator. Ladies waded around either in arctics or rubber boots. Yet in spite of these drawbacks, every one seemed to enjoy life. Sleigh-riding and coasting were the principal amusements—the latter being especially fine down the long, gradually sloping hills.

Nothing could be more perfect than the moonlight nights here in winter, the silver light radiating from every white peak and mountain-side, and falling in a flood of glory on the quiet valley. No wonder that coasting was enjoyed, and that young hearts beat faster as the sleds almost leaped down the icy slopes. The new fashion of tobogganning has not yet reached here, and surely this exhilarating old-fashioned amusement of coasting is a pure enough pleasure for all.

Besides these amusements there were other social enjoyments of a different nature, but equally attractive. Public entertainments were quite frequent, and in private circles there were many gatherings most pleasant in character.

The great Chautauqua movement is felt even here, and many of the most refined and cultured ladies of the town formed themselves into a circle for the improvement of their intellectual powers. Their studies have been productive of much pleasure as well as good, and, notwithstanding the dearth of extensive libraries and the access to needed books, their work has not

fallen far short of the highest mark. Some of the loveliest ladies I have ever met belong to this circle, and they are as loyal wives and mothers as they are conscientious students.

This latter clause is saying much, for, in this isolated mining town, "help," that much-discussed and often overrated essential of the American household, is almost impossible to obtain, and the majority of the ladies do all their own housework, occasionally, by begging or entreaties, securing the services of a laundress or a charwoman.

Girls are scarce and will not work for less than $30 a month. Even at this price they consider that they are conferring a great favor, and some of them even demand and receive $40 a month.

The impertinence and exorbitance of the washerwoman in this place is proverbial. If it were not so annoying I might almost say ludicrous. She demands $2 a day, and three of the best meals one can get for her, disdaining to eat in her employers' house the common fare that she probably digests at home. She comes late and goes early, and requires almost as much waiting on as the Queen of England. When she irons, the lady of the house, if she desires peace, will bring in the wood and keep the fire going. All that this invader of your household does is seemingly done under protest, and usually her day's work leaves you about as tired and certainly more dissatisfied than if the wash had been done by your own hands.

I cannot understand why women who are compelled by stern necessity to labor should be so blind to their own interests. But of course at present they have the upper hand, and so long as they do, will assuredly make the best of the situation.

Most of the ladies, therefore, do their own work, but they do it in such a noble way that it seems but an added grace to their accomplishments. And so I think they deserve the highest praise for studies and employments tending to mental culture under such manifold disadvantages, and I do not think there is any neglect of duty toward either home, husband or children. This indeed proves what women can do, and delicate, high-bred women, too, who have been reared in homes of luxury and accustomed to all the refinements and advantages of life in affluent Eastern homes. It is a new era for women and shows the independent aspiring and noble reaches of womanhood, and I feel sure that there are hights and depths in the nature of the true woman yet to be sounded, qualities which will come more and more to the front as she realizes her unbounded freedom.

When the woman of society, mentally and physically endowed with all the graces of the ideal lady, can quietly put her white hands nto the dish-water not feeling degraded as she has hitherto by the menial labor, but rather feeling elevated by the performance of duty, then indeed has she reached her ideal womanhood. Not that I am an advocate in the least of a woman's spending any time in mere drudgery when it is not needed, for there are so many other ways in which her hands and heart may be employed; but I do say that the acceptance of the situation proves the true woman.

I do not know where in all my travels I have ever met nobler, more perfect and unselfish women than in this mining camp, in the very heart of the Rockies. And I think if any woman deserves to be a bonanza queen, it is she who follows her husband unflinchingly, away from all that she holds dear, from all the comforts and advantages of her Eastern life into these mountain wilds, ready to endure all the trials and privations that may come to her.

But these pioneer women are reaping their reward, not only in their beautiful homes, but in all the comforts and advantages which increased wealth must bring.

I wish I might show you the charming little lake here and the many lovely residences springing up around it. Two of them might almost indeed be called palaces fit to crown Nob hill. These belong to two of the bonanza kings, those who have made their money from the vast treasure vault of Aspen mountain. There is no article of luxury or art wanting in these truly magnificent homes, and they would be an ornament to any city.

Most of the mines are located on Aspen mountain, rising like a solid white wall in winter, south of the town. It is not alone interesting to the prospector or mine-owner. To the poet it is a grand mountain, fraught with the deepest meaning. There, in those mines, are centered the hopes of so many—some fated to reach the highest realization, others doomed to bitter disappointment. A struggling humanity sees in that white mountain the star of fortune. There lie millions for the favored, and a despairing emptiness for the unfortunate. In its dark heart men are toiling daily, hour after hour, for the hidden wealth—steam plies its vast motive power, and electricity lends its wings of light to assist in the search—and so the great mountain yields more and more of its shining splendor to the demands of men.

Truly is this mountain one of the divinely written pages of God.

Aspen, Colo.

A Considerate Mother.—"My dear," said a frightened husband in the middle of the night, shaking his wife, "where did you put that bottle of strychnine?" "On the shelf next to the peppermint." "O Lord!" he groaned, "I've swallowed it." "Well, for goodness' sake," whispered his wife, "keep quiet, or you'll wake he baby."—*Ex.*

Young Folks' Column.

Dollie.

She sports a witching gown
With a ruffle up and down
On the skirt.
She is gentle, she is shy,
But there's mischief in her eye;
She's a flirt.

She displays a tiny glove
And a dainty little love
Of a shoe;
And she wears her hat atilt
Over bangs that never wilt
In the dew.

'Tis rumored chocolate creams
Are the fabric of her dreams—
But enough!
I know beyond a doubt
That she carries them about
In her muff.

With her dimples and her curls
She exasperates the girls
Past belief;
They hint that she's a cat,
And delightful things like that,
In their grief.

It is shocking, I declare!
But what does Dollie care
When the beaux
Come flocking to her feet,
Like the bees around a sweet
Little rose?

Our Three Pets.

We had many pets at Oak Grove farm, and some of them had pleasing peculiarities. Pet number one was Nig—not an old black cat that is usually given this name, but Nig, the black rabbit. He had a mate once, a cunning white one, but one day a neighbor's old Tommy reached his paw under a pile of old lumber where the two pets had secreted themselves, and pulled Snowball out, and put an end to her brief life. The little Nig was left alone, and grew so wild that the children could not pet him any longer. In winter he made his headquarters in the mow of the old barn, and in summer he had a burrow under the barn floor.

Nig never failed to be on hand when the hens were being fed with corn, and always got off with a full share. If anything should frighten him, he would "snap" his hind legs on the ground, and in a moment was out of sight under the barn. When he wanted water he would seek out a pail of water left on the floor for his use.

Little Nig dwelt in lonely bachelorhood on our farm, and grew fatter and fatter for a number of years, and was a real pet of the children, although he could not be handled.

But poor little Nig's life was put to an end. One day our neighbor's old Lion conspired with our Spot, and after much barking, growling and digging, they ferreted him out of his burrow and killed him, much to the regret of all the children.

Ponny was the name of pet number two. It came to Oak Grove farm one day while the hens were being fed at the door. It was a lovely brown pigeon which came to us for a home. After helping itself to corn with the hens on its arrival, it selected a roost over the old-fashioned chimney in the porch. Here it kept away from the cats. It was quite tame at first, and would let us fondle it. But it gradually grew wilder, in spite of our good treatment, and took up its abode in the woodshed.

Sometimes Ponny would dart out into the field with the hens—we had no other pigeons—and search for grain on the newly sowed land.

Hawks were numerous, and it was not unfrequent that Ponny had narrow escapes from being caught away from its roost by these ugly birds. But Ponny was rapid in flight, and when attacked by a hawk it would rise straight up into the air, make a peculiar snap of its wings, and then dart in a zig-zag manner from its pursuer until it reached its home in the shed, where its cooing soon indicated that it had succeeded in getting safely away from its antagonist.

Many years was Ponny a pet on our farm, but as it waxed old in years it became infirm, and one day Mr. Tommy came creeping up through the shrubbery, and poor pet number two was made his prey!

Pet number three was a most peculiar little creature. It was a handsome little flying squirrel, which the boys found in a nest in the top of a tall pine when "Pine Knoll" was being cleared off. The boys brought it home in one of their caps, and put it in a large wire rat-trap, as they had no cage.

We named him "Billy, the spinner." A queer name, yet it was appropriate, as you will see.

Billy, the spinner, like all flying squirrels, slept by day, buried deep in his nest of cotton-batting, and by night would come out for exercise.

Its cage, or rather trap, was placed on an old, unoccupied table in an unoccupied room. So we used to take a lamp and go in and see it maneuver every evening. It could not make an ascent by use of its four wings, but would climb up by the wood-work, and then fly down upon different objects. Sometimes it would alight on our shoulders. We gave it plenty of corn, acorns, beechnuts, etc., and it would pile them up in corners of the windows, where it would eat them at leisure.

One night, after all the family had retired, the old spinning-wheel, which had been left in the squirrel's room, was heard turning around as if grandmother was actively engaged in spinning some stocking-yarn. Those who heard it were a little startled at this occurrence, and immediately lighted the lamp to investigate the matter.

On opening the door, lo and behold! there was our pet number three—Billy, the spinner, indeed—exercising himself on the wheel, making it revolve with lightning rapidity by keeping itself on the rim outside of the spokes. Whenever it wanted to stop the wheel it would jump up on the hub and it would soon stop.

So you can see why we called the squirrel "Billy, the spinner." Well, Billy kept up its antics on the spinning-wheel every night for a long time, much to the pleasure of the children.

We kept Billy for about a year, but at last concluded to set it free again, and so we carried it out into the grove near the house and gave it its liberty.

It was nearly a year after this, and we had forgotten almost about Billy, when one evening as mother sat by the window sewing, what should suddenly make its appearance through a broken pane of glass in the window but "Billy, the spinner!" It came into the room, ran about the table, played around the windows, and then quickly made its exit through the aperture by which it came in, and it has not been seen since.
—*Portland (Me.) Transcript.*

Good Health.

Influence of Earthquakes on the Human System.—A very interesting communication to the *Medical News* has been made by Dr. F. Peyre Porcher, of Charleston, on the influence of the recent earthquake shocks in that city upon the health of the inhabitants. In addition to the natural alarm and fright which were quite universal, some persons were attacked with nausea and vomiting, which recurred or persisted in several cases for days. Two gentlemen on the islands, 80 miles from Charleston, had their eyes filled with tears not to be repressed, but not caused by alarm or fears for their personal safety, for the danger there was not imminent. Many persons experienced decidedly electrical disturbances, which were repeated upon the successive recurrence of the shocks. These were generally tingling, pricking sensations, like "needles and pins," affecting the lower extremities. One gentleman was completely relieved of his rheumatism; another, who for months was nervous, depressed and entirely unable to attend to business, regained his former activity and energy. Several cases of mental disturbance, owing to anxiety and prolonged loss of rest, some of them persistent, occurred among Dr. Porcher's patients.

Digestibility of Breadstuffs.—Dr. Walzen Muller, the German physiologist, remarks upon the common idea that an admixture of bran with flour renders the latter much easier of digestion, and asserts that the smallest comminution of the grain, as well as the amount of husky portion retained in the well-known Graham flour, produces a slight irritation of the digestive organs, which results in the separation of the pepsin from the husk of the grain, admitting of its mixture with the gastric fluids, thus greatly facilitating the process of assimilation; this mechanical irritation, particularly in the case of the aged and weak, being otherwise producible only by the use of alcoholic and similar stimulants. Dr. Muller is of the opinion that bread should not be made without salting, for the reason that the starch of the flour contains a large amount of salt of potash, which neutralizes much salt in the system. Again, dry bread which has been baked some little time is most healthful, as the chewing process must of necessity be thorough and the bread consequently fully salivated previous to its entrance into the stomach. He also particularly urges the desirability of mixing the dough of bread with milk.

Substances in the Eye.—Everybody has experienced the pain and annoyance of "something getting into the eye." What should be done when this happens? In the majority of cases, if the sufferer has the patience to close the eye gently, and keep it immovably closed for from five minutes to a quarter of an hour, the offending particle will be safely and painlessly washed away by the tears which the eye will naturally shed.

Cure for Biliousness.—For biliousness the editor of the Boston *Medical and Surgical Journal* says a plain diet of bread, milk, oatmeal, vegetables and fruit, with lean meat and fresh fish, is best. Exercise in the open air. The victim of an acute attack will be righted by (1) abstinence; (2) porridge and milk; (3) toast, a little meat and fish and ripe fruit, thus coming to solid food gradually.

Glycerine for the Ear.—Glycerine has been highly successful in diseases of the ear, from its possessing the peculiar property of attracting the atmospheric moisture, and consequently never drying or hardening.

Domestic Economy.

Tamales.

Most old residents of the Pacific Coast have prospected and experienced the "tamale," but there are many to whom the word "tamale" conveys no meaning—persons recently from the Atlantic side of the continent, generally.

The tamale is a Mexican invention. It shows in its construction that it was of Indian origin—the device of a people among whom the art of cookery was in its infancy. The eatable part of a tamale is composed of coarsely hashed chicken and a sort of dressing made of cornmeal, raisins, pepper and olives. A small quantity of this mixture—enough to make a roll about the size of an ordinary ear of Indian corn—is then covered with cornmeal batter and rolled up in clean cornshucks. The shucks are firmly tied at each end, and the tamale then looks like a big ear of corn in the husk. A quantity of tamales so constructed are then put into a kettle and boiled. When done, it will be found that on opening out the cornhusks the tamale is enveloped in a cornmeal crust and looks like a small pudding boiled in a bag. The Spaniards probably improved upon the original Indian tamale by adding to it the raisins and olives, but the pepper of the olden time is still retained, and to the person experiencing the tamale for the first time is its most striking feature.

The Mexicans often leave out the raisins and olives in the composition of their tamales, but never the pepper. Without the pepper the thing would not be a tamale. The quantity of pepper used is not great, indeed is small in comparison with what is put into many Mexican dishes. Most Americans like the tamale from the start. When properly made it is a most appetizing as well as most satisfying dish for a midnight lunch. The tamales, all hot and steaming, are placed in baskets, covered up with cloths and napkins, to retain the heat, and peddled about the streets like hot corn.

The peddler, generally a Mexican, carries with him a few plates and knives and forks. His customer seats himself wherever he can find a place to sit down; on a chair in a saloon, or on a box or the edge of the sidewalk out of doors; a napkin is spread on his knees, the plate and knife and fork placed thereon, and the table is set. The Mexican then cuts one end of the cornshuck envelope and taking hold of the other shakes the tamale out upon the customer's plate. He then patiently stands by until the tamale is devoured, when he "clears up the table," packs his dishes into his basket, hangs the basket upon his arm, and strides away with a cry of "Ta-ma-a-l-e!" that rings for blocks through the town.—*Dan de Quille, in Territorial Enterprise.*

Tested Recipes.

Editors Press:—I will send you a few more recipes:

Rice Pudding.—One cup sugar, 8 cups milk, 1 cup rice. Bake until the rice is soft; when cold, flavor with vanilla.

Soft Ginger Cake.—One cup sugar, 1 cup of molasses, half-cup of lard or butter, 1 egg, 1 cup hot water, 1 teaspoonful of soda.

Caramel Cake.—Three cups sugar, 1½ cups butter, 1 cup milk, 4½ cups flour, 5 eggs, small teaspoonful soda.

Gubserville. Mrs. W. C. Bucknall.

Meringue.—Take the whites of as many eggs as you like—four will be enough to cover a large dish. Allow one-half tablespoonful of sugar (pulverized is best) to each egg (if you use much sugar the meringue will be less light), and after beating them stiff add the sugar. Beat only just enough to mix it in. Spread the meringue over a pudding or whatever you like, and set on the top shelf of the oven, which should be very hot. Watch it closely, for it will brown in a moment, and if not removed at once will burn. It should be only a yellow-brown, not a dark-brown. It is best served as soon as perfectly cold.

Fried Sweetbreads.—Sweetbreads should be laid in warm water with a pinch of salt in it, for half an hour, to make them white. Put them into cold water and let them remain over the fire until they have boiled ten minutes. Cut them into slices, brush them with an egg and sprinkle over with bread crumbs. Fry them in butter. Each sweetbread will require an ounce of butter. Serve dry, or with a rich gravy, as for a fowl.

Cup Cake.—Two eggs, two cupfuls sugar, one-half cupful butter, beat smooth, add two scant cupfuls rich milk and five cupfuls of flour with four teaspoonfuls baking powder, flavor with lemon and pour half of it into a square loaf tin; have three tablespoonfuls of melted chocolate ready and stir it in streaks through the remaining batter; pour into a corresponding form and bake slowly 30 minutes for marble cake.

Quince Cider.—A very pleasant beverage can be produced as follows: Take a quantity of ripe quinces, cut into quarters, and with the pips, etc., removed. Boil these in a copper with double their weight of water; when boiled to perfect softness, pour the must into a vat.

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Our latest forms go to press Wednesday evening.

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SAN FRANCISCO:

Saturday, April 9, 1887.

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Sheep Wash—Catton, Bell & Co.
Cattle—H. W. Cowell, Stockton.
Liniment—H. H. Moore & Son, Stockton.
Poultry—O. J. Albee, Lawrence.

See Advertising Columns.

The Week.

The last note of the week is best of all. Just as we go to press on Wednesday afternoon the rain is falling, and the signs of the last few days in clouds and lunar halos are redeemed. We trust the rain will be general and generous, for the drier lands have been showing need of refreshing and everywhere a drenching will do much good. During the last few days crop notes and comfortable outlooks of all kinds have been hinged upon ample spring rains, and now one may expect, if the clouds hold out well, that all the good things prophesied will be realized.

The most sensational event of the week was the burning of Del Monte hotel at Monterey, which cast out about 300 people upon the grounds at midnight. Fortunately none were harmed, though much property was lost and the building totally destroyed. We are told that a new and larger Del Monte will be ready by September 1st.

There is still much doubt about new freight rates and their effect upon produce. There seems to be a general belief that the Interstate Commission may see a way to apply the law so as not to hurt the staple products of California, which must seek a distant market.

American Farmers and their Apparent Destiny.

Much is being said in private circles and through the newspapers of the country in regard to the manner in which the public lands are being "gobbled up" by large capitalists, both native and foreign. Just now the cry is against allowing "foreigners" to come in and buy up railroad lands and Government lands in large tracts for cattle-raising, and with the further evident purpose of holding them for future use for farming purposes as the country in their vicinity becomes settled up by newcomers and others seeking homes in the "far West." The idea is that these vast tracts of land will in the near future be divided up into small holdings—not for sale, but to be let out to tenant farmers after the manner of such farming in Ireland, and out of which practice the great evil has grown which is now shaking old England to her very center. That such things are possible in this country has been fully proven by the old Patroon troubles which so seriously vexed Central New York a few years ago, and which at one time threatened to involve the State authorities in a bloody conflict with a large body of tenant formers. If a single large land-holder can produce so much disturbance among a people of comparatively quiet habits, what might not the large number that are now coming to the front do in the presence of a people far more excitable and uncontrollable than were the "barnburners" of New York during the few years immediately following the census year of 1840?

But there is another and still more serious trouble in regard to our farming interests which is beginning to force itself upon the minds of serious and reflecting people. We refer to what appears to be a gradual but comparatively rapid diminution in the number of our farm landholders in the old populated States, both on the Atlantic and in the Mississippi and Ohio valleys. We have been accustomed to speak of the farmers as constituting the "great balance-wheel" of our industrial population and of our political machinery as well—that they exert an important moral influence throughout the country. And, indeed, such have been the facts, and, in the interest of the national welfare, such they should continue to be. It is generally supposed that we have an enormous number of land-owning farmers, and the census figures are sometimes quoted as proving such to be the case. For instance, the census report of 1880 gives the following figures:

Number engaged in agriculture, including everything	7,670,483
Number of farms and plantations	4,008,907
The remainder gives farm laborers	3,661,586

The figures, as there placed, give us a very encouraging view of the situation. But figures may sometimes be correctly given, yet so placed as to convey very erroneous impressions. An Ohio correspondent of the *National View*, a Washington publication, has been analyzing these and other census figures with the following result:

After quoting the above figures, the correspondent says:

By the same Census Report of 1880, I find that there were at that time, of tenant farmers, 1,024,601.

The number of farms and plantations, the reader will notice, amounted to	4,008,907
Subtract the tenants	1,024,601
Leaving nominal farmers	2,984,306

But this does not show the actual facts, for the mortgage tenant I have not included, and no fair estimate can be made with him left out, for *usury* is driving him into the ranks of the tenants.

The owner and worker of a farm and the tenant farmer are two very different and distinct individuals. One is, in fact, a capitalist, and the other is a laborer in every sense of the word, usually at the bottom rung of the ladder. Hon. B. F. Shively, of Indiana, estimated recently that 20 per cent decrease of owning farmers may now safely be added to the tenant class, which I consider too low, from what I know of mortgaged farms in this State—Ohio.

This estimate of Mr. Shively's would reduce the number of actual owners and workers of farms to 2,387,445. Let me illustrate the grip the mortgages had on the farmers of Ohio in 1884 and 1885; the year 1886 is not at hand. For 1884, 33,000, to secure $50,000,000; for 1885, 26,821, to secure $30,905,262; for 1886, it is thought to be larger. In addition to this, the cities, villages and towns had nearly the same for these years. For 1884, 31,382, to secure $35,204,782; for 1885, 24,452, to secure $20,904,439. Without absolute and exact figures at hand for this date, it has been estimated that not over 150,000 farms are farmed by the owners in this State. In 1860 official reports show 277,000. Thus it will be seen that the "American farmer," as we have known and boasted of, is doomed.

There is no country I know of with one-half of our population, and claiming modern civilization, but can discount this country in the number of owner and working farmers. France has about three to one of our number, according to a recent number of the *Industrial Review*, published at Paris, France. The "best banking system the world ever saw," borrowed from England during the war, is confiscating the farmer's land much faster than most people imagine. In this State—Ohio—the official records show that only a fraction of over half of the mortgages recorded are canceled by payment; the balance is sold by the sheriff.

There is so much talk about our many millions of farmers in the United States, and the impression given out that this class is in a thriving and healthy condition, that it is important to tell the truth, disagreeable as it may be.

At another time I will more fully go over this subject and give facts and figures from official sources. Only recently a committee of the Connecticut Legislature developed the fact that six insurance companies of Hartford held $50,000,000 worth of mortgages on Western farms. If only six companies held this vast amount of cut-throat instruments on farms, what must be the total amount held by the numerous Shylock institutions in the whole country?

California Best of All.

We had the pleasure of a few moments' talk the other day with Mr. C. J. Cressy, the well-known California agriculturist, who has just returned from a visit of some weeks to some parts of New England and the South. It took only a moment to ascertain that Mr. Cressy returns with renewed love for California and renewed pride and confidence in the country where he has bestowed so many years of sterling effort, and has achieved such signal success. Such being his upmost thought—one of loyalty to California—we thought we might serve our readers well by drawing from Mr. Cressy some of the reasons for the faith he holds in this State.

We asked him of agriculture in New England. He left Boston on March 22d, and on that day there fell in New England a foot of snow in addition to five feet of earlier snow that still remained in the rural districts of Maine and New Hampshire. It has been one of the hardest winters for 30 years. For the farmer of New England, from an agricultural standpoint and as a business proposition, the land has no value. The labor and fertilizers used in producing the crops at a fair valuation cost more than the products will sell for. They manage to make a living because they put in all their time, and thus get their board for their time. Their flour, their meat, their grain for their animals, all come from the West. They have to buy almost everything they have to use. The country is thickly settled, and the cities grow larger and more wealthy from manufacturing. We can learn from them the advantage it would be to us to establish more manufactures here where the raw material is produced. We ship them raw material and they ship the manufactured products back. Eastern cities are full of money; people have more than they know what to do with. This is the result of their trade and manufactures, not from their agriculture.

Turning to the South, Mr. Cressy reports the course of affairs, at least in the parts he visited, as very slow and unsatisfactory. In other parts there has come in a certain amount of capital and enterprise in manufacturing which promise well, perhaps, but in the great cotton region of Georgia, for example, there is the same struggle to get a livelihood out of cotton of which it takes three or four acres to produce a bale—or about 500 pounds to four acres, selling at 7 to 8c. per pound, a price far too low to pay a fair return for labor—not to speak of $3 to $4 per acre which has to be paid for commercial fertilizers. The consequence is the cotton-growers are poor and in debt, and the land has very little value. Cotton lands can be bought for $3 or $4 per acre. Their implements are 100 years behind the times. Improved machinery such as we use in California, they know nothing of. They could not use it there, because the fields are small and the country full of trees and stumps. They simply *deaden* their lands, not clear them. The stumps being pitch, never rot out, consequently they are deprived of the use of machinery as we have it in this country.

Another reason for the poverty of the country is that they are obliged to bring in everything they need instead of producing and manufacturing it. Mr. Cressy said he was curious to get information on that point, and was told by the purser of the steamer that that one line carries 150 tons of bacon a week from Boston to Savannah. The hogs come to Boston from the West. Such business is what builds Boston up. They have trade which does not properly belong to them, because bacon could be taken to Georgia from nearer points, but Boston energy and persistency holds on to the trade which enriches the city. Mr. Cressy says that his observation sustains the common report that Florida is being left out in the cold and that the tide of travel and immigration has turned strongly to California. It is being clearly seen now at the East that California soils are better, the range of production much greater and the expensive employment of fertilizers avoided. Our climate, too, is better, and, while all the semi-tropical fruits can be grown here, we have a climate in which one can live in comfort and health all the year round.

In Mr. Cressy's judgment, there is no comparison between California and any place he visited, so far as opportunity for enterprise and investment for money-making is concerned. He saw no place that compares with California in agricultural products. At the East and South they farm their little pieces of ground by hand labor; we do it on a scale so large we can use the best machinery and there can really be no competition. They feed their cattle and horses for six months in the year, and keep them in barns which have to be nearly as comfortable as their houses. Ours live outdoors, and when we want our beef crop we go and get it.

The field for enterprise and investment in California, as compared with other parts, can be learned from the very fact that so many people are coming from the East to invest here. They are, for the most part, shrewd business men, who have made their money in professions, or in trade and manufactures. Comparatively few middle-aged farmers come here from the Atlantic Coast, because it is impossible to sell Eastern farms to any advantage. Those who own them make their living, as shown above, by hard and constant work, but they cannot sell out for enough to move their families here. Young, unmarried men from the agricultural districts at the East are coming here. Mr. Cressy says he always brings some of this class when he returns from the East, and almost without exception they have done well, as they have had the right kind of material in them. The contrast in wages here and at the East Mr. Cressy mentioned. He said that in the South a young man is worth from 40c. to 50c. per day; a young man here gets from $1.50 to $2 per day. Now that the grain lands are being planted to vines and fruit, they give work all the year, and the increased attention to stock-raising has the same result. When wheat is the only thing raised, work does not last all the year, but things are changing.

Mr. Cressy was clearly of the opinion that the upper parts of the State should be better advertised. He came through with a large excursion party, and, beside himself, only one young lady came to San Francisco—all the rest went South. People do not know anything about important northern regions, only Santa Barbara, San Diego and Los Angeles.

Mr. Cressy returns with all his old spirit and vigor, and feels that he has been losing time while visiting. No doubt he will make up for the indulgence by a most active summer's advancement of his many and wide interests in this State.

THE first strawberries of the season were received in S. F. by Geo. R. Starr & Co., March 31st, from English & O'Brien, Bouldin island. The consignment sold at the rate of $3 per pound.

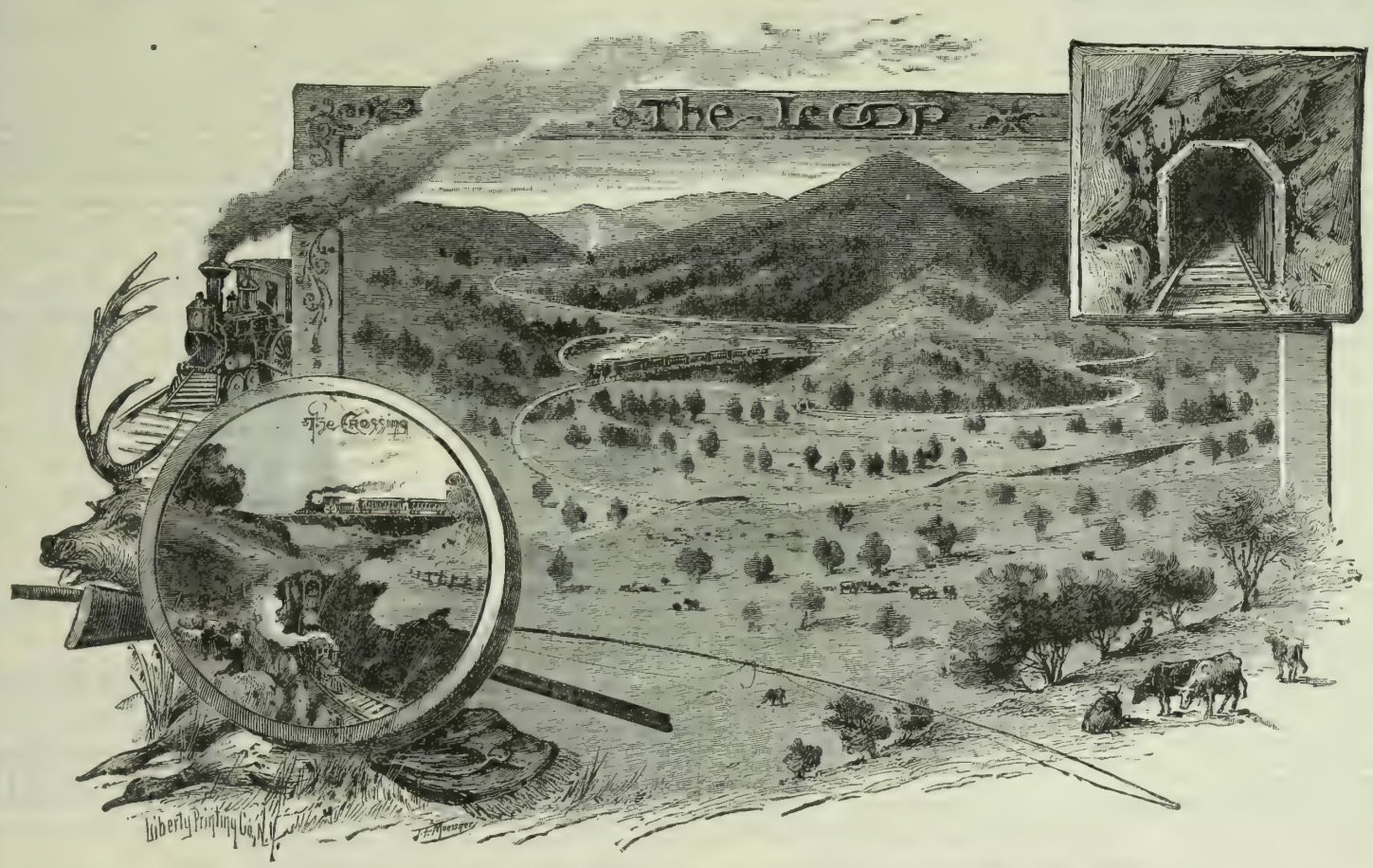
ONE of the oddities in the freight business is the recent shipment of a carload of lemons from New York for this city, to come over the Union Pacific.

On the Way to the South.

We hope quite a number of our readers will find it convenient to take a trip to the south at the close of this week, to attend the Horticultural Convention and Citrus Fair which will open in Riverside April 11th and continue during the week. The meetings, as has been previously stated in the RURAL, are to be held under the auspices of the State Board of Horticulture as one of the two conventions provided for by the State law. Many should avail themselves of this occasion and of the reduced fare which is offered by rail and by steamer to visit the south and observe for themselves the wonderful growth and progress about which so much has been written in our columns during the last few years, and especially within the last twelvemonth.

Supposing there will be quite a disposition to take this journey, we select for illustrations upon this page two views, one which the traveler will pass through if he goes by rail; the other a coast view, of which many will be enjoyed by those who choose to go down by steamer.

The upper engraving shows the famous loop in the Tehachepi mountains. It is counted one of the country's grandest monuments to modern railroad engineering. The ability and skill seen in this work from a scientific standpoint has been the subject of repeated comment by the leading technical journals of the world, and the newspapers continually recur to this unique piece of work and the signal success of the engineers who ran the lines. Tehachepi, 120 miles from Los Angeles, is the highest point on the railroad (3964 feet) between San Francisco and Los Angeles. The name signifies the coming together of the mountains of the Sierra Nevada and Coast Range. Between Tehachepi and Caliente, 26 miles further west, is the "loop," its great peculiarity being that the road, in climbing the elevation, is made to cross itself. Its exact location is 352 miles from San Francisco, or 130 miles from Los Angeles. The length of the loop is 3795 feet; lower elevation at tunnel 2956 feet, and upper elevation at grade over tunnel, 3034 feet; difference in elevation, 78 feet. The engraving (from Major Truman's book describing the Sunset route of the Southern Pacific Co.) shows the general features of the loop, the entrance to the tunnel and the crossing. Inquiry at the engineering department of the railroad company here develops the fact that this Tehachepi loop was the first one of the kind ever made, and the plan was devised and carried out by the engineers of the company.



THE LOOP IN THE SOUTHERN PACIFIC RAILROAD, AT TEHACHEPI, CAL.

On leaving San Francisco bay, through the famous Golden Gate, a fine view is presented of that historic portal. One can obtain, from the ocean point of view, a much better idea of the harbor entrance than from the hills on either side. The steamer passes close outside of the Seal rocks, and in its southern course soon passes Point Montara, where there is a fog signal. Four miles below is Pillar Point, behind which is Amesport Landing or Half Moon bay.

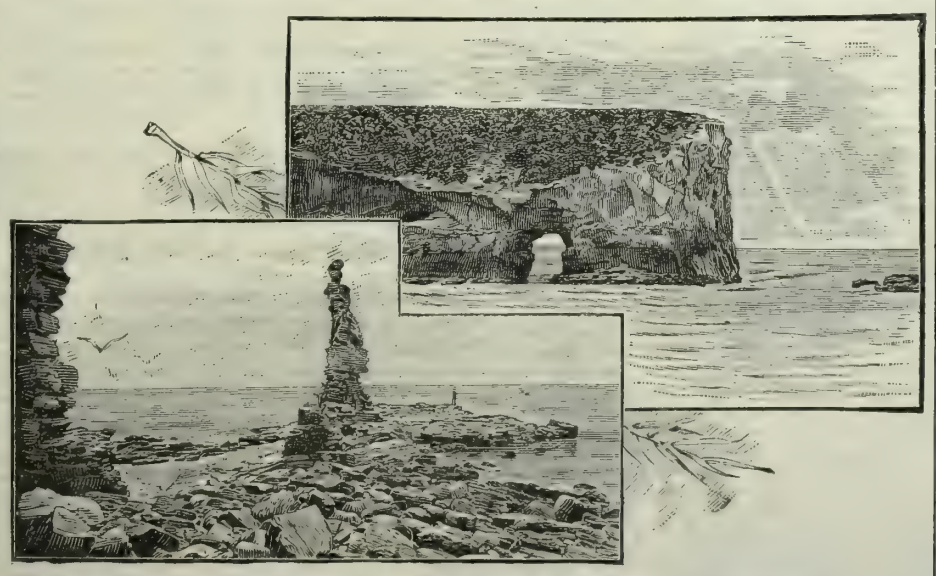
Pigeon Point, the next noticeable landmark, has a lighthouse of the first order and a fog signal. The country in the vicinity of this point is a fine potato-raising section, and there are some sawmills near there also. New Years Point (or Ano Nuevo) is 18 miles above Santa Cruz, and is another fog-signal station. Another lighthouse is met at the point at Santa Cruz. Here opens the wide expanse of Monterey bay, around the edge of which are many settlements of more or less note. At the northern extremity is Santa Cruz, and at the southern, Monterey, where so many tourists gather every year.

After crossing Monterey bay and passing Point Pinos, the small bay of Carmel is passed, a place where formerly the whalers had a rendezvous. Between that and San Simeon is Point Sur, a high, round-topped point connected to the mainland by a low neck. Then comes Piedras Blancas (white rocks), where there is a lighthouse marking the northwest point of San Simeon bay. Near San Simeon is a whaling station, and just below is the town of Cambria, where small vessels land for dairy produce, etc. Twenty miles further south is Cayucos, a small place whence dairy produce, wool, hogs, etc., are shipped to San Francisco. Below that is Moro bay, and then San Luis Obispo harbor, or Port Harford.

After leaving San Luis Obispo harbor, several small landings are passed, and the ocean traveler sees Point Arguello, the scene of the famous shipwreck of the Yankee Blade in 1854. Twelve miles further south is Point Conception, which forms the dividing line between the southern and northern climates. Strong winds are apt to be the rule for summer north of this point, but once south of it the air is warmer and pleasanter. From this point south as far as San Buenaventura there is a belt or streak of kelp all along the coast.

The next place of interest is Santa Barbara, where the steamers stop. Then come Carpinteria and San Buenaventura. Between Point Magu and San Buenaventura, about half-way, lies Point Hueneme, which, with Anacapa island in front of it, makes the eastern entrance to the Santa Barbara channel, through which the southbound traveler has been sailing many miles. It is the off-lying islands that make this channel, which is more or less protected from severe ocean swells. Numerous submarine oil wells also help to keep the waters smooth.

In the center of the long curve of the coast from Point Duma to Point Vincent, is the town of Santa Monica, on Santa Monica bay. South of this is Point Fermin, the lighthouse of San Pedro harbor, the seaport of Los Angeles. The traveler lands here at Wilmington and goes by rail to Los Angeles. Or if he chooses, he goes on past Anaheim and Newport to San Diego, and takes cars there for Riverside and other points in San Bernardino county.



WAVE SCULPTURE AT SANTA CRUZ AND SANTA MONICA.

The engravings give a near view of some of the wave sculpture which may be seen on the coast, the natural bridge at Santa Cruz and the statue at Santa Monica. Similar creations in the rocks are found everywhere up and down the coast.

IT is estimated that 90 people were frozen to death in Dakota last winter.

Seeking Truth in California.

As many of the people now reaching California from the East come with a purpose different from that which actuated former arrivals from that quarter, it is to be expected that they will examine into matters and things here in a more careful and scrutinizing manner. A large portion of the present immigration come to buy land on speculation, or to settle and make their homes here; wherefore it behooves them to proceed with caution and avoid mistakes at the start. And this, it may be observed, they seem disposed to do, the most of them acting in a prudent and business-like manner. Instead of accepting statements in an off-hand way, as was once the case, they listen to what others have to say and then carefully inspect matters for themselves. Even the pleasure-seekers, tourists and such as come here for temporary sojourn appear to be less credulous than formerly, discounting much that is told them about California in a way indicative of a skeptical state of mind.

Such being the case, it would be well for the old resident to hereafter avoid, in his descriptions of objects and events, undue amplification. He might perhaps find it expedient to even abate something from the weights, measurements and big figures by him heretofore adopted. If he cannot consent to reduce the size of the Big Trees, he might at least consent to their honest measurement by taking their girth a few feet above the ground, instead of down at its surface, where they have been abnormally enlarged by the exposure of the roots, through the washing away of the earth around them. Certain other data, generally accepted might, in like manner, suffer some change without serious detriment to the cause of truth.

But, after all, we don't see why these, our Eastern visitors, should be so captious about what we Californians have to tell them, putting a literal construction on all we say and exacting proof of its correctness. It is in no such spirit we listen to their recitals. When the Boston man tells us about Bunker Hill monument, depicting in glowing terms its hight, its symmetry and its vast proportions, do we question what he says? By no means; but hearing him through, exclaim, prodigious! sorrowing that California has no such pile, and wondering if there is elsewhere in the world anything like it! When the New Englander describes to us the sea serpent that makes his annual appearance off Nahant shoals, do we shrug the shoulder or exchange with each other the knowing wink? And when the Philadelphian grows enthusiastic over the old Liberty Bell, are we the people to cry out, "Yes, but the thing is badly cracked!"

Certainly not. On these and all like occasions we have shown ourselves to be patient, tolerant and polite, expressing a due degree of wonder at what has been told us, and indulging the well-affected laugh when it was intended to be humorous. Nor have we, while exercising so much good nature, ever sought, certainly not more than once or twice with any success, to palm off on these strangers a woolly horse or a live mermaid. Amenities like these should, we hold, meet with proper recognition and appreciation, despite the modicum of untruth and self-glorification practiced on both sides.

Entomological.

The Red Scale and the Gas Remedy.

In a paper recently read before the Los Angeles County Pomological Society, by D. W. Coquillett, entomologist of the society, we find a most excellent and popular description of the life history of the scale insect, and an important statement concerning a newly tested method of killing the scale. We quote as follows:

Southern California in general, and Los Angeles county in particular, is infested with a comparatively small number of different kinds of injurious insects; of these the most prominent ones belong to a group commonly called "scale insects," from the fact that the greater number of them are covered with a thin shell, or scale. Of this kind is the red scale (*Aspidiotus aurantii*), a pest too well known in this part of the State to require an extensive description; suffice it to say that it is considerably flattened, of a light reddish color, the scale of the female being nearly circular in outline, while that of the male is smaller and more elongated.

To the casual observer these insects appear as small blisters, or excrescences on the fruit or tree, being to all appearances wholly devoid of animated life; and yet if we study them more closely we shall see that they are endowed with life the same as any of the higher animals.

Growth of the Insect.

The female red scale deposits eggs which are in such an advanced state of development as to be scarcely worthy of the name of eggs, since they hatch out so soon after being deposited—in the summer season seldom requiring more than a day from the time they are deposited until the young ones issue from them. The young are provided with six legs and a pair of antennæ, or feelers, and closely resemble the young of spiders. After issuing from the eggs they remain a day or so beneath the parent scale, and then start out in search of a suitable place in which to take up their abode; they seldom wander far in search of such a place, which is usually a depression or hollow in the fruit, if any fruit is at hand, otherwise they settle indiscriminately upon the leaves and bark. Here they soon insert their beaks and proceed to imbibe the sap; the beak consists of three exceedingly fine, bristle-like organs, controlled by a set of powerful muscles, and when the insect wishes to insert them he first brings them together and then gradually pushes them into the fruit, leaf or bark, as the case may be, the three separate parts thus brought together forming a hollow tube, through which the sap is drawn.

In a short time there issues from all parts of the young scale insect's body an innumerable number of short and very fine waxen threads which unite next the body, and being shortly joined by others, soon form a whitish covering, or scale; this excretion takes place very rapidly in the summer season, the insect becoming wholly concealed from view within 12 hours after the insertion of its beak. This excretion is on the under as well as on the upper side of the body, so that the insect is in due time encased between two shells or scales, somewhat as a turtle is. The two scales are not so closely joined together at the sides as to exclude the air, this element being as essential to the life of the scale insect as it is to any of the higher animals. Like bees and butterflies, the scale insects breathe through a series of spiracles, situated on each side of the body.

After the young scale insect has increased somewhat in size it casts off its old skin, and with it is also cast off the legs and antennæ, so that the insect now consists simply of a sack of animated matter, its only visible organ being its beak. When one of these insects is carefully removed from its scale the insect will usually remain suspended by its beak, which is finer than the finest hair and scarcely visible to the naked eye.

In the case of the female scale insect, no other important change occurs, except a second casting of the skin; but the male insect passes through a quiet pupa state, and finally issues as a minute, two-winged fly. Among the hundred thousand members of the vast class of insects, there is not another group in which the different sexes are so dissimilar as they are among the scale insects. Here is the male, a sprightly, two-winged fly, provided with a full complement of legs, antennæ and eyes, while his better half is destitute of even a trace of legs, antennæ or eyes, and is destined to be imprisoned during the term of her natural life in the scaly house which she herself builded.

In due time the eggs are deposited, and from personal observations I am led to believe that each adult female deposits only one egg a day, and in the summer season this hatches out within 24 hours after being deposited.

There appears to be from four to five broods, or generations, produced in one year, but there is no distinct limit between the different broods, the insects being found in all stages of development every month in the year.

Historical.

As near as can be ascertained, the red scale was first introduced into Los Angeles county in the year 1879; it was brought upon some lemon trees purchased in San Francisco, and said to have been imported from Australia. Prof. J. H. Comstock, formerly entomologist to the Department of Agriculture, but at present instructor of entomology in Cornell University, obtained specimens of the red scale from New Zealand, where it occurred upon some orange and lemon trees imported from Sydney, Australia; and, upon comparing these specimens with others from Los Angeles, found them to belong to one and the same species. He cites an instance where an infested orange grove of 33 acres in Australia rented for a little over $8700 per annum nine years ago, while six years later only $580 rental per annum could be obtained for it. It thus appears that the red scale is quite as destructive in its native home as it is in this—the land of its adoption.

The first indication of any serious results produced by its attacks upon the tree is seen in the falling of the leaves, shortly followed by the death of the smaller twigs, especially of those at the outer ends of the branches. This is continued until all of the branches, and finally the trunk, succumb to the attacks of these Lilliputian foes.

A well-known peculiarity which always accompanies the attacks of the red scale upon the leaves is the fact that it produces a yellowish-white discoloration in that part of the leaf. This has sometimes been attributed to the extraction of the sap by the insect, but this cannot be the true cause of this phenomenon, else all insects which feed upon the sap of plants, and especially the black and cottony-cushion scales, would also produce a similar discoloration in the leaves which they attack; but this is not the case. It seems more probable that the red scale, like the common mosquito, ejects a small quantity of a thin liquid into the wound it makes, in order to dilute or make thinner the sap of the tree, so as to be able to imbibe it through the minute opening in its beak; and some of the liquid thus ejected is carried by the sap beyond the reach of the insect's beak, and produces the discoloration always observable in leaves attacked by these insects. The same thing occurs in the case of the attacks of the pernicious San Jose scale upon the bark and fruit of various kinds of deciduous fruit trees, except that the discoloration made by the latter species is of a reddish instead of a whitish color.

No internal parasite is known to attack the red scale, and the only insect I ever saw preying upon it is the two-spotted ladybug (*Chilocorus bivulnerus*), which both in the larva state and as a beetle tears open the scales and feeds upon the inclosed insects.

Various Washes.

But it is the remedies we are most interested in, and in this connection I may state, without fear of being contradicted, that no part of orange-growing has been more expensive to the grower, and so unsatisfactory in its results, as the spraying of his infested trees with the different washes for the destruction of the scale insects upon them.

The active principle of nearly all the washes employed in this State for the destruction of scale insects is of a caustic nature, acting exactly as vigorously upon the tree as it does upon the insects, but as the latter are more easily affected by it than is the tree, the wash necessarily proves more fatal to them, although with such lowly organized creatures as the red-scale insects are, protected moreover by their scaly coverings, the difference in regard to hardiness between the insect and the tree it infests is very slight; in fact, I have known of numerous instances where the bark of infested pear trees had been burned brown and hard by caustic solutions, while the San Jose scale insects, situated in these places, were not killed by the application; and in my experiments with solutions of caustic soda applied to orange trees for the destruction of the cottony-cushion scale, the eggs were not always killed in those places where the bark had been burned brown by the caustic.

Even after the infested orange or lemon tree has been thoroughly pruned, it has been found absolutely impossible to destroy every scale insect upon it by spraying it with the best wash at present known, and using the most approved appliances; this fact has been repeatedly demonstrated by some of the best sprayers in this part of the State. As many as 50 gallons of the wash have been sprayed upon an ordinary-sized orange tree, and yet after the application several scale insects were found upon the tree untouched by the wash, protected, it may be, by a dead leaf wrapped around the twig, or by several leaves so placed as to ward off the spray. I have myself seen an orange tree thoroughly sprayed three separate times at intervals of one week apart, and yet after the last spraying had been completed I found upon it several scale insects that had not been touched by the spray.

Gas Treatment for Scale.

Early in my investigations into this subject I became convinced of the fact that the most perfect wash that could be produced must necessarily be imperfect and unsatisfactory; and shortly after beginning my experiments with various washes for the destruction of scale insects, under the direction of the Department of Agriculture, Mr. Alexander Craw, whose name is familiar to the majority of the fruit growers in this part of the State, remarked to me that the only satisfactory manner of destroying scale insects was to inclose the infested tree in an air tight tent and then to fill the tent with a gas that was fatal to the insects without at the same time injuring the tree. I saw at once the truthfulness of this remark, since the gas by filling the tent must necessarily reach every insect on the inclosed tree, while if the gas did not by contact injure the tree it would not do so at all, as it would leave no deposit on the tree to subsequently endanger its life. Mr. Craw also informed me that for some time past Mr. J. W. Wolfskill and himself had conducted a series of experiments with various fumes and gases, which resulted in the discovery of a gas that proved fatal to the insects without injuring the tree; and that it was necessary to subject the insects to the influence of this gas for a period of from two to three hours. Shortly after making this discovery they devised an apparatus for operating the tent.

Some time after my work for the Department had been completed, I began a series of experiments with gases for the destruction of scale insects, and succeeded in discovering one that proved fatal to the insects confined in it for only 10 minutes. When Messrs. Wolfskill and Craw learned this fact they invited me to join issues with them. This I consented to do, and together we have succeeded in perfecting both the production of the gas and the working of the apparatus for operating the tent. Extensive experimenting has proved that this gas, as now prepared by us, will not injure the tenderest growth nor the blossoms, while it proves fatal to the cottony-cushion scale, red scale, San Jose scale and black scale, and it is as effectual when applied to tall trees as to small ones.

A Recent Testimonial.

The Orange *Tribune* of April 2d says:

The last experiment made by Messrs. Craw and Coquillett, with their gas bug-killer, was much more successful than the first. The trees operated on show no signs of live scale bugs, and the two large ones are not injured in the least by the treatment. Two smaller ones are burned to some extent, but how badly they are injured is yet to be seen. We think the experiment has demonstrated that the gas, if properly applied, will kill *every scale bug* and not injure the tree.

The Woolly Aphis.

Editors Press:—J. A. Patterson, living three miles north of Visalia, while speaking of growing apples here, says that with him the white Winter Pearmain withstands the woolly aphis. He has many varieties in his orchard of about 100 trees. He has only seven or eight of the white Winter Pearmain variety, but on those seven or eight trees he raises about as much as he does on all the other trees of the orchard, owing to the fact that his other trees are all much troubled with the woolly aphis. He also says this tree doesn't drop its fruit as early as most varieties do. The soil here is clayey loam.

L. R. Runyon, six miles northeast of Visalia, furnishes the following recipe for removal of woolly aphis, which he says has been presented to the public by T. H. McNamie, of Lemoore: Take one-half pound Barbadoes or crude aloes and dissolve in one gallon alcohol. Water should not be included. Apply with sponge. In October and November this preparation should be applied to body of tree close to ground. April and May are, however, the best months to do the work, and then the whole tree should be sponged.

Mr. R. has tried this wash on apple trees near Lemoore, and, while it is most effective, he thinks it too costly. He suggests that the tree infested should be cut back and the balance sponged. It is a dead shot, and the cost is the only objection to it. It would be well for persons having woolly aphis to experiment on modifications or slight changes of this formula, with a view to cheapening without deteriorization, and report to the Rural Press.

Tulare Co. McD.

The Field.

Summer-Fallow as a Moisture Saver.

Summer-fallowing for the conservation of moisture has now its advocates in all parts of the Pacific Coast. We have given at considerable length during the last few years the experience and resulting theory in California, and Californians will read with much interest what we shall now quote from the writings of Judge Kennedy in the Walla Walla *Union*. Of course conditions are different in Washington Territory, but there are many principles mentioned which are of general interest. We quote as follows:

For summer-fallowing the ground should be plowed to at least somewhere between six and eight inches. The harrow should *follow* the plow, so that, if possible, the ground should be harrowed twice upon the day when it is plowed, and when the whole plowing is completed it should be harrowed at least twice again. The object of this harrowing, simultaneous with the plowing, is to make a mulch of the surface of the ground and retain what moisture is contained in it, and, as a matter of course, the earlier in the spring the work is commenced and the sooner it is finished the less moisture is permitted to evaporate, for evaporation increases in intensity, so to speak, as the season advances.

To give an idea of what I mean; last year I had a body of land on which a crop was growing, on one side of a ravine near Alto; upon the other I had a similar body of summer-fallowed land in readiness for the crop now growing upon it. My crop of 1886 was harvested and thrashed quite early in the season. At the first setting of the thrashing machine, I dug two feet into the earth without finding any moisture; at the second, three feet; and at the third, four, with the same results. I then took Mr. Thomas M. May, of Dayton, who harvested my crop for me, across the ravine and showed him that the moisture in the summer-fallow was everywhere within from two to four inches of the surface. Subsequently, I dug down in the land that had been cropped four feet and five inches, at which depth slight evidences of moisture began to manifest themselves, and so continued to five feet, four inches, where the earth cohered when pressed between the fingers, but even there it was by no means so moist as it was between two to four inches in the summer-fallow. The harrowing of the surface of the summer-fallow had acted as a mulch to prevent evaporation and retain the moisture beneath it, in the soil, and it is evident, from this experiment, both that a large part of the annual rainfall can be kept near the surface of the ground for several months, and that its downward percolation or drainage is very slow indeed. The land in question has an average annual rainfall somewhat in excess of that of Dayton.

Now then, it is manifest that if the object be to raise a spring crop, which, according to my observation, does not pay except on the very best land, save in exceptional seasons, it should be put in at the very earliest moment possible in the spring, and if the ground be for summer-fallow, it should be plowed at the same time. The object in the first case being to speedily utilize the moisture that is in the ground in the growth of the crop, and in the second, to store it up so that more than one year's rainfall will go to the growth of the summer-fallowed crop.

I am unable as yet to give accurate tables as to the annual evaporation of the rainfall from the soil of Eastern Washington, but am persuaded that it is much more than in any other place where it has been properly measured. In England, at a point where the mean annual rainfall from 1860 to 1872 was 27 7-10 inches, the mean annual evaporation was a little over 19½ inches, leaving over 6 inches to drain away directly to the streams and thence to the ocean.

The above paragraph does not fully express the idea I wish to convey. Resorting to a table of annual mean evaporation for a period of 10 years, at a point in England, I find the loss of moisture for the following months to be as below:

January	0.95 of an inch.
February	1.01 " " "
March	1.77 " " "
April	2.71 " " "
May	4 11 " " "
June	4.25 " " "

From June to the end of the year the evaporation there, as here, decreases rapidly as the weather becomes cooler and the year draws toward a close.

An examination of the above table will show with what rapidity evaporation increases as the season advances, even in a climate so moist and cool as that of England, and reflection will convince any one that while the ratio of evaporation in Washington Territory may be about the same, the actual amount evaporated from the soil in the spring and summer months will be much greater. Then, again, it is to be remembered that in all the above months, except one or two, the rainfall, in England, very nearly balances the evaporation, while with us it is almost all loss, with a comparatively small amount of gain, so far as rainfall is concerned.

Perhaps the following statement will show clearly the enormous amount of moisture that may be evaporated even early in the year, when the weather is cool:

On the 25th of February, 1887, the streets of Walla Walla were covered with snow, as they had been for some weeks, before which they were muddy. On that day and the next the snow began to disappear from Main street; on the 27th it had wholly gone from the middle of the street, which was dusty; and on the 28th it entirely disappeared and the street was quite dusty. Now on the 28th, as I was assured by Sergeant Blandford, of the Signal Service Office, he placed a small cupful of water on the top of Paine's building; the cup was 1½ inches in diameter by 1½ inches in depth, as we found by measurement; it was in the shade (indeed, the weather was cloudy, I think), but a strong wind, greedy for moisture, was blowing, and in less than 16 hours the entire contents of the cup had evaporated. Was it any wonder that the street was dusty?

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Money Loaned

On Country Real Estate in large and small amounts, at lowest rates, by A. Schuller, 106 Leidesdorff St., room 3. ee

NO MORE SNUFFING, HAWKING, OFFENSIVE BREATH--NO MORE CATARRH!

CALIFORNIANS

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CALIFORNIA TESTIMONIALS

AND NONE OTHER!

When they pay money for a prescription they demand some assurance of a good result. No prescriber warrants. Our National Disease has been neglected and allowed to run its course, because, heretofore, there has been no guaranteed cure. Years of patient toil and research have brought forth the **Only Absolute Cure for Catarrh, Neuralgia, Nervous Headaches, Catarrhal Deafness, Sore Throat, Inflamed Tonsils, Bronchitis, Granulated Lids, Weakness of the Optic Nerve, Diphtheria** and **Quinsy.** We have proved that the "CARBOLIC SMOKE BALL" and the "DEBELLATOR" will cure, by the numerous Home Testimonials published, and which we will be pleased to send to any address.

THE PEOPLE

ARE DONE WITH EXPERIMENTING!

WORTHY THE SCULPTOR'S CHISEL!



THE WORDS OF PRAISE!

THE LETTERS OF COMMENDATION

Received from those who have Tested the Merits of the

CARBOLIC SMOKE BALL!

WE WARRANT OUR CLAIMS!

(Which are constantly being verified by Home Evidence.)

Catarrh—Cured in from three to six months; warranted.

Asthma—Cured in nearly every case; always quickly relieved.

Bronchitis—Cured in every case; warranted.

Hay Fever—A cure guaranteed when taken in time.

Catarrhal Deafness—Cured in from three to six months.

Eyes—Granulated lids, weakness of the optic nerves, etc., cured within two months.

Neuralgia and Headache—Stopped after the third application.

Diseases of Children — Whooping cough cured; croup relieved in five minutes and cured within two days.

Throat Troubles—Quinsy quickly relieved and thoroughly cured, as are inflamed tonsils and ulcerated sore throat.

Snoring—Three doses each night before retiring cures this trouble.

Colds—In the head, cured by a few applications; fresh colds on the chest, in 12 hours.

THE COMPLETE TREATMENT includes the "Debellator" package, unequaled as a blood purifier, which must be used in Catarrh when there is a dropping of mucus into the throat, biliousness, or where the bowels are irregular or there are stomach or kidney disorders. It should be used in all cases of Catarrh, Asthma, Bronchitis, Hay Fever and Ulcerated Sore Throat. Price of the complete treatment, $5; "Smoke Ball," $3; "Debellator" package, $2. One complete treatment is generally sufficient.

MAIL ORDERS receive careful and prompt attention. State disease or symptoms in writing, addressing MAIN OFFICE. Complete treatment mailed on receipt of price, $5, and four cents in stamps. "Smoke Ball," $3 (four cents in stamps). "Debellator" packages, $2.

"CARBOLIC SMOKE BALL" CO., 652 Market St. {Cor. Kearny, Rooms 7, 8, 9, 10} San Francisco.

SAN FRANCISCO: Junction Market, Pine and Davis Streets.

BAKER & HAMILTON.

SACRAMENTO: Nos. 9, 11, 13, and 15 J Street.

MANUFACTORY: Benicia Agricultural Works, Benicia, Cal. EASTERN OFFICE: 88 Wall Street, New York.

IMPORTERS, MANUFACTURERS, AND DEALERS IN

HARDWARE and AGRICULTURAL IMPLEMENTS.

1887

Benicia Improved Mower.

Manufactured by BENICIA AGRICULTURAL WORKS, Benicia, Cal.

In presenting our BENICIA MOWER, as improved for 1887, we are placing on the market a machine that has no superior. Great care has been exercised in their manufacture, both as regards material and workmanship.

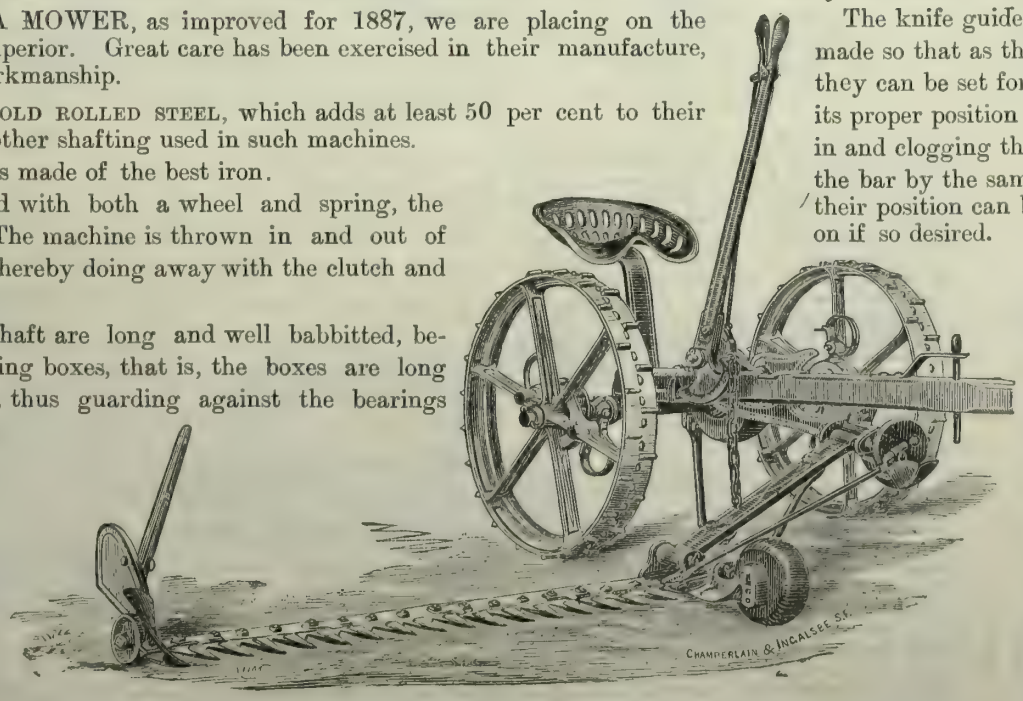
The shafts are all made of COLD ROLLED STEEL, which adds at least 50 per cent to their strength as compared with any other shafting used in such machines.

The gearing is incased and is made of the best iron.

The outside shoe is furnished with both a wheel and spring, the spring being wide and heavy. The machine is thrown in and out of gear by means of an eccentric, thereby doing away with the clutch and shifter lever.

The bearings of the crank shaft are long and well babbitted, besides being provided with self-oiling boxes, that is, the boxes are long and filled with wicking or waste, thus guarding against the bearings becoming heated, as the boxes hold considerable oil and continually feed it to the shaft.

The Pitman is long, and is furnished with either straight pin revolving or ball and socket connections, as may be desired.



The knife guides or buttons on the cutter bar are made so that as the back of the knife wears them they can be set forward, thus keeping the knife in its proper position and preventing the grass getting in and clogging the guards. They are bolted to the bar by the same bolts that hold the guards, and their position can be changed or more can be put on if so desired.

The cutter bar can be laid flat across the pole when traveling from place to place.

There are many other points of superiority over other machines, which, on an inspection of the machine, will show for themselves.

In fact we have no hesitancy in guaranteeing the Benicia Mower to be first-class in every particular. It is simple in its construction, of light draft and perfect in its operation.

Weight, 650 pounds. Cuts 4 feet 3 inches. Price, $90.

N. B.—We still have in stock a few CHAMPION MOWERS, which we will offer at greatly reduced prices.

The Late John G. Saxe.

Wide is the regret experienced at the announcement of the death of John Godfrey Saxe, which occurred at his home in Albany, N. Y., March 31st. It is a number of years since he retired from public sight and from the place to which his verse has always entitled him in the leading magazines; but his manly figure is not forgotten, nor have his charming writings grown stale. The keenness of their satire, the geniality of their humor, the truth and purity of their sentiment, will give them long life and always entitle their author to rank among our American poets. His published volumes have been widely distributed; every collection of fireside poems includes a number of them, and his most popular pieces have perennial youth, because of their frequent reappearances in the columns of our newspapers. John G. Saxe has endeared himself to the American heart and appealed irresistingly to our love of sparkle and geniality, and he will not be forgotten.

Mr. Saxe was born in Highgate, Vermont, June 2, 1816, and graduated from Middlebury college in 1839. He was an apt student and was especially noted for his literary scholarship. After leaving college, he first entered the legal profession and achieved more than ordinary success. His love for writing soon led him, however, into the journalistic field, and he published and edited the *Vermont Sentinel* for five years. At this time he wrote his poem, "The Editor's Sanctum," in which he paid his respects to those who thought they ought to have a paper without paying for it, as follows:

Exit the imp of Faust, and enter now
A fierce subscriber with a scowling brow:
"Sir, curse your paper! send the thing to—" well,
The place he names were impolite to tell;
Enough to know; the hero of the press
Cries: "Thomas, change the gentleman's address!
We'll send the paper, if the post will let it,
Where the subscriber will be sure to get it."

Saxe began to write poetry early, but his first work which attracted attention was read before the alumni of Middlebury college in 1846, and was entitled "Progress—A Satire." It is still regarded as one of his best works. His first book of poems was published in 1850 and ran through 17 editions, and afterward, with additions, was put through 32 editions, showing phenomenal popularity. Afterward, up to the year 1875, he published eight volumes, either single poems or collections.

His work was very popular with magazine publishers, and to the *Knickerbocker* he contributed the following, which is one of his most pleasant rhymes:

Rhyme of the Rail.

Singing through the forests,
Rattling over ridges,
Shooting under arches,
Rumbling over bridges,
Whizzing through the mountains,
Buzzing o'er the vale—
Bless me! this is pleasant,
Riding on the Rail!

Men of different "stations"
In the eye of Fame
Here are very quickly
Coming to the same.
High and lowly people,
Birds of every feather,
On a common level
Traveling together!

Gentleman in shorts,
Looming very tall;
Gentleman at large,
Talking very small;
Gentleman in tights,
With a loose-ish mien;
Gentleman in gray,
Looking rather green.

Gentleman quite old,
Asking for the news;
Gentleman in black,
In a fit of blues;
Gentleman in claret,
Sober as a vicar;
Gentleman in tweed,
Dreadfully in liquor!

Stranger on the right,
Looking very sunny,
Obviously reading
Something rather funny.
Now the smiles are thicker,
Wonder what they mean?
Faith he's got the *Knickerbocker Magazine!*

Stranger on the left,
Closing up his peepers;
Now he snores amain,
Like the Seven Sleepers;
At his feet a volume
Gives the explanation,
How the man grew stooped
From "Association!"

Ancient maiden lady
Anxiously remarks,
That there must be peril
'Mong so many sparks!
Roguish-looking fellow,
Turning to the stranger,
Says it's his opinion
She is out of danger!

Woman with her baby,
Sitting vis-a-vis;
Baby keeps a squalling;
Woman looks at me;
Asks about the distance,
Says it's tiresome talking,
Noises of the cars
Are so very shocking!

Market-woman careful
Of the precious casket,
Knowing eggs are eggs,
Tightly holds her basket;
Feeling that a smash,
If it came, would surely
Send her eggs to pot
Rather prematurely!

Singing through the forests,
Rattling over ridges,
Shooting under arches,
Rumbling over bridges,
Whizzing through the mountains,
Buzzing o'er the vale—
Bless me! this is pleasant,
Riding on the Rail!

A recent writer says of him: "Saxe occupies the same position in this country which Tom Hood did in England, and though not possessing the beauty and pathos of Lowell and Holmes, or the tenderness of Longfellow, he is a poet of whom one never tires, and his rank in the poetic scale is none the lower."

Though Saxe wrote much keen satire and much rollicking humor and apt wit, his labors included weightier themes and touch deeper



chords in the popular heart. In his *Miserere Domine* he wrote:

Our Father! ever-blessed name,
To Thee we bring our sin and shame;
Weak though we are, perverse of will,
Thou art our gracious Father still,
Who knowest well how frail we be,
Miserere Domine.

A crushing blow fell upon our poet when at the hight of his fame and prosperity, in the loss of his wife and three daughters by death. He never recovered from the affliction, but has lingered on broken in mind and wasted in frame until the last summons released him from his earthly burdens. His last years were passed in the home of his only son, in Albany, New York, who now of all the poet's immediate family alone lives to cherish his name and fame. His brother, Col. Peter Saxe, of this city, is well known to Californians. To him we are indebted for the original from which the engraving on this page was made, and which represents the poet in his best days.

GRAIN AND GRASS-CUTTERS.—Wm. Deering & Co., proprietors of the great factory of grass and grain-cutting machinery at Chicago, have established a branch office and warehouse in San Francisco, and will in future supply their interior agents direct from their warehouse in this city. Among a large line of mowers manufactured by them, the Giant Mower, cutting five, six, and even seven feet, was successfully introduced at many points in California last year, and is reported to have given the very best satisfaction. M. K. Lauden has charge of their S. F. branch office, and looks after the trade in California, Nevada and Arizona Territory, as well as the northwest coast of Mexico.

Stockton Jottings.

[Written for the RURAL PRESS by J. C. H.]

Galloways and Polled Angus.

Mr. H. W. Cowell, of Stockton, lately received a shipment from Leonard Bros., Mo., of 80 head of Galloways and Polled Angus as an addition to his herd, which he purchased from the lot exhibited at the State Fair last season. This lot is mostly heifers, there being but 14 bulls that are old enough for service. Mr. Cowell is well pleased with the prospective results from his herd of Galloways, and believes that they will become the popular cattle on the Pacific Coast. As the Pacific Coast agent for this State for Leonard Bros., he is prepared to furnish Galloways to those who wish to breed them or cross with common stock.

Chance for Settlers.

To meet the demand of the present immigrants who are seeking homes in California, the Stockton Savings and Loan Society has platted 240 acres of land, known as the "Walker tract," lying two miles from Stockton on each side of Mormon slough and between the Old Sonora and Copperopolis roads. This land is of the very best quality and suitable for the culture of all kinds of fruit and vegetables, and particularly adapted to grapes.

This tract is divided into lots containing from 8 to 14 acres, having a street or road running through the tract from north to south and from east to west. It is the policy of the managers to sell to parties who are seeking after homes, and, to carry out this feature, very liberal and easy terms in price and payment are offered by the Stockton Savings and Loan Society.

Gas Well.

Dr. Grattan, of Stockton, in company with a RURAL representative, visited the gas well near Stockton last week. An iron drill weighing 1600 pounds was being forced at a depth of over 2000 feet. From the piping a great volume of water was pouring, the temperature of which might be termed tepid. A lighted taper passing through this great stream of water would ignite the gas in the water and produce a vivid flame of fire that was from 18 to 20 inches in diameter and three feet high. The heat was so intense that it could be distinctly felt six feet away. After this volume of water, or rather the natural gas in the water, had been lighted, it would last from three to five minutes before it would subside. There are now two pipes running from this well to the engine-house, about 20 yards away, that furnish fuel every day the work is going on. Mr. Beam, who is promoting this project, is confident and hopeful that he will succeed in obtaining natural gas in sufficient quantities for domestic use and manufacturing purposes.

A Profitable Investment

Can be made in a postal card, if it is used to send your address on to Hallett & Co., Portland, Maine, who can furnish you work that you can do and live at home, wherever you are located; few there are who cannot earn over $5 per day, and some have made over $50. Capital not required; you are started free. Either sex; all ages. All particulars free.

A GREAT AUCTION.

Extraordinary Offer of the West Coast Land Co.

OVER FIFTY THOUSAND ACRES.

Town Lots in Templeton and Ranch Subdivisions to Come Under the Auctioneer's Hammer.

Notwithstanding the unprecedented success of the West Coast Land Company in the last four months, as evidenced by the sale of over 10,000 acres of farming land, in subdivisions of convenient size for men of moderate means, and the sale of town lots, which has, within the same period, built up the busy and flourishing town of Templeton from absolute nothingness, the owners of the property—which, less the sales of the last four months, embraces 64,000 acres—have decided to offer it all—town lots and farm lots— at public auction on the 14th, 15th, and 16th of April inst. Practically the property will be

SOLD WITHOUT RESERVE,

The only condition being that the bidding shall not be less than 60 per cent of the catalogue price. As the schedule prices range from $10 to $30 an acre, there is really no limitation of the sale in this requirement, as the full price is regarded by every one acquainted with the lands as being exceedingly low. The description of the property in the advertisement which is published in another column shows the quantity in each of the four big ranches in which the West Coast Land Company is interested. It is good farming, fruit and vine land, and requires no irrigation, which will greatly enhance its value in the estimation of all who are familiar with California. The upper Salinas valley, where all the land is situated, is a particularly healthy region, even as compared with other parts of California; there is no malaria and no alkali; no fierce winds and no extremes of heat and cold. The land is fertile, and the railroad has its present terminus at Templeton in the center of the territory offered for public competition.

THE AUCTION ARRANGEMENTS

Have been placed in the hands of the well-known and experienced San Francisco firm of Easton & Eldridge, whose name is a guarantee that everything will be done systematically and honorably. Mr. Easton, who has personally examined the lands, expresses the most unbounded faith in their value and the certainty of a lively competition for their possession. The Southern Pacific Co. has made an extraordinary excursion rate of $6 for the round trip from San Francisco to Templeton and return. The tickets will be good for five days, the train leaving San Francisco at 8:30 A. M. on April 13th and stopping to take on passengers at all the principal way stations. Everything has been arranged for the comfort, convenience and entertainment of 2000 people, and it is highly probable that number will be present. Some

FEATURES OF THE PROGRAM

Are as follows: The excursion train or trains will reach Templeton at 5:30 P. M. on Wednesday, April 13th. A sufficient number of Pullman sleeping cars will be provided to furnish accommodations for those who cannot get entertainment at the hotels. On Thursday morning teams will be furnished free for the excursionists to view all the surrounding country, and a like opportunity will be afforded every day during the continuance of the sale. There will be

A BARBECUE EVERY DAY,

And after the feasting the sale will commence. Bands of music will play at appropriate times and the occasion will be a mammoth picnic such as California has never before witnessed. In view of the great demand for lands in this part of San Luis Obispo county, of the extensive preparations being made, and above all of the rare opportunity to get any sized parcel of fertile land—5, 12, 50, 100 or 1000 acres—at auction, on terms which, after paying one-third, give two, three, four and five years for the purchase money, it seems reasonable to believe that the auction will attract people from all parts of the State, and that the amount of land and lots sold will be enormous.—*Templeton Times.*

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

Liberal Religious Literature.

Views, Opinions and Sentiments of Eminent Writers on Religion and its Relation to Man and Society. Address MISS HARRIET KELSEY, Sec'y, Unitarian Church, San Francisco. Correspondence invited.

CALIFORNIA VICTOR MOWER

IMPROVED!

Guaranteed to do More and Better Work, with Less Draft upon the Horses, than any other Machine made. We Guarantee Construction, Material and Operation in the Field.

AGENTS WANTED!

WILL REPLACE,

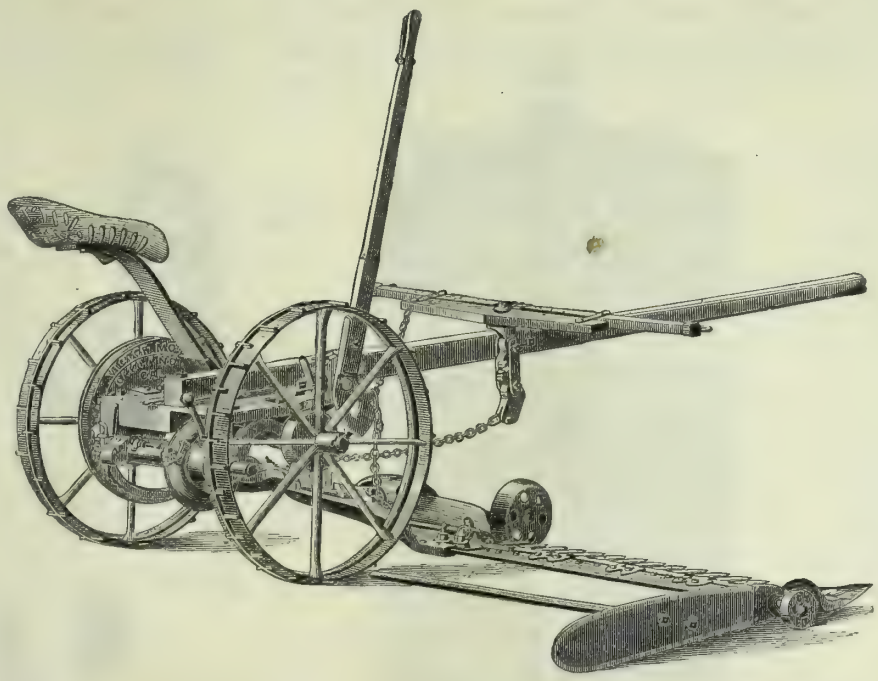
FREE OF COST,

ANY PART

Found Defective.

GUN METAL

BEARINGS.



FOUR SIZES:

4 Feet Cut,

4 1-2 Feet Cut,

5 Feet Cut,

6 Feet Cut.

NO

Side-Draught

If there is no Agent for the VICTOR in your Vicinity, write us direct for Prices and Terms.

THE HOGUE COMBINED CULTIVATOR AND WEED CUTTER

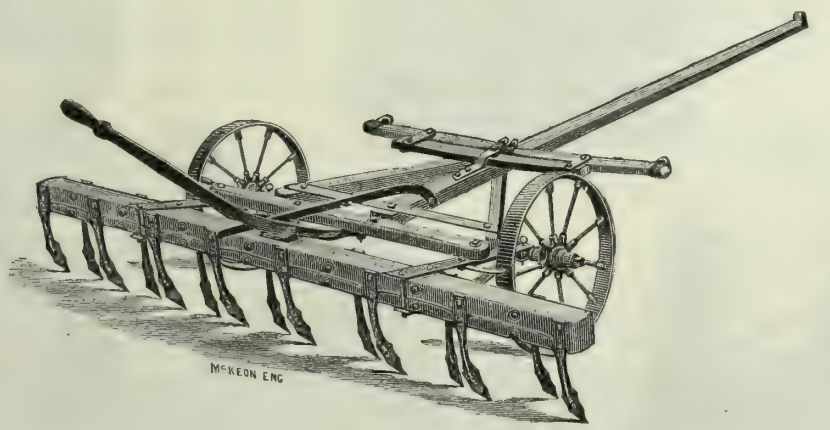
Is absolutely the best Orchard and Vineyard Implement yet devised.

2 Complete Tools

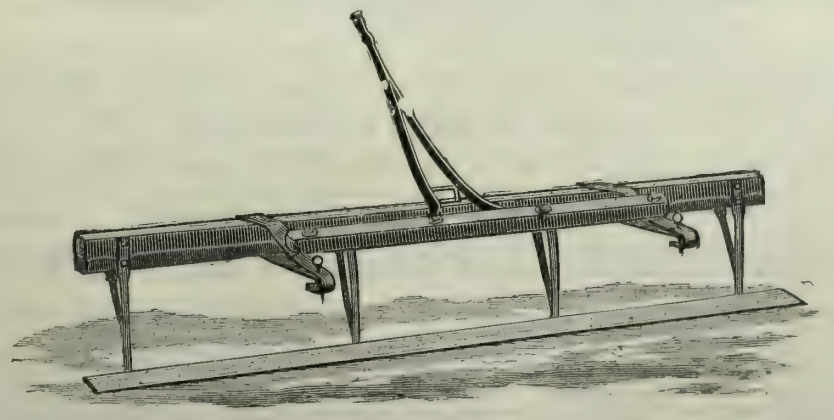
IN ONE.

Cost of Cultivating Orchards and Vineyards Reduced to the Minimum, or about the same as open field Cultivation.

NO FLOWING REQUIRED.



CULTIVATOR IN POSITION FOR WORK.



WEED CUTTER DETACHED FROM WHEELS.

Improved for the Season of 1887 by the addition of a Gauge to regulate depth of cut of both

Cultivator and Weed Cutter.

Send for Circular containing Testimonials from prominent Orchard and Vineyard Men who are using this Implement.

JUDSON MANUFACTURING CO.,

8 Pine Street, · · · San Francisco.

Artesian Well Machinery.

The excellent results attained by artesian well-boring in various parts of the State, from the extreme south almost to the upper limits of the State, and from the low grounds of the great valleys to the mountain meadows of the Sierra Nevada, warrant us in giving space to an explanation of one of the sets of machinery which is doing good work in this State, and that the outfits furnished by the American Well Works of Aurora, Ill. This establishment issues a pamphlet of 225 pages, describing its well-boring machinery and methods, and as may be imagined, there are hosts of devices for doing different things in connection with well-boring. We select a few illustrations which show the special machinery which has made an excellent record in this State, and especially of late in Sierra county.

The general method of sinking wells is shown in the sectional drawing, Fig. 1. The process to which we refer is known as the revolving hydraulic well sinking process, and the rapidity with which it can be carried on is remarkable. It consists of a machine gripping and turning the well-casing. The lower end of this casing is shod with a steel cutter called a shoe, which is similar to a circular saw. It is made of the best of steel, and it will cut a path for the casing to follow down easily. The upper end has a hydraulic swivel connected with it to which hose is attached. The hose conveys the water down the casing with great force, and going to the bottom passes out between the teeth of the cutter, carrying the dirt or cuttings up, and out with its force, keeping the hole clear so that the pipe has a free and easy rotation. It will be noticed that the water passes down on the inside of the casing and out at the bottom, and comes up on the outside of the casing. The casing forms the wall of the well when completed. This works on the same principle as the diamond drill, which works in harmony with this machine, with the exception of this process, which sinks a well without the drilling tools, the core being left standing in the tube to be worn away by friction, or to be washed out, or when reaching beds of sand. When the core is of clay or a similar composition, on reaching beds of sand, gravel, or cavities in the earth where water will run down into it, the water coming down the casing forces the core down and fills the cavity or percolations in the sand and gravel, stopping it up and making a clayey wall round about the casing, keeps the quicksands from caving on to the casing, and makes a clayey wall in the caving substance in the earth.

In case there is not a sufficient core to make this clayey wall, clay is forced down the tubing, which seeks to pass through the percolations in the earth where water passes, and stops them up. This prevents the quicksand and gravel or other caving material from crowding against the casing and stopping the work. The casing in this process must be kept in constant revolution and a continuous stream of water down the tubing maintained until the well is completed, as it would become fast by the pressure of the loose material against its outer surface. Accordingly the machinery is so arranged that it is not necessary to stop the tubing bring turned or to stop the water being forced down, from the time work is commenced until the desired depth is attained or material met that the steel cutters will not penetrate. In that case, if it is desired and known or expected that such materials will be met, a set of diamonds can be put in that will penetrate everything met in the shape of the hardest boulders or granite.

Fig. 2 shows the derrick and engine ready for operation.

Fig. 3 is an illustration of a heavy, double-pinioned rotary swiveled machine. It will sink a tube from 2 to 15 inches in diameter to a depth of 500 feet with 8-inch pipe; to a depth of 700 feet with 7-inch pipe; 900 feet with 6-inch pipe; 1500 feet with 3-inch pipe, and 300 feet with 12-inch pipe. It will sink a 15-inch pipe 200 feet. It has a power drum or wrench with which the casing is handled when sinking. It is mounted on the upright, immediately above the drilling-drum and is used for handling the weight of pipe and lowering it. It will be seen that in this machine there are two hands represented. The left hand has hold of the lever, and the right hand has hold of a swivel-nutted wrench. The two hands represent the position the man is in when the machine is in operation, only he should be on the right-hand side of the machine instead of the left. With his right hand, as shown, he can tighten or loosen the grip at pleasure, while the pipe is being revolved. With his left hand he reverses the machine. This machine is so constructed that it is driven by two pinions on both sides of its center wheel or revolving turntable. The tackle-block and rope, as illustrated, is to hold the weight of the pipe, and its loose end is around the drilling-drum, which is released by a suitable tension by the brake. The hose is connected to a water swivel, by which water is forced into the casing and passes down and out. The rope that is wound on the spool is used for ordinary lifting, and when revolving down the pipe it is used to lift additional lengths of pipe up into the derrick, together with the second swivel and hose, so as to be in readiness to be quickly connected when it is necessary to add other lengths of tubing.

In Fig. 4 is seen another form of drill, called the "rotary paddy." It expands by pressing down, and makes the hole by being revolved on the boring-rod. Water is forced down the pipe as in the other drill, but of course leaves no core to be taken out.

These appliances are all manufactured by the American Well Works, at Aurora, Ill.

FIG. 1.



FIG. 2.

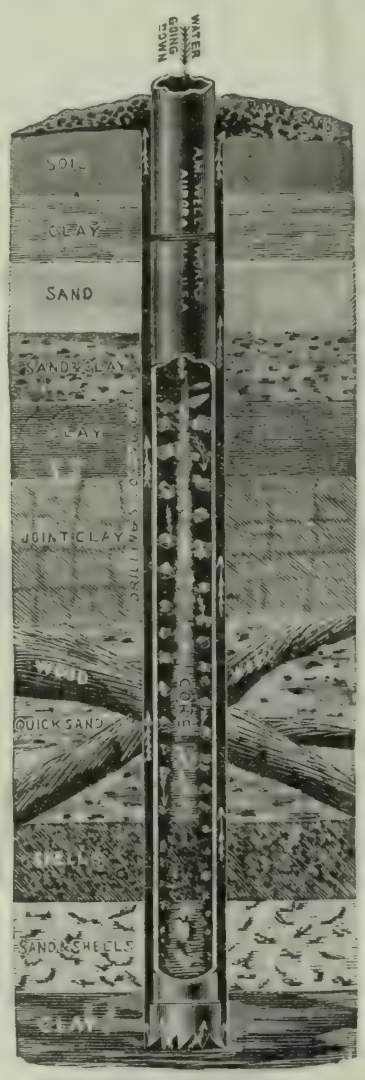


FIG. 4.

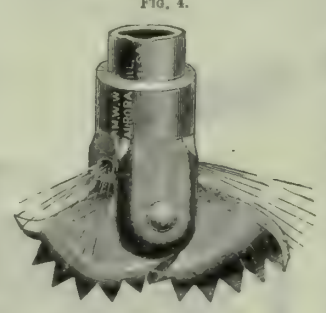
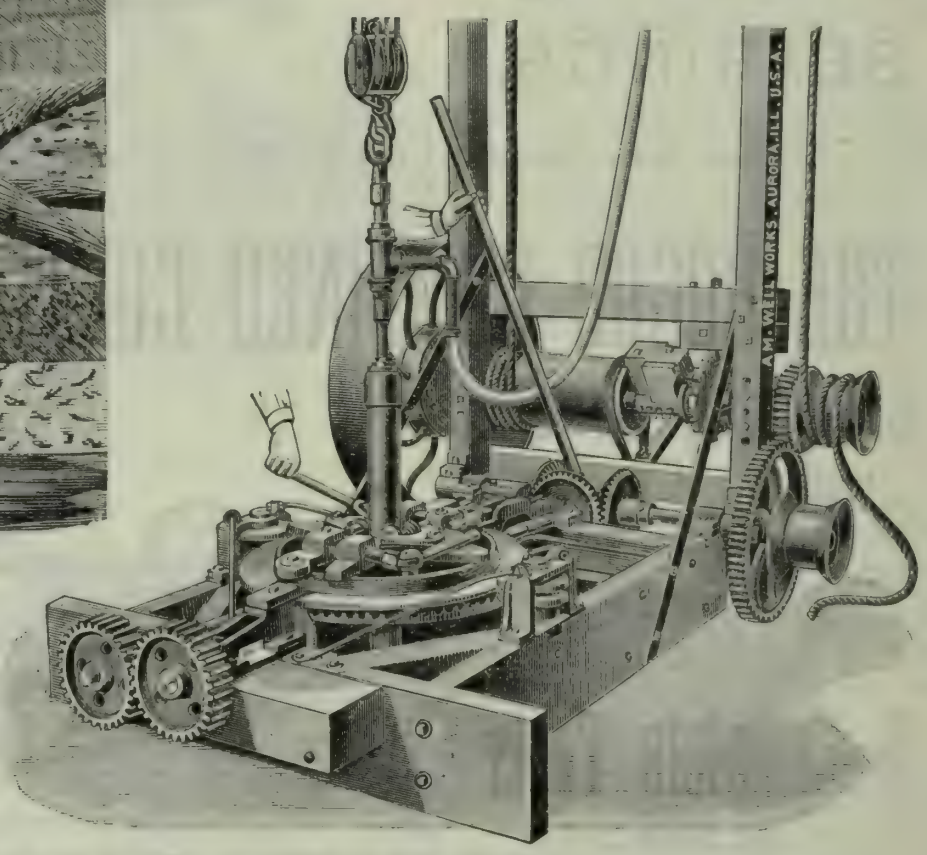


FIG. 3.



ARTESIAN WELL MACHINERY NOW IN SUCCESSFUL OPERATION IN THIS STATE.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Cheap Money for Farmers.

Farmers in this State will be glad to learn that they can borrow on mortgage any amount, from $5000 to $500,000, from S. D. Hovey, 330 Pine St., San Francisco, at 6 to 7 per cent and taxes. **

The huge, drastic, griping, sickening pills are fast being superseded by Dr. Pierce's "Purgative Pellets." Sold by druggists.

* * * * Young or middle-aged men suffering from nervous debility or other delicate diseases, however induced, speedily and permanently cured. Address, World's Dispensary Medical Association, Buffalo, N. Y.

"The light that lies
In woman's eyes,"

Is a ray of heaven's own brightness; but it is, alas! often dimmed or quenched by some wearing disease, perhaps silently borne, but taking all comfort and enjoyment out of life. That light of the household can be rekindled and made to glow with its natural brightness. Dr. R. V. Pierce's "Favorite Prescription" is a potent specific for most of the chronic weaknesses and diseases peculiar to women.

THE DRAFT HORSES OF FRANCE.—While some people in America call *all* horses imported from France Normans, *it is a fact* that there is no breed in France called by that name by the French people; the name, Norman, therefore, is *purely* American. The principal breeds of France are known as Percherons and Boulanais. The Percherons are the *most highly prized of all* French races, and *all* departments of France go to the Perche for stallions to improve their local breeds. The Percheron stud-book of France, published *under the authority of the French Government*, is the *only* stud-book of draft horses that *is, or ever has been*, published in France, and now contains the pedigrees of over 5000 animals. But some importers are offering certificates from France of Norman draft horses that may mislead people, who do not understand the French language, into believing these records of origin. Not one of them issued contains a pedigree. They are furnished at the request of American buyers by the secretary of one of the French Agricultural societies, who says there is no intention of publishing them in stud-book form, as they have no pedigrees and are of no value whatever. It is a well-known fact that what a man gives for a horse over from $500 to $800—the price of a good grade—is paid for purity of blood; and where the seller is not able to give the recorded pedigree of the animal sold as evidence of additional value, he has no right to ask it. With these facts before him, *no intelligent man* will buy a horse imported from France unless he is recorded with his pedigree in full in the Percheron Stud-Book of France.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
GEO. MCDOWELL—Tulare Co.
T. P. POWERS—Napa and Sonoma Cos.
A. J. HARE—El Dorado Co.
J. L. DOYLE—Mariposa Co.
W. J. FREEMAN—Yolo Co.
CHAS. LIST—Alameda Co.

SEWING MACHINES.—During 1886 there were made and sold in the United States 817,000 sewing machines. Of these, 647,000 were sold at home and 170,000 abroad. The machines exported brought $2,190,809, and they went to every country on earth.

DEERING "GIANT" MOWERS

MANUFACTURED BY

WM. DEERING & CO., CHICAGO, ILL.

Very Strong, Very Economical, Very Light Draft.

THE "GIANT" found no grass in the heavy cutting of last season (1886) which it did not successfully handle; in several instances it was taken into grass that had been given up as being uncutable by other Mowers cutting only 4 feet, at the same time the "GIANT" was cutting a 6-foot Swath.

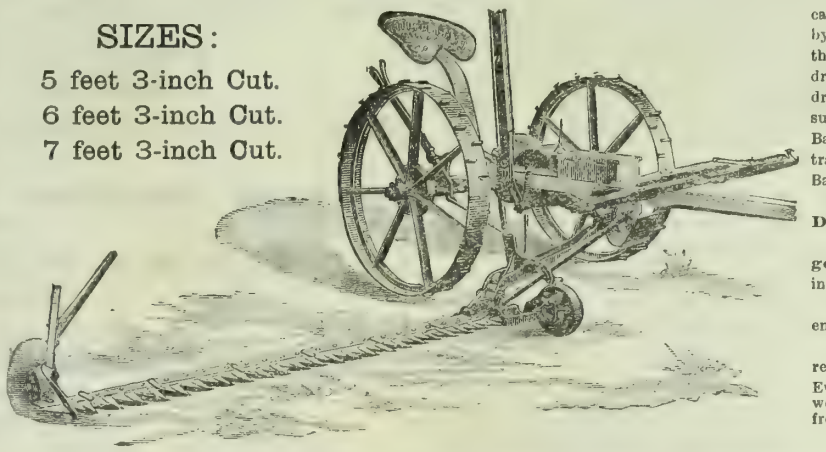
Intending purchasers of Mowers would consult their own interest by calling upon the local agent and examining into the merits of the "GIANT" before purchasing any other Mower. It is sold under a full guarantee, and intending purchasers are furnished the "GIANT" on Trial.

For doing an immense amount of cutting in a given time, and for leaving the grass in the very best shape for drying, the **Deering Front-Cut Giant Mower** has no equal. With its immense Cutter-Bar of 5 and 6 feet, it is well equipped to do almost **double** the amount of cutting that can be done by the common four-foot Mower, the only thing other factories have to offer to their customers. While the **Giant Mower** can do a giant's work, or about double that of the little Mowers, yet a team of ordinary horses draw it with ease day after day. In short, its draft is little if **any** greater than a common Mower. It is a continual source of wonder to farmers who see the **Giant** for the first time, how a Mower cutting such an **unusual** swath of 6 feet, can be pulled with so much ease by a small span of horses.

The whole secret of the wonderful light draft of the **Giant** Mower lies in the following four facts:

1st, and most important: The Cutter-Bar is supported by a strong **steel** spiral spring, so that the Bar does not rest heavily upon the ground, nor drag with all its heavy weight upon the ground. If it be borne in mind that about 40 per cent of the draft of a common Mower is caused by the dragging of the Cutter-Bar upon the ground, it will be no cause of wonder that the **Giant**, by saving this loss of power, can turn it to cutting almost double the width of swath done by an ordinary Mower. In addition to the economy of power, there are some incidental advantages. It is free from side-draft. There can be no side-draft if the Cutter-Bar does not drag upon the ground. Another advantage had by having a supporting spring, is that the driver is assisted in lifting the Bar by the spring. Still another advantage is the increased traction gained by throwing the weight of the Bar and Drag-Bar upon the wheels.

SIZES:
5 feet 3-inch Cut.
6 feet 3-inch Cut.
7 feet 3-inch Cut.



2nd. The **GIANT** pulls easy, because of its **High Drive Wheels.**

3rd. It pulls easy because of its **large** and perfect-fitting **gears.** In the Giant there is no gear-cutting nor gear-grinding. Every part fits perfectly.

4th. It pulls easy because the shafts are small where they enter their bearings.

We feel a just pride in the **Front-Cut Giant** for the remarkable record it has made since its first introduction. Every farmer who has written us speaks enthusiastically of its wonderful cutting powers, its light draft for two horses, and its freedom from side-draft.

The advantage of course in buying a Giant is **Economy.**

Ask the Deering Agent in your town, or address us for Special Circulars describing our machines in detail, with Illustrations.

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JAMES LINFORTH,

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GENERAL AGENT FOR PACIFIC COAST FOR FOLLOWING SPECIALTIES:

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BUTCHER MACHINERY:

Draw-Cut Choppers,
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"VICTOR" and "NILES"

SORGHUM and SUGAR MILLS,

AND

COOK EVAPORATORS.

Horse Powers, Wood-Saw Machines.

STEAM ENGINES and BOILERS,

From 1½ Horse Power upward.

Please Send for Illustrated Price List of such goods as you require.

☞Delivery made from San Francisco or factories.

PUMPS FOR IRRIGATION AND RECLAMATION

Steam Engines, Horse Powers & Wind Mills.



Complete Pumping outfits—all sizes—for every purpose. The **latest, best** and **cheapest.** If you need any thing in this line, write to

BYRON JACKSON
625 6th St. San Francisco.

STOCKTON COMBINED HARVESTER & AG'L WORKS

Stockton, Cal.

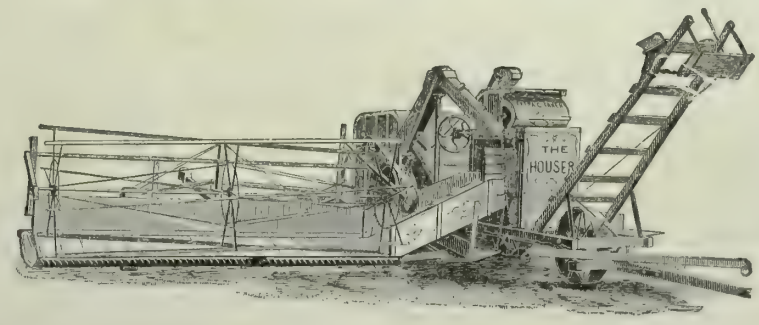
The only Manufactory that makes a Specialty of Building

COMBINED HARVESTERS.

PULL and PUSH, BELT and GEARED.

Houser, Minges, Shippee, and Powell

THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.

THE BEST KNOWN AND MOST POPULAR.

300 in Field Use and No Failures.

NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 20th. Call at Works. Send for Circulars. Address

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

CANTATAS FOR FLOWER TIME!

Teachers of Juvenile Singing Classes do not need to be told of the intense interest and enthusiasm which attends the bringing out of a new CANTATA. The following are new, bright, pretty and easily given. Commence in time to prepare them.

VOICES OF NATURE; operetta; N. B. Sargent.

FOREST JUBILEE BAND; N. B Sargent.

NEW FLORA'S FESTIVAL; Bradbury. Arranged by J. C. Johnson.

MERRY COMPANY, or Cadets' Picnic; Collin Coe.

Price of each book, 40 cents, or $3.60 per dozen.

The first two books are by a nature and music-lover, who fills them with very sweet songs of birds, flowers, insects, etc. Flora's Festival, doubled in size, and with minute directions, will surely be a success, as will, in another way, the "MERRY COMPANY."

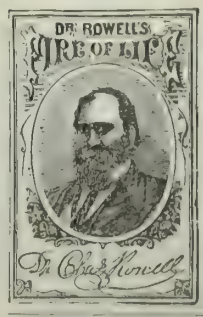
Our new edition of **VOICES OF PRAISE** (40 cts., or $4.20 per doz.), by Rev. C. L. Hutchins, is cordially commended to all who wish a **Sunday School Song Book** of the highest character.

Schools, Academies and **Seminaries** are always safe in adopting the carefully compiled **School Song Books** of Ditson & Co. We recommend for the higher schools, **SONG GREETING** (60 cents) and **ROYAL SINGER** (60 cents); for grammar schools, **SONG BELLS** (50 cents); and for primary schools, **GEMS FOR LITTLE SINGERS** (30 cents).

☞Any book mailed for retail price.

OLIVER DITSON & CO., Boston.

C. H. DITSON & CO., - - 867 Broadway, NEW YORK.



A MAGIC CURE

—FOR—

Rheumatism, Neuralgia, Pneumonia, Paralysis, Asthma, Sciatica, Gout, Lumbago and Deafness.

Everybody should have it.

G. G. BURNETT, Ag't
327 Montgomery St., S. F.

Price, $1.00. Sold by all Druggists. ☞Call and see

DR. CHAS. ROWELL.
OFFICE—426 Kearny St.
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DYE WORKS,

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All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.

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HEALD'S BUSINESS COLLEGE,
24 Post St. S. F.
Send for Circular.

Shorthand, Typewriting, Penmanship, Bookkeeping.

FRESNO COUNTY.

BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R. towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

THE WATER RIGHTS

Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied for colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. One-half already sold. The cheapest Colony land in the county, on very easy terms to actual settlers.

☞For further particulars call on or address

O. J. WOODWARD, FRESNO, CAL. L. SHARPE, SELMA, CAL.

FOR SALE!

A Fresno County RAISIN VINEYARD.

ALFALFA and GENERAL FARM.

800 Acres.

Under a fine state of cultivation and irrigation. Fences, buildings, ditches, levees and checks built in the most substantial manner. Soil unexcelled, as growth of products show. Located near one of the most thriving towns on the S. P. Co.'s Railroad. **Two hundred and twenty-eight acres in vines,** from one to six years old; all have been planted and cultivated by the most experienced vine-growers, and will soon be a prominent Raisin Vineyard of Fresno County. About 200 acres in Alfalfa. The rest of the land is now in grain crops. The farm is well stocked with horses, mules, cattle and hogs. This is a good, substantial interest-paying investment with a great future Will be sold at a very reasonable price, with easy terms of payment if required. For full information and map, apply to

ALBERT E. CRANE.

410 Montgomery Street, San Francisco, Agent for sale of all kinds of Country Property.

Choice Homes in Contra Costa.

Improved Places for Sale near Walnut Creek.

One lot of 11 acres, with house of six rooms, pantry, milk-room and summer kitchen, in good repair; barn, chicken-house, etc., and fine orchard of various fruits. Situated within 1½ miles of the village of Walnut Creek, this offers an almost ideal home to those desiring a sheltered spot in an almost perfect climate. Price, $2000.

Also, 12 acres close by the same village, half set to Zinfandel grape-vines, just coming into bearing, with four-room house—hard-finished and nearly new—stable, etc. Price, $2300. Wells of excellent water on both places.

For further information, address

H. F., Box 2361, S. F.

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION. 401 California St., San Francisco.

20-ACRE TRACTS.

Fine, rolling, cleared, reddish-brown land, under cultivation in the Shasta Fruit and Raisin Colony. Twenty acres for $500. Terms: $200 cash, and balance in installments to suit purchaser, at 8 per cent per annum. Any tract will be set in raisins or fruit and brought to bearing by proprietor of colony, if desired Send stamp for circular, and state how you wish the installments. GRIFFIN BROS., Cottonwood, Shasta Co., Cal.

FARMS FOR SALE!

—BY—

GRIFFIN BROTHERS,

Cottonwood, Shasta County, California.

TITLES ALL GOOD OR NO SALE.

We have 40 inches of rain annually, hence need no irrigation and have no law-suits about water rights. Plenty of wood and water. Good schools, good society, cheap land, the best of soils, and local markets for all products. No snow, no blizzards, no black gnats, no damage from north winds, no chills and fever.

No. 49.

$3000—A well improved 160 acres, 10 miles west of this town on Cottonwood Creek. On public road. New dwelling, only 10 rods to school house; no hills. Forty acres cleared; some good bottom land. U. S. title. Terms cash. Crop goes in.

A FINE RURAL HOME. No. 67.

$25,000.—1035 acres 2 miles from Cottonwood, and fronts on a never-failing stream. About 500 acres of the finest quality of dark, deep, alluvial land that will produce corn, alfalfa, wheat, vegetables or crops of any kind; has yielded 7000 bushels of wheat in one season, besides other crops. The balance of the farm is rolling woods-pasture. On the bottom land are two orchards and vineyard, 3 dwelling houses, large barns and granaries that would cost $5000. Several good wells of water. Splendid location for healthfulness and picturesque scenery. All the farming machinery and household furniture; 19 good horses, including a young stallion; 19 head of cattle, mostly cows; and 40 hogs; also sufficient hay and grain to seed the farm goes in with the farm Part may remain against the farm if purchaser so desires.

No. 68. A SUBURBAN HOME.

$7200.—240 acres on Cottonwood Creek, 2 miles from town; all well fenced and cross-fenced; all good land under cultivation; one half is first-class bottom land; good buildings; terms, half cash.

No. 71.

$3000—800 acres rolling land, finest kind of pasture. Wells can be had for stock water.

No. 70.

$10 per acre—160 acres, perfectly level, gray, second bottom land; 40 acres clear; balance has some brush and oak, but easily cleared. One of the very best locations in Cottonwood valley for Fruits of any kind without irrigation. Terms cash.

No. 73.

Four sections of the best stock pasture land. Rolling hills all covered with grass, on which cattle graze and do well the year round. Plenty of water for stock. This place will be sold very cheap if application is made soon. Title perfect.

No. 74.

$10 per acre.—120 acres good vine land, nearly all cleared, none too rough for work, good house and everlasting spring. U. S. patent. Terms cash.

No. 75.

$10 per acre.—700 east of and on the Sacramento river. All under a good, new wire fence. A never-failing creek crosses the land and furnishes abundance of stock water the year round. About 300 acres level, of which 80 are the finest kind of river bottom land. This bottom land has been under cultivation for several years and produces excellent vegetables.

☞Call on or address

GRIFFIN BROTHERS.

Cottonwood Valley, Shasta Co., Cal.

GRAND AUCTION SALE!

—BY—

EASTON & ELDRIDGE,

AUCTIONEERS, OF SAN FRANCISCO,

—AT—

TEMPLETON, SAN LUIS OBISPO CO.,

—ON—

THURSDAY, FRIDAY and SATURDAY, April 14, 15, & 16, 1887,

—OF THE—

Paso Robles, Santa Ysabel, Eureka and Huer Huero

RANCHOS!

Also, TOWN LOTS in the Rapidly Growing Village of

TEMPLETON!

And 5, 10 and 20 ACRES, and Larger Subdivisions,

BY ORDER OF THE

WEST COAST LAND COMPANY

(A CORPORATION).

Will Sell Without Reserve, Property Described as Follows:

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

THE EUREKA RANCH,

Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

All lying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

AT PUBLIC AUCTION

THURSDAY, FRIDAY and SATURDAY, April 14th, 15th, 16th,

AT 12 O'CLOCK, NOON, EACH DAY.

These are all Agricultural and Fruit Lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara County, and require

NO IRRIGATION!

☞Title United States Patent, and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments at 2, 3, 4 and 5 years; interest, 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

An additional charge will be made of $5 for the deed in sale of town lots, and $15 in other cases for expenses of sale, including making and recording all papers.

Schedule price of ranch subdivisions average $20 an acre; and for 5 to 12-acre lots, $50.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo.

The Above Auction Sale is made under the Auspices of the

PACIFIC COAST LAND BUREAU!

(A CORPORATION)

PRINCIPAL PLACE OF BUSINESS, OPP. PALACE HOTEL,

No. 618 Market Street, and 15 and 17 Post Street, San Francisco.

Sub-Agencies in Each County Seat of the State.

President .....WENDELL EASTON | Treasurer.....ANGLO-CALIFORNIAN BANK
Vice President & Gen'l Manager.....GEO. W. FRINK | Secretary.....F. B. WILDE

EASTON & ELDRIDGE, Auctioneers.

Parties wishing to Inspect said Lands, with a view to purchasing at the Auction, or any of the Company's Lands at Private Sale, will be shown the property free of charge by applying at the Company's Office in Templeton.

$6.00—AN EXCURSION TRAIN—$6.00

Will leave foot of Fourth and Townsend streets, San Francisco, April 13th, at 8:30 A. M., stopping at all way stations, where tickets can be secured either at station or on train, and arriving at Templeton at 5:30 P. M. Round-trip tickets, $6, good until MONDAY, April 18, 1887. Usual fare one way, $8

Maps of all the ranch subdivisions of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands, with a new descriptive catalogue, will be sent free on application.

C. H. PHILLIPS, Manager, Templeton, Cal.

And for further particulars, catalogues, etc., address, **PACIFIC COAST LAND BUREAU**, or EASTON & ELDRIDGE, Auctioneers, 618 Market street, opposite Palace Hotel, San Francisco.

LOS ANGELES LAND BUREAU, 20 West First street, Los Angeles.

PACIFIC COAST LAND BUREAU, 826 Fifth street, San Diego.

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List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MARCH 29, 1887.

360,131.—FRUIT JAR—D. E. Ashby, S. F.

360,197.—STOVE—Mary E. Burnham, Santa Barbara, Cal.

360,299.—CHURN—O. Hilton, S. F.

360,309.—SPRING SCALES—L. Langdon, Stockton, Cal.

360,165.—FRUIT-JAR COVER—L. P. R. Le Compte, Portland, Ogn.

360,232.—ANIMAL EXTERMINATOR—W. H. Leininger, Salem, Ogn.

360,361.—GRAIN CLEANER—L. Prevost, Champoeg, Ogn.

360,050.—SHEAVE BLOCK—J. H. Redmond, S. F.

360,328.—LAMP EXTINGUISHER—J. A. Scharlin, Santa Barbara, Cal.

360,118.—ADDING MACHINE—B. F. Smith, Sacramento, Cal.

360,185.—CHROMATIC PRINTING APPARATUS—Wheelan & Schurch, S. F.

360,077.—RAILWAY SIGNAL—Geo. H. Wright, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

KINDERGARTNERS AT SUTRO HIGHTS.—A very pleasant affair was the visit of S. F. kindergartners to Sutro Hights, last Saturday, in response to an invitation from Adolph Sutro. Over 60 ladies—including officers of the Golden Gate Association and Silver-Street Society, principals and assistants of kindergartens under these organizations, and members of the California Kindergarten Training School—were welcomed by Mr. Sutro, escorted through the beautiful grounds, and made partakers of an elegant luncheon. After the repast, Mrs. Cooper, president of the Golden Gate Association, returned the thanks of the association to Mr. Sutro for the delightful day. Mr. Sutro responding, spoke of the deep interest he felt in the kindergartens, and gave warm encouragement to those engaged in the work. The teachers of the Normal Training Class also expressed their grateful appreciation of his hospitality, and still more of the generous aid that Mr. Sutro had given to the free kindergarten work from the outset.

TRAVELING AGENTS WANTED.

We want a few enterprising, active, faithful men to visit different parts of California and the neighboring States, making the merits of our journals better known to the many people who would be helped thereby, taking orders and receiving payments. Here is a good opportunity to see the country, promote a useful enterprise, and, at the same time, earn a good, honest living. Send name, age, business experience, and good references. Apply to Dewey & Co., 220 Market St., S. F.

P. S. Readers of this notice can help our common cause by informing persons, likely to become good agents, of this chance.

CALIFORNIA POULTRY ASSOCIATION.—Pursuant to the call for their regular annual meeting, Secretary Marsh, and Messrs. Cousens, Everett, Keesling, Lund, McBirney, McFarling and Newhall, of the California Poultry Association, gathered at 40 California street, San Francisco, on Wednesday of this week. Wanting a quorum, the members present held an hour's informal converse, and then adjourned to meet again, at the same place, on Wednesday, May 4th, at 11 o'clock, when it is hoped that there will be a full attendance.

CHANGE IN ADDRESS.—We call the attention of our readers to the change in address of O. J. Albee, the well-known poultry dealer of Santa Clara county, to Lawrence, a new postoffice recently established near Mr. Albee's place.

To Every Pump Maker,

Owner! Runner! Agent!

If there is ANY PRACTICAL QUESTION concerning ANY APPLICATION or any ADJUSTMENT of ANY KIND of a PUMP which is not answered in MR. ROBERT GRIMSHAW'S PUMP CATECHISM,* we would like to have it for answer in the next edition or volume.

The Author will answer any such question in our columns, if addressed in our care, by a regular mail subscriber to our paper. "Catch" questions invited, if the have a practical bearing.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price $1).....$0.25
2.—World's Cyclopedia, 794 pages, 1250 illustrations; (exceedingly valuable).....50
3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt.....50
4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated.....25
5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations.....05
6.—To NEW Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
9.—Pacific Coast and Eastern Dailies, Books and Periodicals, *except special publications*, we can usually give 10 to 15 per cent off advertised retail rates.
10.—March of Empire, by Mallie Stafford.....25
11.—Life Among the Apaches, 322 pages, stiff cloth.25
12.—$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application.25
14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.).25
15.—European Vines Described, 63 pages.....05
19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable.....50
23.—Architecture Simplified, 60 pages.....15
24.—Mother Bickerdyke's Life with the Army; patriotic and ably written; 166 pp., cloth, $1.00.....50
25.—Ropp's Easy Calculator, cloth, 80 pp.....25
26.—How to Tell the Age of a Horse.....05
27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, $3).....1.00
Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present).25

NOTE.—The cash must accompany all orders. Addres this office, No. 252 Market St., S. F.

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Mixes instantly with Cold Water.

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Price, $1.25 per Imperial Gallon.



Sold in iron drums containing 5 imperial gallons, equal to nearly 6 American gallons. One gallon mixed with 60 gallons of cold water will dip thoroughly 180 sheep, at a cost of less than one cent each; easily applied; a nourisher of wool; a certain cure for scab.

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Poisonous!

Mixes instantly with water; prevents the fly from striking. In a 2-pound package there is sufficient to dip 20 sheep, and in a 7-pound package there is sufficient to dip 100 sheep. Price, **17 cents** per pound.

CATTON, BELL & CO.,
(Successors to Falkner, Bell & Co.)
406 California St., S. F.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Mar 31-Apr 6.	Portland. Rain.	Temp.	Wind.	Weather.	Red Bluff. Rain.	Temp.	Wind.	Weather.	Sacramento. Rain.	Temp.	Wind	Weather.	S. Francisco. Rain.	Temp.	Wind.	Weather.	Los Angeles. Rain.	Temp.	Wind.	Weather.	San Diego. Rain.	Temp.	Wind	Weather.
Thursday	.45	59	S	Th	.00	66	S	Cy.	.00	70	S	Fr.	.00	60	SW	Fr.	.00	74	W	Cl	.00	62	Nw	Cl.
Friday	.55	47	W	LR.	.00	71	S	Cy.	.00	65	SW	Cl.	.00	60	W	Fr.	.00	78	W	Cl.	.00	63	Nw	Cl.
Saturday	.59	47	Nw	Fr	.00	67	N	Cl.	.00	66	Nw	Cl.	.00	64	Nw	Cl.	.00	75	SW	Fr.	.00	65	SW	Cy.
Sunday	.02	52	NE	Cl	.00	68	N	Cl.	.00	63	Nw	Cl.	.00	67	SE	Cy.	.00	68	W	Cl.	.00	64	SW	Cl.
Monday	.01	53	S	LR	.00	65	W	Fr.	.00	66		Cl.	.00	62	W	Cl.	.00	64	W	Cy.	.00	64	W	Fr.
Tuesday	.21	59	S	Cy.	.00	59	S	Cl.	.00	66	w	Cl	*.—	61	Nw	Cl.	.00	71	W	Cl	.00	61	W	Cl.
Wednesday	.00	64	Nw	Cy.	.00	63	S	Cy.	.00	61	S	Cy.	.00	61	SE	Cy.	.00	63	S	Fr.	.—	—	—	—
Total	1.83				00				.00				*.—				.00				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature, Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

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Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

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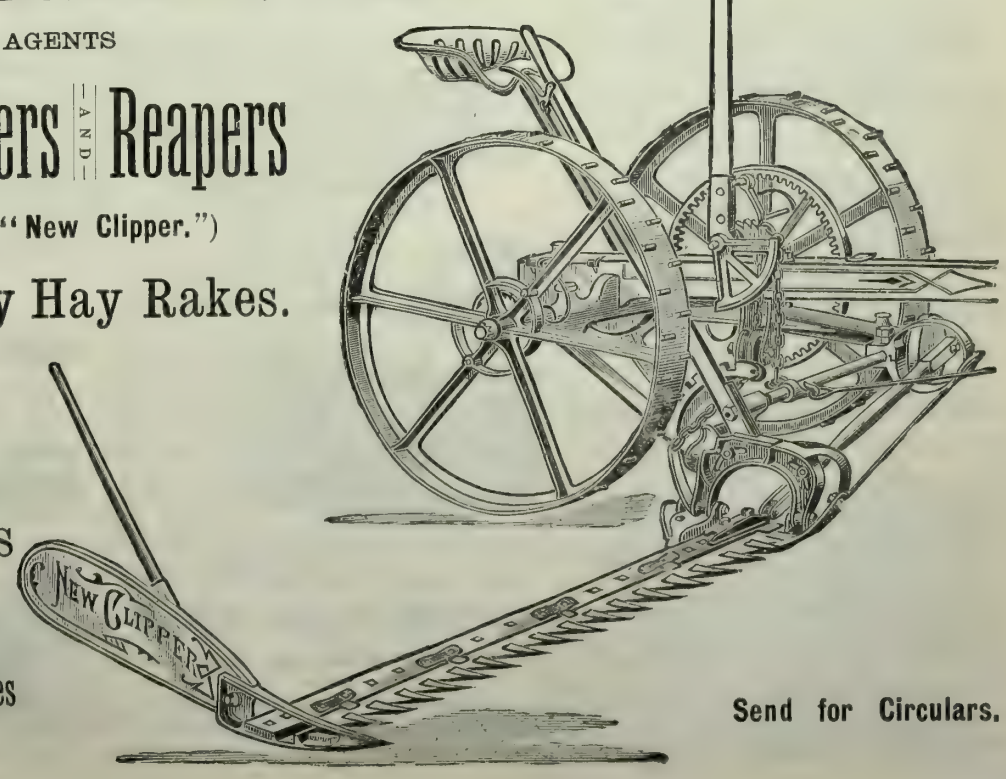
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An Exceedingly Handsome

Thoroughbred Jersey Bull Calf,

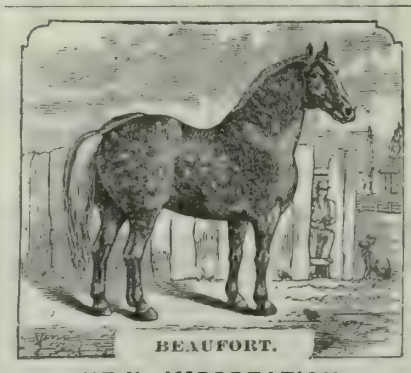
One year old last December; is registered in American Jersey Cattle Club. Came from the best strain of milk and butter stock. Price only $75. Also THOROUGHBRED JERSEY COW, registered in Pacific Coast Jersey C. C., 7 years old; an excellent milker. Apply to

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NORMAN STALLIONS.

Theodore Skillman has just arrived from France with the choicest importation of Norman Stallions that has ever reached the Pacific Coast. Mr. Skillman has selected these horses from the best in France, with a view to the improvement of draft horses on this Coast. They are young and sure to suit the tastes of intending purchasers as regards color, etc., a number being coal-black. He has also on hand some Imported French Coach Stallions. These horses are now very popular in the East and have long been the favorite carriage horses of France. Their merits speak for themselves. Come and inspect this rare collection of horses and be convinced that they are the best ever seen on this Coast.

☞Catalogue for 1887 sent free on application.

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The Leading Horse Farm of the Pacific Coast. Three carloads of **Norman-Percheron**



Thoroughbreds, all ages, both sexes, just received from M. W. Dunham's Great Nursery, Wayne, Du Page Co., Ill. Graded stock also on sale. Large assortment to select from. Any horses sold by me are guaranteed as represented. You can do as well with me, if not better, than elsewhere. Largest and best. Weights as high as 2200 pounds. Some of my horses are on exhibition at Knickerbocker Stables, San Jose.

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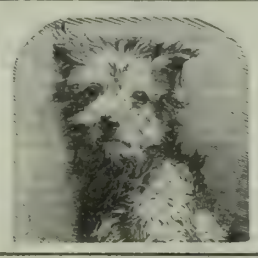
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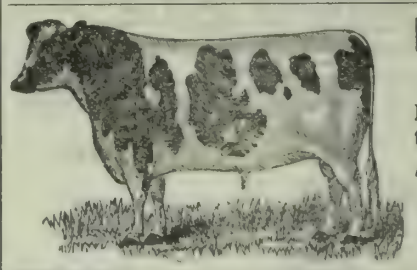
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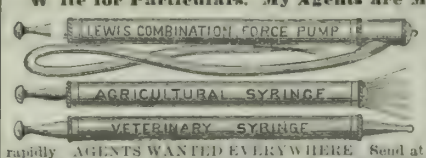
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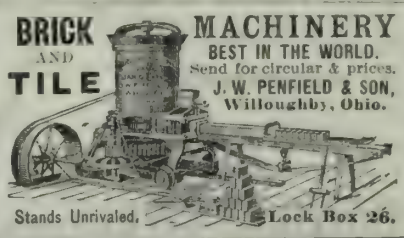
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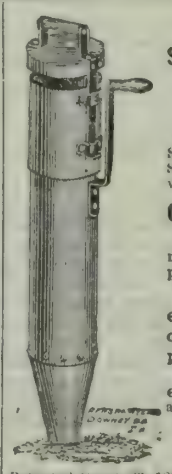
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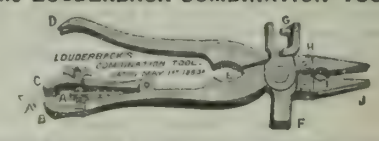
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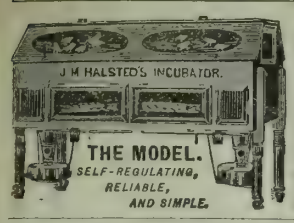
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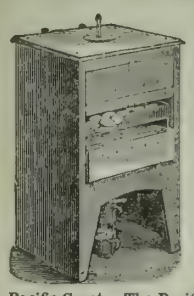
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Price from $20 up. Model Brooder from $5 up.
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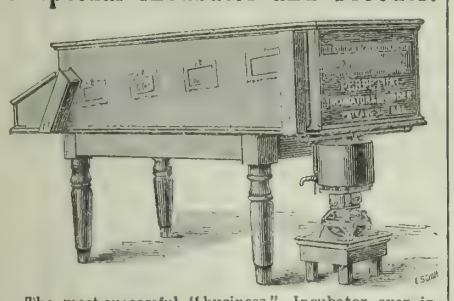
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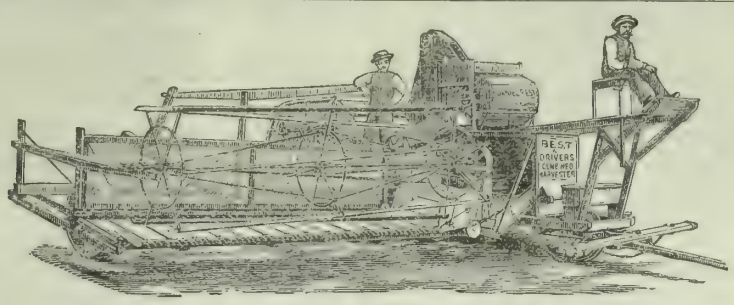
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For 1887.

—MANUFACTURED BY—

DANIEL BEST, San Leandro, Cal.

Standard size, 14-foot cut. Cylinder, 30-inch. Separator, 41-inch. Belt and Geared. Will make any size ordered.

These machines are made of the best material. Frame of Separator is made of hard wood and all timber used in their construction is thoroughly kiln dried.

HAS STEEL SHAFTING AND GEARING.

The Gearing is composed mostly of Spur Wheels, and so compactly arranged that should the frame of the machine weave because of the unevenness of the ground, there would be no danger of the gearing getting out of line, causing it to cut or bind in the boxes, which occurs with other Harvesters in which the gearing is more scattered.

We have succeeded in getting that combination of Lightness, Adaptability and Strength which is the result of thought and skill, taking from some parts and adding to others, making our Harvester from four to six horses lighter draft, and yet retaining as great strength as the heavest machine manufactured. The Header is very rigid and so balanced and hinged that it is no trouble to save down and tangled grain. A boy ten years of age can manage it.

I wish to call your attention particularly to the separating qualities of my Harvester. The agitators are so arranged that the grain is completely shaken from the straw, and my new AUTOMATIC GOVERNOR on the fan completely governs the blast on the shoe, so that at any speed which the machine travels, the blast will be the same, making a saving of a great amount of grain that would otherwise be blown over the riddles; but, instead, will go into the sack, which in a season will more than pay the harvesting expenses, over and above any **Combined Harvester** that has not the **Automatic Governor.**

Each **Harvester** has one of my celebrated **Grain Cleaners** attached, which needs no recommendation from me, as the grain growers of California can testify as to its merits and superiority over other Cleaners on the Coast.

Every machine is thoroughly tested before it is allowed to leave the factory, so there will be no trouble or vexatious delays in the field.

They cut, thrash clean, and sack grain for less than $1 an acre, against $3.50 an acre the old way of heading and thrashing. They require three to four men and fourteen horses for a 14-foot cut, and an additional horse for every additional foot cut.

Please call at my Works, near the Depot, San Leandro, and examine our Harvester. I have sample machine belted and attached to the power of the factory, and will take pleasure in showing how it works, so that you can become familiar with the working of the machine before taking it into the field.

I also desire to call your attention to my latest Improved Cleaners that I make for any and al Combined Harvesters. The great success I have had with my Cleaners, made to run with Thrashing Machines, as well as the satisfaction given by my Fanning Mill and Warehouse Mill, induced me to design and build a Cleaner, especially for the Combined Harvesters. I make the following sizes, viz.:

45-inch for 18-foot cut and over.
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This Cleaner is the most successful Combined Harvester Cleaner ever offered to the public, and I can guarantee it to be the most perfect Cleaner now in use. I have made a great many valuable improvements that have never yet been introduced, the merits of which will be quickly understood and highly appreciated by those who have use for the Cleaner. It is made strong and durable, and of such size and capacity that it will easily handle and thoroughly clean the grain as fast as any Combined Harvester will thrash it, and it has proven to be the only Cleaner, mounted on Harvesters, that will thoroughly clean foul grain and make it merchantable.

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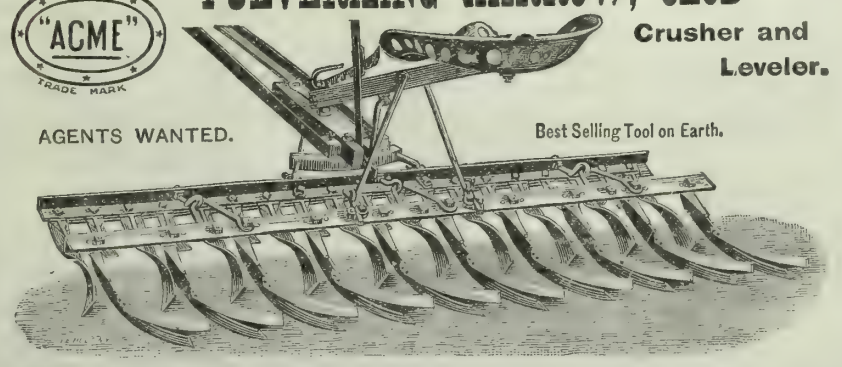
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We make a variety of sizes from 3 to 15 feet wide.

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Patent Protecting Cloth, equal to glass sash, at tenth cost on cold-frames, hot-beds, etc. Promotes hardy, rapid growth; don't shrink or decay rapidly. Retails at 3, 6 and 9 cents per yard, 36 inch wide. Cheap waterproof covers for wagons, hay caps, stacks and all agricultural purposes. Circulars, samples free.
U. S. WATERPROOFING FIBRE CO., (Limited) 56 South St., N.Y. Mention this paper.

S. F. Market Report

NOTE. Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 6, 1887.

The past week witnessed continued activity in cereals at hardening prices, the absence of rains contributing no little to influence prices. The warmer weather put garden stuff well along, causing many seasonable varieties to mature rapidly. The same remarks apply to small fruits. The European wheat market has ruled weak, but to-day is steadier as reported by private cables. Semi-public cables are as follows:

LONDON, April 6.—Cargoes off coast, nothing offering. Cargoes on passage and for shipment, buyers hold off, hoping to obtain some concessions. Cal. wheat off coast, 39s. Cal. wheat just shipped, 37s 9d. French country market, firm. Liverpool wheat, spot, weaker. Liverpool wheat, Cal, 7s 6d@7s 9d.

Foreign Review.

LONDON, April 4.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: English wheat is tending lower in London, and in a number of provincial markets there has been 6d to 1s decline. The feeling of the trade is one of extreme depression. Sales of English wheat during the past week were 53,689 quarters at 33s 3d, against 61,240 quarters at 30s 5d during the corresponding week of last year. The market for foreign wheat is quite demoralized. The available supplies are already more than ample for the remainder of the cereal year, while stocks at ports are constantly increasing. The week's receipts of flour at London are the largest on record for a single week, amounting to 88,037 sacks of American and 15,596 sacks of English. Four cargoes of wheat arrived; 3 were withdrawn and 1 was sold. To-day trade was at a standstill. Quotations were nominal and the dealings that were made were at 6d decline. Flour was depressed. Quotations were irregularly lower. Corn was quiet. Russian oats rose 6d. Linseed was 5d higher.

Eastern Wheat Markets.

NEW YORK, April 3.—The wheat market has been stronger on favorable reports regarding the crop prospects of California, as well as several Western States. These, together with the liberal export movement, gave a firmer tone to the views of holders. Spot closed ⅛@1c higher, and futures ⅛@¼c higher for the week, as follows: April, 91¼; May, 91⅝; June, 91¼; July, 90½; August, 89⅝; and September 90¼c.

NEW YORK, April 6 –12 M.—92½@93c for cash, 91c for April, 91¾c for May, 91⅝c for June, 90½@90¾c for July and 89⅜@90c for August.

CHICAGO, April 6—12 M.—77⅜c for cash, 79⅝c for April, 82⅞@83c for May, 81⅜c for June, 80½c for July and 79⅝c for August.

Eastern Wool Markets.

NEW YORK, April 3.—Business last week was dull. Manufacturers do not operate beyond their urgent wants. Holders desire to sell but do not propose to give way in prices. The sales of the week include 258 bags scoured California at 52½c; 5000 lbs scoured pulled at 54c; 3000 lbs Territory at 20c; 20,000 lbs Montana at 21c; and 10,000 lbs Montana, 100,000 lbs Eastern Oregon and 2000 lbs scoured Territory on private terms.

Philadelphia—The market is dull, with little desirable wool on sale, except Territorial and fine fleeces. Buyers' views are about 1 cent under those of holders, and sales slow. Among the sales were 80,000 lbs California defective Fall at 14c; 1000 lbs Territory medium at 23c; 3000 lbs unwashed coarse black Territory at 12c; 10,000 lbs same command 22c; 25,000 fine Territory on private terms.

Boston—The market records lower prices, but dealers are looking for better prices on spot wool, because of the increased cost of bringing wool across the continent under the Interstate Commerce law. Among the sales were 210,500 lbs Territory at 17@25c; 115,000 lbs California Fall at 16@17c; and 33,000 lbs California Spring and Oregon on private terms.

BOSTON, April 4.—The wool trade for the past week continued quiet. The sales have been 1,627,100 pounds. This shows the manufacturers are as backward as ever, and that the present weak prices at which desirable wools are offered are not proving as great an inducement for them to take hold as might be supposed. The position of wool does not warrant an advance at this time, with large supplies of new wool near at hand, and the stocks of many grades in large supply on the seaboard. The only feature of prominence in the market is the unsettled feeling caused by an advance in freights. California wool will cost, laid down, 5c per lb more than at present, when the new rates go into effect. The product of other States will also cost higher in proportion. The only exception at present seems to be Texas wool, which will be benefited rather than hurt by the advance. At other points there is great uncertainty everywhere in regard to this matter, and it is difficult to determine what the outcome will be. California wool is very dull, with sales of 1500 lbs Fall at 16@17½c; and 8000 lbs Spring on private terms. In Western unwashed and unmerchantable fleeces there have been sales of 20,000 lbs fine and medium at 19@20c; 2000 pounds medium at 25½c; 15,000 lbs medium at 23c, and 9000 lbs on private terms. Sales include 25,000 lbs at 35 to 60c; 14,000 lbs at 45@58c; and 99,700 lbs on private terms.

New York Hop Market.

NEW YORK, April 3.—There is not the slightest change in the appearance of the market. Few goods are being sold, and those few go at rather low prices. Pacific Coast crop 1886, best, 20@22c; do common to good, 16@19c; do 1885, good to prime, 8@10c.

California Products at New York.

NEW YORK, April 3.—Seeds—Considerable interest has developed for California yellow mustard, resulting in sales of about 2000 bags at 3¾@4c. At the close 4c was freely bid, but holders have advanced their views to 4¼@4½c. This movement has been influenced by the advance in freight rates.

Dried Fruit and Canned Goods East.

NEW YORK, April 3.—Canned Goods—The market is rather quiet, though there is more doing in corn and peas. Tomatoes are slow, though steady in price. The stock of peaches in Baltimore is now estimated at between 13,000 and 15,000 cases. California canned peaches, $2.50@2.75; pears, $2.50@3.25; plums, $1.85; grapes, $2; apricots, $2.10.

Dried Fruit—For raisins, the demand shows a moderate increase, and the tone of the general market is better. Two-crown loose Muscatel quoted at $1.20@1.30; London Layers, $1.50@1.55; California Londons, $1.50@1.80; do two-crown loose, $1.25. Prunes—Turkish has had a fair jobbing demand at 4⅝c. Citron, quiet at 17@17¼c.

Crops at the East.

CHICAGO, April 3.—The *Farmers' Review* for this week says: Reports from the winter wheat-growing States are still of favorable tenor. The majority of the returns indicate that the fall-sown grain is in full average condition. The weather continues dry in Missouri and Kansas, and there is a great lack of moisture, particularly in the last-named State, but as yet the crop has not been seriously injured on this account over any widely distributed area. In Michigan and Wisconsin large portions of the State are still under snow.

California Fruit in Chicago.

CHICAGO, April 2.—Oranges are meeting with a very fair demand. Fruit of choice quality is firm. California Bright Riverside, $3@3.50; Santa Ana, $3@3.50; Los Angeles, $2.75@3.25; Navel, according to quality, $5@6; Duarte, $3@3.50; San Gabriel, $2.75@3; Blood, fancy, $5@7.

Dried fruit is rather quiet and dull. The outside trade is reported quiet and the demand from jobbers and the usual buyers is in consequence small. Most all kinds of fruit are in limited supply in the general range. California dried fruits were quoted steady, and former prices are obtainable, but the supply has been reduced until it is now quite small. Prunes, French, per lb, 8@9½c; plums, pitted, 10@11c; peaches, halves, 11@12½c; do halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London Layers, 20-lb boxes, per box, $1.40@1.50; loose Muscatel, per box, $1.20@1.30; California Layers, per box, $1.25@1.35.

London Wool Market.

LONDON, April 4.—At the wool sales to-day the attendance and bidding were good. Full prices were generally obtained.

Local Markets.

BAGS—The market is very weak, with sellers anxious. Sales of large parcels are reported to have been made as low as 5½@5¾c for standard Calcuttas. They job at 5¾@6c for June-July delivery.

BARLEY—The strong advancing market reported in last week's issue continued the past week with a higher range reached. The demand for consumption is quite large. On Call, prices have been gradually creeping. The following are to-day's sales:

Morning Session: Buyer season—100 tons, $1.09½; 400, $1.09¾; 600, $1.09½; 600, $1.09; 100, $1.08¾; 400, $1.08¼. Seller 1887—400 tons, $1.02; 300, $1.02½; 100, $1.02¾; 100, $1.02½ ₩ ctl.

BUTTER—A steadier tone manifests itself. Considerable has been packed so as to fill distant orders. The demand is improving. Dairymen are reported to be packing.

CHEESE—The market is steadier, with apparently the bottom having been reached. The demand is quite large for the season.

EGGS—The market is stronger but no higher, owing to the heavy supply of Eastern. The stock of Eastern here is 100,000 dozen, and to arrive 300,000 dozen. As higher freights went into effect last Tuesday, no further shipments need be looked for at present. The freight from the East is now six cents per dozen.

FLOUR—The market is very strong at another advance.

WHEAT—The market is strong, with further advances established. As high as $1.70 was bid for No. 1 by a shipper to day. The market appears to be well in hand. On Call, transactions continue free, with a large short interest reported. Sales to-day are as follows:

Morning Session: Spot season's storage paid—200 tons, $1.75. Buyer season—200 tons, $1.80½; 200, $1.81½; 300, $1.82; 100, $1.82½; 100, $1.82¼; 100, $1.82⅜; 1000, $1.82½; 100, $1.82¾; 100, $1.82⅞; 200, $1.83. Buyer 1887—200 tons, $1 92½; 1700, $1.93. May—100 tons, $1.79½; 100, $1.79⅝; 200, $1.79. July—100 tons, $1.78¾. Seller 1887—3900 tons, $1.70; 100, $1.70⅛; 100, $1.70¼; 100, $1.70⅜; 1500, $1.70½; 100, $1.70⅝ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The local wheat market has held to strong prices throughout the week. The strength of the market is due to continued dry weather and the stock of available wheat well in hand. The dry weather creates considerable uneasiness. On lowlands, summer-fallow land, and irrigated land, crops are looking well, but on late sown land they are looking bad. While it is hardly likely that the latter can be greatly benefited, except in favored districts, by rains, the rest would be made to yield a good average crop. The stock of wheat in the State is variously estimated, but it is safe to say that it does not exceed 200,000 short tons. The bulk is held against short sales on Call.

Advices from Washington Territory and Oregon are favorable to the wheat crops, but still rains are wanted in several large agricultural sections.

Eastern advices report the visible supply of wheat being rapidly reduced by both the local and export demand. Crop advices taken as a whole are favorable.

European crop advices are said to be more favorable in England, France, and Germany than at this time last year. As the stock held is below an average, with the outlook favorable to a less carryover than usual, it is not at all likely that an increased crop yield will be materially felt.

It is reported that a leading miller has on the way from Kansas 200 carloads of wheat. If this is true, the quality of the brand is not likely to be improved, as Western wheat is not as good as Californian.

The demand for barley is reported active, chiefly for consumption. The high price ruling for oats, together with poorer pasturage, have caused a freer feeding of barley. The number of horses used in railroad building has largely increased. Advices from the large barley districts, while not unfavorable to the growing crop, still show that rains are sadly wanted, and if held off too long, no doubt many fields will be ruined.

Oats are scarce and high, with holders offering sparingly under the impression that a still higher range of values is not at all unlikely at an early day.

Both rye and buckwheat are dull but steady.

Corn is stronger, with a better demand ruling. The higher freight rates from the East are favorable to holders. The stock in this city and to arrive is light.

Feedstuffs.

Ground barley is strong at an advance. Bran, middlings, and feedmeal are very firm. The demand for all kinds appears to be free for the season, due to the poor pasturage.

Hay is higher, with a strong tone at the close. The demand has increased quite largely, and as holders offer more sparingly stocks keep well cleaned up. Choice grades of hay find ready customers at from $14@14.50 per ton.

Fruits.

The shipments of oranges to Eastern points were up to Monday night larger than ever before known, owing to the higher freights going into effect on Tuesday. Receipts in this city continue quite liberal, but the market for good to choice is well cleaned up under a large local and shipping demand. Poor oranges are slow of sale.

Limes and lemons are steady at full quotations. The former are, as a rule, of poor quality, but all choice, good sound keepers are wanted on orders from the Northern coast.

Eastern apples continue in liberal stock, with the poorer qualities moving slowly, even at $3@4.50 per bbl. The more choice meet with a fair trade call.

All advices concur in stating that present prospects of the incoming fruit crop of this State are better than ever before known.

So as to take advantage of the low freights to the East, the market was well cleaned up of dried fruits before Saturday night. The local trade is quiet, but dealers are not pressing sales, believing that prices are likely to go slightly higher.

Heavy shipments of raisins to the East have left the market well in hand, causing a stronger tone to obtain.

The first strawberries of the season were received on last Saturday, and sold at 50 cts per basket.

Live-Stock.

Choice bullocks continue scarce and fetch high prices, notwithstanding the decreased consumption. Slim beeves are weak and placed more slowly, owing to the free offerings on the market. Mutton sheep are easy but no lower, with none expected. Hogs continue strong under light receipts. Lambs are steady, as are calves. Milch cows are in fair request at unchanged prices. In work-horses some trading was done, owing to the demand for drays and trucks to move railroad freight. General utility horses are wanted. Matched horses, good steppers, and generally good appearance are wanted, and fetch quite readily from $500 to $1000 per pair.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 9½@10c; first grade, grass fed, 9@9½c per lb.; second grade, 8@8½c; third grade, 6½@7½c.

MUTTON—Ewes, 6¾@7c; wethers, 7½@8c.

LAMB—Spring, 12½@15c.

VEAL—Large, 6@8½c; small, 5@8c.

PORK—Live hogs, 4¾@5¾c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5¾c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

New potatoes are increasing slowly, but as yet they do not cut any figure in the market. Old potatoes are very strong, with the better qualities in good demand. Stocks are light, as are receipts.

Onions continue to advance under a growing scarcity and a fair demand for the more choice.

Receipts of asparagus have increased quite rapidly, causing a lower range of values. Indeed this can be said of all kinds of seasonable vegetables. The hot, forcing weather has caused them to mature quite rapidly. Prices, as usual, vary from day to day, according to the receipts. Winter cabbage is more quiet, but prices are maintained.

Wool.

For all of two weeks up to April 5, shipments of wool to the East were very heavy. All the old stock was worked off, as were all the receipts of this year's clip. The large shipments were made to take advantage of the low freights before the advance in rates. The market at this writing is unsettled and without life, owing to buyers not being well informed on the new freight tariff and its effects at the East. All quotations consequently are more or less nominal.

Miscellaneous.

Poultry has held to strong prices throughout the week, with choice of all kinds sold above top quotations. Receipts are light and demand good.

Beans are strong, but quiet. Stocks are light, owing to the heavy shipments to the East.

Hops are dull, but the stock is light, barely sufficient to meet the home demand. The shipments to the East last week were unusually large.

Broomcorn is more inquired after, but prices are unchanged.

Mustard is stronger, as the crop prospects are poor. Other seeds are weak.

Tallow is in good request, with the supply lighter.

Hides are weaker, with buyers bidding down.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	207,564	217,022
In port, disengaged	102,398	39,284
In port, engaged	18,055	42,636
Totals	327,917	298,942

The above gives a carrying capacity as follows: 1887, 524,667 short tons; 1886, 478,300 short tons; increase over last year, 46,360.

San Francisco, April 6, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 6, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 50
Butter	1 60	@	1 75
Pea	1 75	@	1 90
Red	1 40	@	1 55
Pink	1 25	@	1 45
Large White	1 75	@	1 90
Small White	1 75	@	1 95
Lima	1 75	@	2 25
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	14	@	17½
do Fancy brands	18	@	19
Pickle roll	—	@	—
Firkin, new	15	@	16
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	8	@	10
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	17	@	18
do, store	14	@	16
Ducks	—	@	—
Oregon	—	@	—
Eastern	14	@	16
Utah	—	@	—
FEED.			
Bran, ton	18 00	@	18 50
Cornmeal	23 00	@	24 00
Grd Barley ton	23 00	@	24 00
Hay	10 00	@	14 50
Middlings	23 00	@	24 50
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR.			
Extra, City Mills	4 50	@	5 25
do Co'ntry Mills	4 00	@	5 00
Superfine	3 25	@	4 00
GRAIN, ETC.			
Barley, feed, ctl	1 02½	@	1 10
do Brewing	1 10	@	1 20
Chevalier	1 45	@	1 60
do Coast	90	@	1 45
Buckwheat	1 00	@	1 20
Corn, White	1 05½	@	1 10
Yellow	1 02½	@	1 07½
Small Round	1 10	@	1 15
Nebraska	1 00	@	1 05
Oats, milling	1 85	@	1 90
Choice feed	1 75	@	1 80
do good	1 65	@	1 70
do fair	1 55	@	1 60
do black	—	@	—
do Oregon	—	@	—
Rye	1 10	@	1 25
Wheat milling.			
Gilt edged	1 75	@	—
do choice	1 72½	@	—
do fair to good	1 67½	@	—
Shipping choice	1 70	@	—
do good	1 65	@	—
do fair	1 60	@	—
HIDES.			
Dry	—	@	16
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4	@	4½
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	20
California	18	@	20
ONIONS.			
Pickling	—	@	—
Silverskin	2 00	@	3 40
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, bd shl	5	@	7
Soft shell	15	@	19
Paper shell	18	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	1 75	@	2 25
Early Rose	1 50	@	1 80
Cuffey Cove	1 60	@	1 80
Jersey Blues	1 75	@	—
Petaluma	—	@	—
Tomales	1 50	@	1 80
River reds	1 60	@	1 80
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 50	@	1 80
Peerless	1 60	@	1 80
Salt Lake	—	@	—
New Potatoes	2½	@	4
POULTRY AND GAME.			
Hens, doz	6 00	@	8 00
Roosters	6 00	@	11 00
Broilers	5 00	@	8 00
Ducks, tame	8 00	@	10 00
do Mallard	3 00	@	—
do Sprig	1 00	@	—
Geese, pair	2 00	@	2 25
do Goslings	2 50	@	3 00
Wild Gray, doz	75	@	1 50
Turkeys, lb	21	@	—
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon.			
Heavy, lb	9	@	10
Medium	9	@	10
Light	11	@	12½
Extra Light	13	@	13½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	11	@	13
do Eastern	14	@	15
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian Rye Grass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	4	@	10
Mustard, white	2 00	@	2 75
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	10	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	2	@	—
Refined	6	@	—
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	18	@	21
Sacto valley	14	@	17
Free Mountain	17	@	18
N'hern defective	—	@	—
S Joaquin valley	10	@	13
do mountain	13	@	15
Cava'y & F'tn'll	13	@	15
Oregon Eastern	15	@	20
do valley	18	@	22
Southern Coast	9	@	1

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 6, 1887

Apples, bx com	1 00	@	1 50
do choice	1 75	@	2 25
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries blk	—	@	—
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	—	@	—
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 25	@	1 75
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	3 00
do Navels	3 50	@	5 00
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries ch	—	@	—
Strawberries dr	1 00	@	2 00
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	7
do evaporated	11	@	12½
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	9	@	11
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
do evaporated	20	@	30
Pears, sliced	5	@	6
do grtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	10	@	13
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus ₩ bx	50	@	1 00
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	20	@	25
Pumpkins pr ton	—	@	—
Squash, Marrow fat, too	10 00	@	12 00
do Summer bx	—	@	—
String beans lb	10	@	15
Tomatoes box	75	@	1 25
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	1 30	@	1 55
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, ₩ lb	15	@	25
Garlic, lb	2	@	3½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, lb	2	@	2½
Sweet Peas	3	@	4
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	12½	@	20
Rhubarb lb	5	@	7

WELL PLEASED, ETC.

OFFICE OF BROWN & MCKAY,
Physicians and Surgeons,
HAILEY, IDAHO, March 17, 1887.

MESSRS. DEWEY & CO., PATENT AGENTS, S. F.: I have received by to-day's mail my Letters Patent, the Specifications in which please me very much. And for the manner in which you have conducted my business, allow me to thank you. Having full confidence in your honesty, fairness and ability, I remain, yours truly, C. W. JOY.

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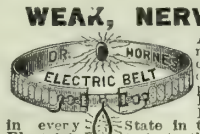
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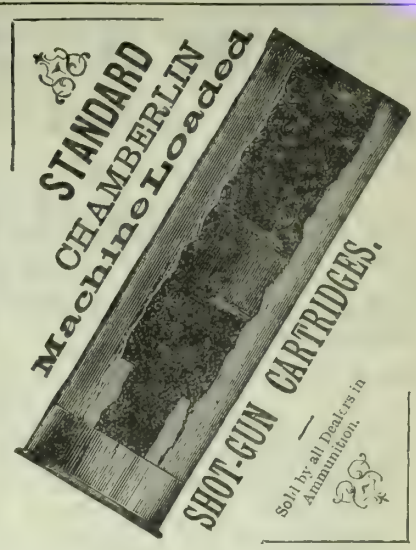
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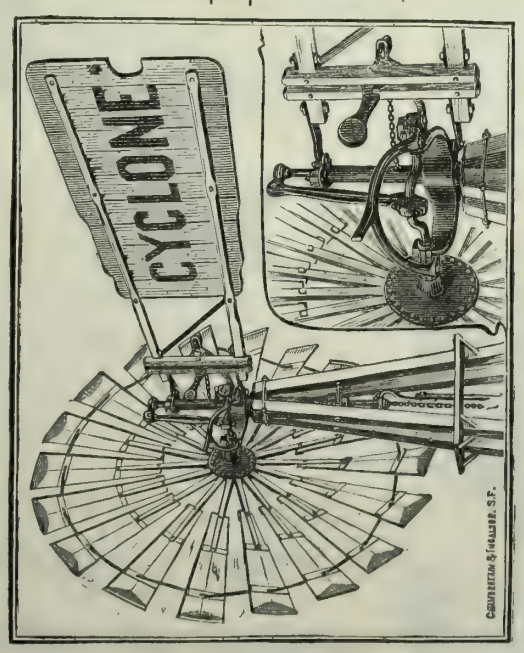
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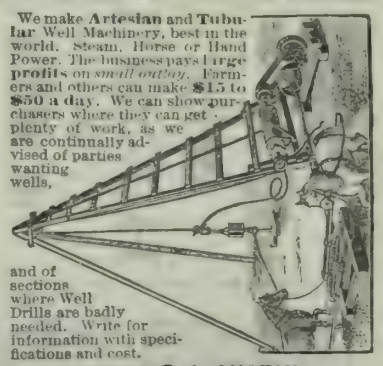
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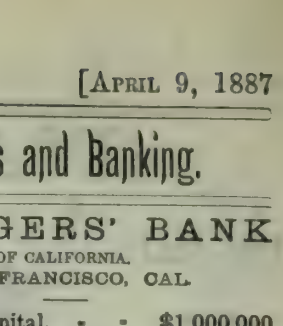
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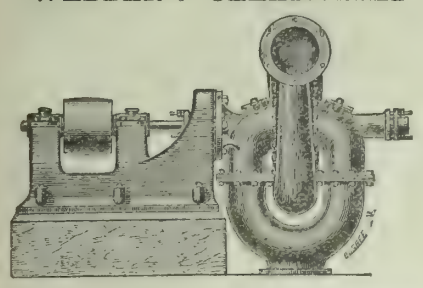
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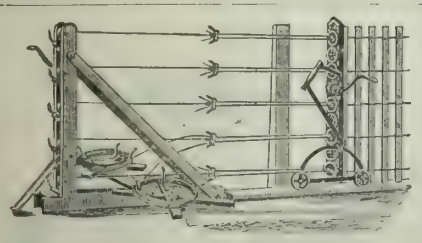
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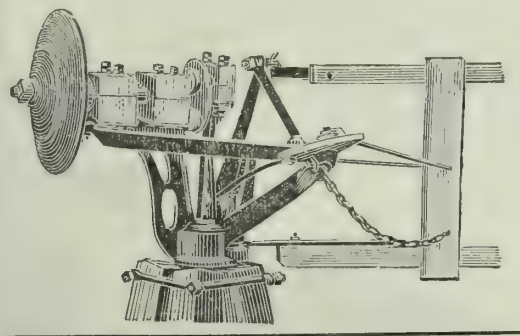
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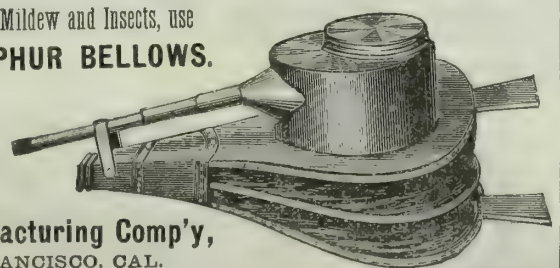
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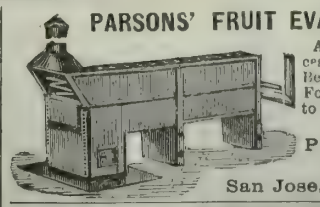
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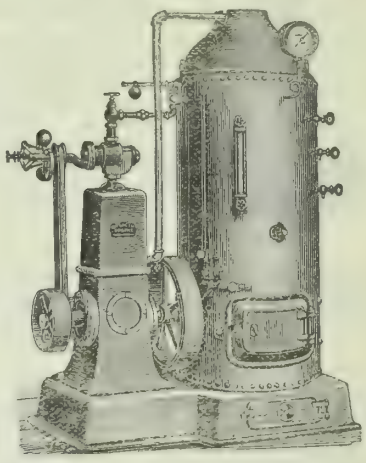
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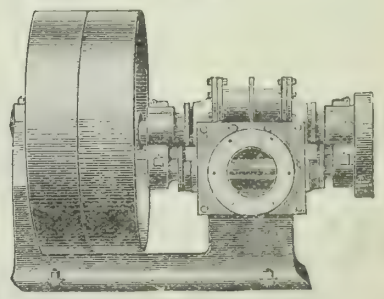
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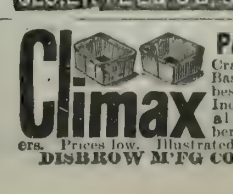
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Adriance "Buckeye" Mower at work.

The preference which has been shown for the harvesting machinery of ADRIANCE, PLATT & CO. by so many thousands of farmers in all parts of the world has nowhere been more decided than on the PACIFIC COAST, where their "Buckeye" Mowers and Reapers have so many years been recognized as STANDARDS OF EXCELLENCE IN PRINCIPLE, MECHANISM AND WORKMANSHIP.

The above firm has been manufacturing the original "BUCKEYE" machines for more than 25 years, during which time we have been their agents in California, and there have been in the meantime about 24,000 of their machines sold here, all having given the best satisfaction. We could cite no better evidence of their superiority and popularity than the above statement. Don't experiment by buying unknown and inferior machines.

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HAND AND SELF-DUMPING Rakes

Has been much improved, and is the best rake in the market, working directly upon the axle by means of a simple clutch in the wheel, does away with that breaking and wearing out of small pawls and ratchets, and winding up of grass in cogs and other gear on outside of hub. Anybody who can drive a horse can operate it successfully.

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PERKINS' WINDMILL.



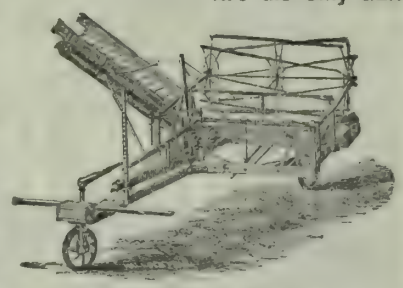
EVERY MILL WARRANTED.

The Genuine Perkins' Windmill has earned a reputation for excellence that will be maintained. It is unquestionably the most perfect and beautiful Windmill in the market.

These Mills are reliable and always give satisfaction. Simple, strong, and durable in all parts. Solid wrought iron crank shaft with double bearings for the crank to work in, all turned and run in adjustable babbitted boxes. These Mills are perfectly noiseless, easy and graceful in all their movements. Positively Self-Regulating, with no coil springs or spring of any kind, no little rods, joints, levers, or balls to get out of order, as such things do. Mills in use six to twelve years in good order now, that have never cost one cent for repairs.

HODGES' HAINES' HEADERS

Are the Only GENUINE HAINES' HEADERS.



Hodges' Haines' Headers.

They are the best improved and most practicable Headers in the market. Many important improvements have been added, which must be examined that their great value may be appreciated.

All of our Hodges' Single-Gear Headers have Self-Adjustable Reels, Patent Beveled Finger Bars, Extra High Patent Iron Wheels, Center Pitmans, Patent Tongue Irons, Improved Belt Tighteners, Balance Springs on Levers, Loose Gear Spur Wheels, Wood Frame Steering Post, and Grooved Steering Wheels. The above-named improvements can be obtained only on Headers made by A. J. HODGES & CO., and sold only by us. We ask you to compare them with other kinds in the market before purchasing.

DO NOT FAIL TO SEE THEM BEFORE YOU BUY.

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Send for Catalogue with REDUCED PRICES for 1887.

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FRANK BROTHERS,

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AGRICULTURAL IMPLEMENTS.

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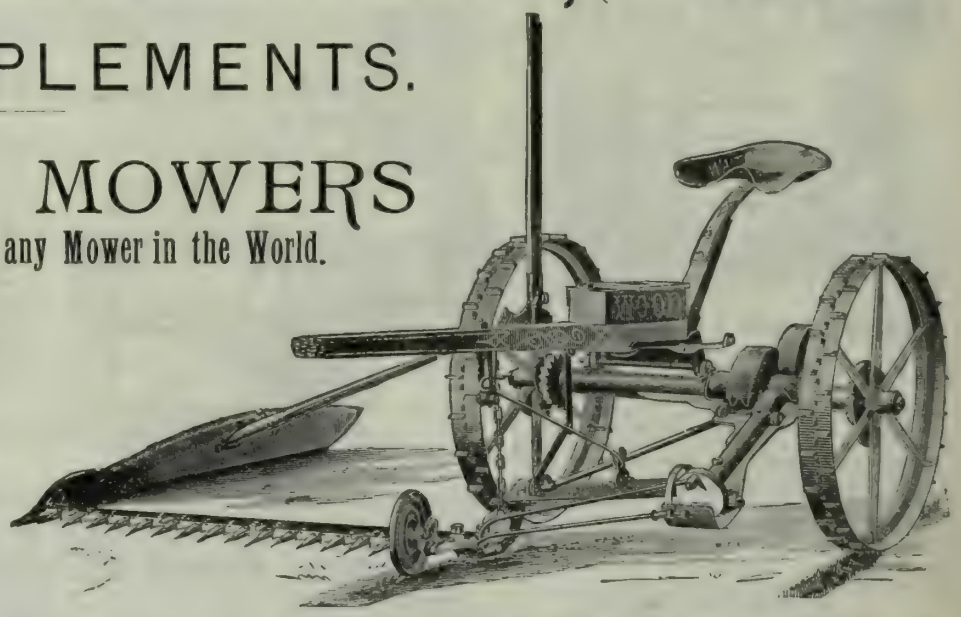
WALTER A. WOOD MOWERS

The Lightest Draft and Most Comfortable to Ride of any Mower in the World.

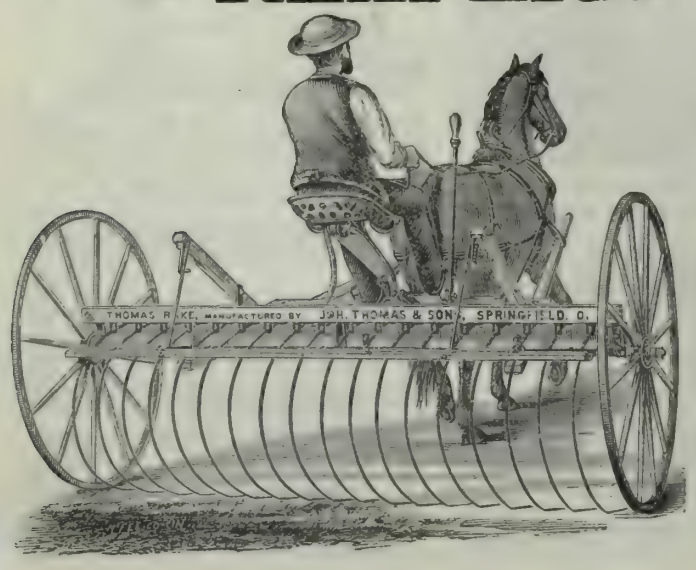
With its unequalled underdraft device the horses pull on the bar direct and there is no slipping of wheels. The draft action on the WOOD is the only one ever devised that accommodates itself with exactness to the varying character of the grass and the ground. It eases the bar automatically in proportion to the pull by the team and resistance of the work, without causing neck weight or side draft.

ENCASED GEARING, PROTECTED PITMAN, LOCK NUTS.

Its Perfected Shifter is without wear and starts the knife instantaneously when the wheels move. Has Wider Tread and Higher Wheels than other Mowers, making it light draft and easy running.



The Walter A. Wood Twine-Binders AND REAPERS.



THE THOMAS RAKE, THE ROYAL SELF-DUMP RAKE, and THE COATES LOCK-LEVER RAKE, all Good and Hard to Equal.

The Thomas is the Best Hand-Dump Rake.

Because it is the easiest-dumping rake made.

Because a long brass spring is over each tooth, causing them to adjust themselves to the ground, consequently there is less scratching and breakage.

Because its overhanging cleaner, with rollers to prevent friction, turns the hay in dumping, brings the green hay on top, leaving it a loose windrow in good condition for drying.

Because it makes the largest windrows. Teeth are shaped specially for taking up hay and leaving dirt and trash.

Because nearly all iron used is either malleable or wrought, every part is strong and durable. Because it is comfortable and convenient to the operator. Some rakes are man-killers as well as horse-killers.

Because best adapted for all kinds of work and ground.

Because always in order, ready for work.

If you want the most perfect and complete rake made, buy the Thomas.

The Royal Self-Dump Rake.

Any boy or girl able to drive a horse, can use this rake, as the horse does all the hard work.

It has a solid and continuous steel axle from wheel to wheel.

The dumping cog-wheel is placed in the center of the rake and inclosed in an iron boxing, thus preventing the lines and hay from winding in it (common faults of other rakes), and either breaking or preventing dumping.

Both ground-wheels are attached to the revolving steel axle, and a slight pressure by the heel or foot dumps the rake instantly.

This rake has on it what is known as the "stationary hand-lever," which remains stationary, while the teeth are being raised, thus preventing the hand-lever striking the driver, as it is apt to do in other self-dump rakes.

Each Coates Lock-Lever Rake

Has an ingenious contrived joint, which holds the Rake firmly to its work, while down, **without using the hands or feet.** It is one of the most powerful LEVERS known in mechanics.

THE TEETH are made of **refined cast steel, tempered in oil,** and every one tested. They readily adjust themselves to uneven surfaces, and will not become weak or bent out of line. **Every tooth is warranted.**

THE REGULATING of the Rake for any kind of ground is done easily by changing a pin at the joint, which raises or lowers the teeth as desired.

Twenty Acres per Day

Is a fair day's work with the Coates, and you can save enough grain from 25 acres of stubble to pay for the rake.

Particular care is taken to use only the **best timber, iron and steel,** to build them in the **strongest manner possible.** The Shafts and Rake-Head are **extra strong;** Thimble-Skein Axles; Wheels very high and well built and finished; Seats easy and thoroughly braced.

PACIFIC RURAL PRESS

TWENTY PAGE EDITION.

Vol. XXXIII.—No. 16.] SAN FRANCISCO, SATURDAY, APRIL 16, 1887. { $3 a Year, in Advance / Single Copies, 10 Cts.

Land Legislation.

The Congressional Act restricting the ownership of real estate in the Territories to American citizens, of which a full copy may be found on page 335, has been hailed with general favor. It is the culmination of a feeling that has been silently growing for a dozen years or more. The report of a Congressional committee that about 20,000,000 acres of land are already in possession of aliens; that one-eighth of Texas and one-sixth of Colorado belong to persons who owe no allegiance to this Government and do not even intend to become citizens of the United States, was startling. Legislation became inevitable. Land monopoly is bad enough, but a foreign land monopoly is simply intolerable.

A London cablegram states that the provisions of the Alien Land Act have created a great flurry in the financial circles of that metropolis; that a large number of American land schemes had been knocked in the head by it; that it arrived while Mr. Dorsey was negotiating with a London syndicate to purchase a tract of several million acres in New Mexico, and Rufus Hatch was trying to unload a big ranch in the same market. Both of these great operators found themselves suddenly left high and dry upon a rock surrounded by the wrecks of a fortune they had nearly anchored in port. The panic has also seized the loan companies and money sharps, as it is uncertain how far this Act may affect their interests in American mining property. The Mines Company of Gresham House, the largest concern of the kind in Europe, has passed a resolution refusing to deal any more in American mines, lands and securities in the Territories. Should a way be found to evade the law, it is not likely they will avail themselves of the chance, as evasions are dangerous, and peculiarly so in a country where the popular sentiment sets in so strongly against the further alienage of real estate.

There are a few who bode alarm, thinking the Act may divert a large amount of European capital from this country, but it is almost certain they are borrowing a deal of imaginary trouble. But be all this as it may, no good reason can be given why it is desirable that any considerable portion of land in this country should pass into the hands of owners who owe allegiance abroad, and many of whom do not even admire our system of government, and there are very many reasons why a system of foreign landlordism should not be allowed to take root in our soil.

This feeling is evidently spreading. An alien land bill has been advanced to a third reading in the Illinois Legislature, and it is believed the measure will pass both houses and receive the approval of Governor Oglesby. This bill provides that hereafter aliens, before being allowed to purchase land in that State, shall declare their intention to become citizens of the United States. Should they fail to take out their naturalization papers within six years thereafter, such lands shall revert to the State.

The bill also provides that all aliens who now have lands in that State shall become citizens within three years after the passage of the bill.

The bill is said to be specially aimed at a foreign landlord who has gobbled up thousands of acres, chiefly in Logan county, and is doing his best to transplant the odious rack-renting system in this country, and the people of the State are determined to nip the enterprise in the bud.

Chico Gets the Normal School.—The commissioners appointed to choose a site for the new branch Normal school, north of Marysville, having returned from their inspecting tour of the competing towns, met in San Francisco and decided to locate the school at Chico, on the beautiful eight-acre orchard lot offered by Gen. Bidwell. The building, which is to be of brick, three-storied, will stand on the bank of Chico creek, within a few rods of the General's handsome residence. The citizens guarantee permanent water right for all water needed for school and irrigation purposes, free of cost, and $10,000 for beautifying the grounds. There was great joy in the winning city over the success achieved.

The Los Angeles Flower Festival was formally opened on Tuesday evening last. The pavilion was crowded, and the door receipts amounted to nearly $3000. Among the visitors were Gen. Miles and staff, the City Council and other officials. Though the exhibits were not all reduced to order, the display of flowers was vastly enchanting. A single bank of roses in the center of the hall was estimated to contain 20,000. A floral ship, with mainmast 13 feet high, was one of the most noticeable designs. The opening address was by Mayor Workman. A grand allegorical procession is looked for every night of the fortnight the fair continues.

The Oakland Fruit and Flower Fair, to be held in Cavalry hall from the 18th to the 23d, promises to be a superb exhibition. Florists and horticulturists are evincing lively interest in and making active preparations for the display. Rare and beautiful plants will be shown by F. Delger, I. L. Requa, Mrs. F. M. Smith, A. Chabot, Mrs. Garber, Mrs. Deane and others. Beside the eight cash prizes which we referred to a fortnight ago, a special prize of $20 is offered for the finest display of cut flowers, to be made Tuesday by ladies of Alameda, Berkeley and Fruitvale. Mrs. John Deane, of Claremont; Mrs. Samson, of Alameda, and Mrs. H. Wetherbee, of Fruitvale, have been selected as a committee to make this award.



GROUP OF IMPORTED PURE BRED SUSSEX CATTLE.

Sussex Cattle.

Since well-bred cattle have become so popular in this country, there has been a reaching out to all parts of the world for breeds which are locally popular, and which can be brought here and still farther improved, as is the American method, with imported stock. Although much has been done in increasing our resources of various breeds, even to the bringing of the Brahmin cattle of India, there are plenty of breeds still to come, for the continent of Europe has still many excellent local favorites which are not yet popularized in this country. We have on this page a group of cattle from a breed which has a good history in England, but which has only lately become a candidate for favor in this country. They are the Sussex cattle, which bear a resemblance to the Devon, and according to Youatt, "unquestionably betray the same origin. "The cattle have been bred from the earliest times in the fastnesses of East Sussex, and have been kept free from all admixtures. The Sussex are beef cattle and it is upon the excellence of the Sussex ox that the fame of the breed rests. Youatt says: "The Sussex ox holds an intermediate place between the Devon and Hereford, with much of the activity of the first and the strength of the second, and the propensity to fatten and the beautiful fine-grained flesh of both. Experience has shown that it possesses as many of the good qualities of both as can be combined in one frame." The cow is described as of little account for the dairy. The breed coming from the hilly pastures of Sussex is bred to thrive on an uneven country, and to do well on pastures only moderately set with grass.

The band of Sussex cattle shown in the engraving is the property of Overton Lea, of Nashville, Tenn. The bull, General Roberts, in the foreground, was calved in March, 1882, in England, and won prizes as a yearling in 1883 and the first prize as a two-year-old at the Royal in 1884. The same year he was imported to this country by Mr. Lea. The weight of the bull on moderate feed was 2209 pounds. The cow on the right, a four-year-old, Milkmaid, and the two-year-old heifer on the left, Rosedew, were both imported by Mr. Lea from famous Sussex herds. It is claimed that Sussex cattle have fine size and maintain great weight upon the system of feeding common to all cattle on the farm—plenty, without any attempt at forcing.

Correspondence.

Correspondents are alone responsible for their opinions

Santa Barbara County Notes.

Editors Press:—The graders of the branch Southern Pacific railroad are now working in the valley of Carpinteria. As a consequence of the boom, incident to the building of the road and opening up of this section, lands are going up in value, far above the intrinsic worth of any crops that can be produced here, as so many are anxious to get a slice of the "glorious climate." Several transfers have been made in Carpinteria at from $250 to $400 per acre, for land without buildings or trees; and $600 per acre was refused for 20 acres of walnut trees. Two new towns are being laid out here on the line of the railroad. In the city of Santa Barbara the boom goes on. Many fine residences and business blocks are going up. The city is lighted by electricity and various other improvements are in operation.

The County Horticultural Society is thoroughly alive, and will hold its annual rose festival and citrus fair on the 13th, 14th and 15th of this month. This flower and citrus fair is one of the specialties of the county, and can nowhere be beaten. The fair this year will be held in the Agricultural Pavilion and will undoubtedly prove a greater success than ever, the accommodations heretofore having been too small.

Fruit and walnut trees are blooming full. Thousands of olive trees have been set out in the Santa Ynez valley and vicinity, and will, in time, make that section one of the largest oil-producing regions of the world. The grain and hay crops throughout the county are in need of rain, and will suffer severely if it does not fall soon. Along the coast heavy fogs now prevail and help the growing crops to some extent. Some corn and beans have already been planted, the farmers fearing that the rainfall after this will be very light and therefore wishing to save what moisture there is in the ground from the last rain.

H. L. Williams is down over 400 feet in his oil-boring operations on Ortega hill. So far he has passed through two small veins of oil, but not in paying quantities. He is now working in sand much resembling seasand.

L. B. Cadwell.

Carpinteria, April 4, 1887.

From Tuolumne County.

Editors Press:—The Granger sings a new song of joy, this seventh day of April. The rains bathed the foothills last night with nearly 1½ inches of water—a baptism really necessary to insure even half a crop. All nature this morning wears a gladsome look. The verdure that was dying is springing up into renewed life. The fruit trees were changing from blossom to germ, and this rain is just what was required for a full setting.

Plenty is written all over for this season, and our faith in the goodness of an overruling Providence grows stronger the longer we live and take note of passing events. When we put ourselves in the scales with that unseen but not unfelt power, we become small and helpless indeed. As a general rule, crops did not suffer so much as feed; the hills were drying up, and the lone spots with shallow soil. The roots of grain did not wilt much, but its growth was retarded for lack of moisture.

At noon, appearances indicate more rain, and it is probable that the storm will continue until after full moon. If frosts come not, the fruit crop will be more abundant than for years The old Wadsworth place has been sold to parties from below for the sum of $2700—the first of our boom. The place is on the Mountain Pass road, adjoining James Goodwin's noted orchard. It is coming! Our foothills will yet be appreciated for their intrinsic worth.

April 7, 1887. John Taylor.

Vacaville Notes.

Editors Press:—The glorious rain has come at last and brightened up the faces of the farmers, as well as the trees and grass. There has fallen at Vacaville, in this last storm, 2.18 nches, and probably more will follow. Rain was needed as badly as I have ever seen it needed in this county in 30 years. On the plains between Dixon, Elmira and Cache Slough, the summer-fallow is from 12 to 18 inches high and very thick, and now will probably make big crops. Of the winter sowing, but very little is able to see over the clods, and what heads out will be very light. Grain is two weeks later than last year at this time. The hay crop will be light and short. The fruit prospect is better than ever. The late rains will be a great benefit to fruit, notwithstanding the statement of one of our large fruit-growers to the contrary. In many of the orchards, clod-mashers were going before the rain. Now the ground can be put in fine order with a harrow. The last time going over the ground is generally done with a weed-cutter. This implement is made with a frame like a sled, from 4 to 6 feet wide, and a cutter-bar of steel, a quarter of an inch thick and about 5 inches wide, sharpened on both sides and turned up square at the ends, so as to fasten to the runners with an iron clamp. The knife can be raised or lowered, and is usually run 3 or 4 inches deep. This cuts everything that it runs over, is very cheap, and does good work where the ground is not too wet. There is no patent on it, and any blacksmith can make one. G.

Vacaville, April 10th.

Fruit Marketing.

The California Fruit Union.

H. A. Fairbank, Secretary, on the part of the Directors of the Fruit Union, has issued the following statement:

The shipping season is advancing very rapidly, and while notifying you of the action of the Board taken March 14, 1887, by which the 4th installment of 25 per cent is now called, it might not be out of place to outline in a general way the anticipated plan of action for the coming season.

It was deemed best by the Board to send a fruit-grower, one who alike with us all would be interested in securing the best possible service the coming year, East, with instructions to thoroughly canvass all the principal markets—to personally investigate and establish connections of some character in *all* cities which can take fruit in car-lots; to acquaint himself, where agents to sell on commission are appointed, not only with their financial standing, but also their business qualifications and peculiar fitness for handling our particular line of the commission business; and having brought to bear the leverage of competition, to make the best possible terms with them as to commission to be charged; the principal aim this year being to develop markets as yet almost untried.

Our president has been selected to undertake this work, and intends starting about the latter part of May; and after working the matter up thoroughly in the East, establishing agencies and making contracts with the same in cities where it seems best, and getting into working order the machinery for handling by auction in others, he will return and present his report to the Board for their approval.

At the beginning of last year, that we ought to be able to ship fruit was simply a theory. The past season proves the theory a correct one. We *did* ship fruit, and consequently Eastern commission-houses being cognizant of the fact, we not only expect but already have received offers from a number of the largest houses, who last year desired 10 per cent commission, to take the agency of the Union at a much cheaper rate.

We can see no reason now why the business may not be very successfully conducted the coming season.

The strife of last year, and consequent competition in our own fruits, is effectually done away with, as the most prominent shippers are now associated with us, and we are all working earnestly for the same result—the advancement of the fruit interests. Those who desire to sell their products can now do so to our own members, and your fruit so sold will not be put on the market to break the price for your neighbor who prefers shipping on his own account, the intention being to so regulate shipments through our General Manager that no markets are glutted, and especially to put forth every effort to develop new fields, to the end that we can successfully (to our pockets) handle the immense amount of fruit which must, of necessity, be shipped out of the State.

Should but a comparatively small proportion of the prospective crop, from the present outlook, be put in a green state upon our local markets, we venture to assert that 1½ cents per pound would be the highest figure that even the most fortunate shipper would average for his crop.

Our stock is not assessable, so that when you have paid this, the last call, your stock is then paid in full, and nothing more can be collected upon it.

The revenue of the Union for defraying expenses, etc., must be derived in the following way: Each one consigning fruit through the Union pays 10 per cent commission. Of this amount, as different markets require different amounts, the commission merchant retains whatever is agreed upon, but at the highest, a commission of not to exceed 7½ per cent, and returns the difference, certainly 2½ per cent, possibly more, to the treasury of the Union.

This amount of rebate, if you so desire to term it, on the volume of business, at the unusually low prices, done by the two organizations of last year—now consolidated—will yield an income to the Union of $17,500, an amount which will amply pay all possible expenses, together with a dividend to the stockholders.

Should the business so increase in coming years that we find we are accumulating a large reserve fund, as the by-laws prescribe that dividends on stock shall not exceed six per cent, we can easily, by reducing the commission charged all consignors, reduce the income, because, as we understand it, the corporation is not designed to be a money-making investment as regards stockholdings, but simply a co-operative movement for our protection, which we desire at the same time to be self-sustaining.

We anticipate a great many have deferred remitting the third call, which was made Sept. 24, 1886 (as nearly $3000 still remains unpaid), because they were waiting to see what arrangements would be made for operating the business the coming season.

To all such we would say we now see no reason why they should not at once remit whatever may be due from them as delinquent payments, together with the fourth and last installment of 25 per cent now called. With all working in harmony, the disastrous results of last year *cannot* be repeated, and it must surely be presented with a great deal of force to every thinking mind, after looking about at the amount of fruit which we will have to take care of, that in the successful operation of this or a similar organization lies the prosperity of every one who has money invested in fruit property.

While a few associated together can surely bring about some good, to accomplish the best results we must *all* put our shoulders to the wheel, and while we are working out our own financial problem we will be benefiting one another as well.

The Board after deliberation decided that they could not in justice ask those who *did* pay their obligations to drag along those who did not, and so fixed the date as the 1st of May, after which all who have not paid the amount they owe the Union will be debarred from all privileges.

While to some these may not have been apparent, they certainly have existed, though few in number to what all concede we may now expect for the future.

Gratified at the outlook for a successful year's business, some of our largest stockholders have paid in full and taken more stock, in order to place the organization on its feet financially, as we are still some $700 in debt.

Had all the stockholders of the Union been as prompt in the payment of the calls, as they have been made, as has been the one of our members who certainly, if any, had reason to repudiate his obligations and complain at the results of last year's shipping—he having not only received nothing for seven cars of fruit, but at the same time found himself a very large amount in debt—there would have been no need for this fourth call. Certainly, many who are yet hesitating about sending the small amounts which may be due from them would do well to profit by this example.

Trusting that you will not only be prompt with your responses, but that you will influence your neighbors, who may not as yet be with us, to become members, we remain respectfully, H. A. Fairbank, Secretary.

California Fruit in New York.

We find in the New York *Market Journal* of March 26th the following notes on California fruit in that city:

Leading handlers of California fruit in this market give it as their opinion that if the Interstate Commerce law does not "play hob" with transportation, sales of the grapes, pears, plums, apricots, etc., of that section will be far more extensive this season than in any previous year.

Mr. Joshua Cromwell, of Fulton street, sold last year nearly 60 carloads of California grapes, and he believes that his sales can be largely augmented this season. Through his efforts these delicious grapes—the Muscat and other varieties—were last season distributed about among the people so extensively that, having once got a taste of them, they will surely demand more at anything like reasonable prices.

That shipments of grapes from California to the East were last year not altogether profitable was due, not so much to the large quantities sent forward as to the fact that so many of them were in poor condition when they arrived here. It is believed that twice the quantity received last year might have been disposed of profitably if they had come through direct to New York, and without delay in transit.

But at least ten times the quantity of California grapes were sold in this market last year over any previous season, and the heaviest shippers declare that the returns made from the New York market were altogether more satisfactory than those from any other point in the country. Many people will earnestly hope that our supply of this fruit of the Western vines will not be diminished this year, but that, on the contrary, it may be increased, and those whose enterprise has introduced and popularized the delicious fruits of California among us may find a permanent and profitable business in continuing to supply them.

A Large Fruit Auction-House.

The long-agitated question of having a new auction-house for the daily sales of fruits and produce has at last taken definite shape.

Some 15 or 20 of the leading fruit and produce-dealing firms of the city have associated and formed a Limited Stock Company, with a capital of $100,000, which has decided to establish an auction house at once, for the daily sale of produce and green and dried fruits, both domestic and foreign.

It is rumored that the new company has secured a building for the purpose in Park place above Greenwich street, and it is also stated that the stock of the company is in eager demand by the fruit and produce trade, who see in the movement the promise of a great success.

Sheep and Wool.

Improved Saxony Sheep.

Editors Press:—Being much interested in your illustrations and description of the Improved Saxony sheep in the Rural of January 22d, I wish to make further inquiry about them. The thought suggested by your article is: May it not be a profitable breed for California sheepmen to try, particularly in this section—Southern Humboldt—where there is no trouble from seeds and burs? How do they compare with the American merino for hardiness? and will they do well in large bands? What is their disposition—quiet or roving? And most important of all, what is their weight of fleece? Is it well set—that is, a large number of fibers to the square inch of surface? Those in the engraving seem to be as well covered as a merino. Our California climate might prove with them, as with other stock, to be just the thing, with intelligent handling, to bring them to the highest perfection in quality and weight of fleece, as well as constitution and form. More information on the subject would be very acceptable to the sheep-breeders of the State. —Rancher.

Editors Press:—I will endeavor to answer the queries of your correspondent "Rancher" in regard to improved Saxony sheep.

1st. "How do they compare with American merino for hardiness?"—I consider them more hardy than the American merino. The wool has much less grease. I think it requires as much feed to put grease in the wool as would fatten the animal. And if extra feed is not given, such animals decline in flesh and health. A certain amount of grease is necessary and healthful, but too much is a drain on the vitality of the animal, and is only a waste of feed.

2d. "Will they do well in large flocks?"—We never keep more than 100 or 200 together. Our land is fenced and divided into 10 or 20 acre fields, and not suited for very large flocks. They do better in flocks of that size than any other breed I know of.

3d. "What is their disposition—quiet or roving?"—They are very quiet; have been kept in inclosed fields for generations, and, if hunger is satisfied, will lie down contented.

4th. "What is weight of fleece?"—They are not heavy shearers. When bred up to XXX and above and brook-washed till clean, in order to secure the price of fancy wool, from four to five pounds for ewes and young sheep and eight or nine pounds of washed wool for rams. The washing reduces the weight about one-third.

5th. "Is it well set or compact on the sheep?"—Not so close on the sheep as the American merino, but still not what would be called open wool. They are well covered over the body, extending over the belly and legs. They are a great improvement over the first importations. I think they are a class of sheep that would be suitable for California. Of course, it can only be ascertained by experiment. We claim that they are hardy and active, and will secure for themselves a good living if it is in reach. They have much better feet than the merinos. I think it would be well if some of your breeders would give them a trial. They combine the highest priced wool on a good mutton carcass. They are as large as the merino, and much easier fattened.

John G. Clark.

Lagonda, Wash. Co., Pa.

The Wool Market.

The Sawyer Tanning Company of Napa, under date of April 1st, issues the following circular letter:

Owing to the uncertainty of freight rates East, we are unable to issue our regular price-list at present, but will do so as soon as we can determine what arrangements are to be made for shipping wool, hides and leather to New York and Boston.

To-day's San Francisco papers give rates by rail as follows: Wool, $3.85 per hundred; dry hides $4.65, and leather $5.05, from San Francisco to New York.

These rates will doubtless prevent all shipments until a different tariff is made. What the new rates will be, or when they will be made, is a matter of very great uncertainty.

We may get some relief from Pacific Mail, but it is doubtful. We propose to hold our product for lower rates or at least until it is determined whether we are to have favorable rates or not. We intend, until further notice, to reduce our prices on pelts, wool, hides and goatskins about ten per cent below prices given in our last price-list. This would bring sheep pelts with 6 or 8 months' growth of wool at from 75 cents to $1 each; 8 to 12 months' growth $1 to $1.25; shorts from 4 to 6 months, 50 to 70 cents; shearlings, 15 to 25 cents.

We recommend consignors to hold dry hides until rates are established, as we consider rates given prohibitory of shipping. Goatskins are in full supply and declining in price — reduction fully ten per cent. Deer and furs remain about the same.

We would advise great caution, as matters are in a very unsatisfactory condition. In addition to this trouble with freights, we have to report a very dull and declining wool market in the East.

Manufacturers complain badly of low prices obtained for goods, and beyond a doubt very low figures are now obtained for both wool and goods in the great markets of the East.

We hope to be able soon to report a better state of affairs.

The Ornithologist.

Dr. Gally on Birds and Bugs.

Editors Press:—This is in Pajaro valley, on the bank of the Pajaro river, on the side of Santa Cruz county, Monterey being on the other side. I've been living here 12 years, raising fruit, etc. Nearly every year, as soon as my cherry trees began to put on the white robes of constancy to the season—that is, to blossom—along came a swarm of dear little birds, such as linnets, sparrows, finches and a particularly mean bird—greenish-brown bird, with a long, slim beak—that looks some like a catbird, which is away back in Ohio and Pennsylvania. His further description I leave to the ornithologers, begging only further to say that this bird is no account—can't whistle, can't sing worth a cherry stone, and he is not pretty.

Well, every year, until this year, these birds come swarming in greater or less numbers just as soon as the cherries begin to bloom; and they cut the cherry blooms right across, behind the white flower leaves, till in a single day's work the ground under the tree boughs looked as if snowed upon. Now, I want some smart man or woman to inform the generous public where the birds have gone this year. The trees are loaded with blossoms—never man saw the like—too many blossoms for any good use, but no birds, or, if any, so few that their work would not be noticed by any but an experienced sufferer from bird ravages, or by an expert horticulturist.

I have read lots of eloquence, gush, mush, slush and blathering about having a board to hunt up, identify, arrest, quarantine, convict and execute the bad bugs.

They want a board, they say—why, gentlemen, it will take a whole lumber-yard and a bushel and a half of microscopes, and even then you will not get your work all in. The reason I so conclude is partly from the fact that 50 years ago, in Ohio, Pennsylvania and West Virginia, the women rose up "as one man" and resolved to obliterate the bedbug. They went to work at once. I watched them for over 25 years, scalding, soaping, poisoning and poking into nail-holes after the bedbugs; and I have reliable information that they are still at it—that is to say, they, or if the mothers have gone across the eternal river, then their beautiful motherly daughters of the rising generation. The women of America—more power to them—still wage relentless war upon the wingless, odorous, walking abomination of the midnight hour, yet he, the bedbug, like the stars and stripes at Fort Henry, "is still thar."

Now, if the women of America in half a century cannot destroy one kind of bug, how are a few old political stiffs and antiquated apple-sass men going to meet the gorgeous host of entomological hostility that swarms the brilliant balm of California's atmosphere? Go to; let every man in California, like every woman in the East, fight his own bugs, and if he will not fight 'em let his neighbors complain of him as a nuisance. That's all the law need do, except to look out for new importations.

But here is a plain thing. Birds are big enough to be seen, and ought to be easily traced with the naked eye; and I want to know what has become of my birds—where and why did they go? Will any of the bugs follow them?

J. W. Gally.

On the Farm, near Watsonville, Cal.

The Public Lands.

Limitations on Alien Land Owning.

The following is the full text of a law approved by the President on the 3d day of March:

An Act to restrict the ownership of real estate in the Territories to American citizens, and so forth.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that it shall be unlawful for any person or persons not citizens of the United States, or who have not lawfully declared their intention to become such citizens, or for any corporation not created by or under the laws of the United States, or of some State or Territory of the United States, to hereafter acquire, hold or own real estate so hereafter acquired, or any interest therein, in any of the Territories of the United States, or in the District of Columbia, except such as may be acquired by inheritance or in good faith in the ordinary course of justice in the collection of debts heretofore created; provided that the prohibition of this section shall not apply to cases in which the right to hold or dispose of lands in the United States is secured by existing treaties to the citizens or subjects of foreign countries, which rights, so far as they may exist by force of any such treaty, shall continue to exist so long as such treaties are in force, and no longer.

Section 2. That no corporation or association more than 20 per cent of the stock of which is or may be owned by any person or persons, corporation or corporations, association or associations, not citizens of the United States, shall hereafter acquire or hold or own any real estate hereafter acquired in any of the Territories of the United States or of the District of Columbia.

Sec. 3. That no corporation other than those organized for the construction or operation of railways, canals or turnpikes, shall acquire, hold or own more than 5000 acres of land in any of the Territories of the United States; and no railroad, canal or turnpike corporation shall hereafter acquire, hold or own lands in any Territory, other than as may be necessary for the proper operation of its railroad, canal or turnpike, except such land as may have been granted to it by Act of Congress. But the prohibition of this section shall not affect the title to any lands now lawfully held by any such corporation.

Sec. 4. That all property acquired, held or owned in violation of the provisions of this Act shall be forfeited to the United States, and it shall be the duty of the Attorney-General to enforce every such forfeiture by bill in equity or other proper process. And in any suit or proceeding that may be commenced to enforce the provisions of this Act, it shall be the duty of the Court to determine the very right of the matter without regard to matters of form, joinder or parties, multifariousness, or other matters not affecting the substantial rights either of the United States or of the parties concerned in any such proceeding arising out of the matters in this Act mentioned.

Approved March 3, 1887.

Horticulture.

Tree-Growing.

Editors Press:—One of your correspondents wants information on this subject. Perhaps my limited experience may be of some value. For eucalyptus, I fill shallow boxes three inches deep with rich soil, very sandy, so it will not bake with repeated waterings. I sow broadcast the seed, so as to have a seed or more to every half inch; sprinkle an eighth of an inch of sand over the seed, and over this a slight covering of sawdust. In hot sun a protection of barley sacks would be advisable. Water as often as to keep the soil in good growing condition. In two weeks the seed will be up. When three to six inches high, flood so as to make a soft mud, knock off one side of the boxes, remove the trees carefully, so as to save all the roots; do not expose them a moment to the sun or wind—I prefer a cloudy day—and set where they are to remain permanently. In this locality, October is the time to sow the seed, and they are ready to transplant in the spring; and by fall some of them will be six or eight feet high. I have tried transplanting large trees, but never with success.

I sow Monterey cypress in rich, moist soil, in the ground, the same as beets or onions, in the spring; if the sun is very hot, protect them with barley sacks or brush till they come up; keep them well cultivated during summer, and the following spring they are 6 to 12 inches high, and ready to transplant permanently. I do not scald these, or eucalyptus seed. They never failed to start passably well, with such seed as I have bought in the market, and the trouble is very little, and much better than to buy the trees, as they are already at hand, and can be set at one's leisure time, and little or no exposure to sun or air.

My wife once sowed some pepper seed, taken, I think, from trees growing in Santa Barbara. This was not a success, as I believe but two of them came up, and yet it *was* a success, as one of the trees is now growing where it was originally sowed, and it is worth a hundred-fold the cost. Yes, it is best for one to raise his own trees, for, in this case, he will think more of them, and take better care of them, enjoy them better—*have* them. In the other case, he may have them, and he may not.

Santa Barbara Co. S. P. Snow.

The Golden State Almond.

Editors Press:—In reply to your inquiry under date of March 31st, concerning the new seedling almond now growing in the Oak Shade orchard, and briefly referred to in the Dixon *Tribune* some time since, I will say that the description given was substantially correct, except that the tree is now ten instead of eight years old as stated, and has for some years past borne full crops without a single failure.

The nut is a large soft-shell, and has a full smooth-skinned meat. The nut parts from the hull readily, and if left on the tree will fall out of itself. It ripens from four to five weeks earlier than the Languedoc and the famous foreign variety known as the Taragona.

Its present position in the orchard was due most likely to oversight; and though recognized as a seedling, it was through neglect permitted to remain, until its real worth was established on the third year by a full crop of fine almonds; and season followed season disclosing new merits, until in an orchard surrounded by many thousand trees of Languedoc almonds it is in no perceptible manner favored by soil, location or treatment, and has borne from 40 to 50 lbs. of nuts yearly for the past two years. This nut, which I have named the Golden State Almond, is destined in my opinion to take a front place among the almonds raised at this day. One of its great advantages is that as it ripens so much earlier than the foreign variety, the Taragona, it can be gathered and shipped East before the Taragona is put upon the market. My confidence in the superiority of this almond over all others is such that I intend budding 60,000 trees this summer, the larger portion of which I shall plant in an orchard of my own.

Such, in brief, is the history of the Golden State almond, and any further particulars, if required, will be cheerfully given on application.

Webster Treat,
Manager Oak Shade Orchard.

Davisville, Yolo Co., Cal.

The Dairy.

The North Pacific Dairymen.

In one respect at least the dairymen of Oregon excel their California brethren, and that is in maintaining a dairy society for discussion and action upon matters affecting their industry. Their last meeting was held about two weeks ago. The report in the *Farmer and Dairyman*, of Portland, states that a committee was appointed to confer with the officers of the Domestic and Fat Stock Association, to make arrangements, if practicable, to hold an exhibition of dairy products in connection with the fat stock show next fall. The following constitute the committee: Messrs. J. B. Knapp, P. C. A. Heilmann and D. C. Stewart.

A resolution was passed indorsing W. B. Baker as dairy commissioner, and recommending his reappointment by Gov. Pennoyer.

President's Address.

The President of the society, Mr. J. B. Knapp, delivered the following address:

To the Officers and Members of the North Pacific Dairy Association: Since our last meeting the Legislature of the State of Oregon has met, held its usual session, adjourned, and its Acts have passed into history. Among the Acts passed by that body was an Act amending the dairy law of the State. The amendments were substantially those discussed and recommended at the last meeting of this association. Oregon has now a good dairy law, and I confidently hope it will give dairymen and consumers of dairy products all the protection needed. In one respect the law is still defective. While it declares that pure, unadulterated milk, and butter made from the cream of the same, shall be furnished to customers, and a severe penalty attached for its violation, it has given no declaration or standard of pure milk, of what should constitute in a legal sense, or determine the standard of purity. Suppose a dairyman is delivering milk to his customers, or to a creamery, and is accused of adulteration. The dairyman asserts his innocence, and perhaps litigation ensues; experts are called as witnesses, and authorities are consulted to establish what should constitute pure milk. Had the law declared that milk of a specific gravity of 1030 and 12 per cent volume of cream should be considered and regarded as pure, the contestants would have a positive and legal standard for comparison; and any person of common intelligence with simple instruments within the reach of every one, at a cost of less than $1, could determine the question of purity or adulteration to his entire satisfaction without trouble or cost.

The committee on legislation appointed at our last meeting to secure the needed amendments to the dairy law were divided on this question. A majority of the committee insisted on establishing a legal standard for the pure milk, believing if such standard was established disputes that might arise would be more readily adjusted and settled without resorting to legal forms. A minority of the committee opposed such standard, and rather than go before the Legislature, divided upon any amendment we asked; the majority gave way and consented to have the question of standard of purity left out altogether. Had such standard been established it would render the law more positive and easier of execution.

But as it is, we have a good dairy law. Any citizen feeling aggrieved on account of adulteration of milk, or short weights in butter, can remedy the matter peaceably himself, or failing to do that, can readily bring the offender to justice.

Dairymen had now better examine their butter molds, and if found too small cut out and enlarge them till they bring them to the required standard weight of two full pounds. Oregon dairymen are now relieved of the unjust discrimination against them by short-weight butter imported into the State and sold to dealers at actual weight, and to consumers by the roll, enabling the middleman to make a double profit and thus offering him a premium to discriminate against a home-made article.

The consumer has now ample protection against adulterations and the short-weight swindle. Both consumers and producers ought to be happy. Oregon dairymen have now a fair field before them, and no unjust discriminations against them. With very favorable conditions of climate, soil, and pure water, he has the elements of success within his reach. If he cannot now succeed the fault is his own.

Good, thorough, honest dairying will insure success. Without it the best quality will not be produced. Superior quality commands ready sale at the best going prices. Each and every one should make it his especial aim to produce the very best.

Should any lack in experience or the knowledge requisite to success, the State has provided the means to furnish ample instruction. Section 13 was added to the dairy law, authorizing the dairy commissioner, either by himself or by his deputy, to give a course of lectures in each county on dairying, when called upon by the citizens of any county to do so. There are several publications devoted to the dairy interests, giving from week to week valuable information on practical dairying, so there is no excuse for ignorance on this subject. The State has done nobly for the dairy industry. It has given us a law affording ample protection to producers and consumers, and furnishes free instruction in practical dairying to those wanting it. What more could we ask? What more should we expect?

It now rests with the farmers and dairymen to work out the problem, and honest work will bring success.

Uniformity of quality and color is a very important element in determining the commercial value of butter. Let 20 or 30 farmers having 20 cows each make their butter at home, and there will be as many different qualities of the product and as many different shades of color. The quality of each and all may be fairly good, but the commercial man has little confidence in it. Let the cream be gathered from each of those dairies, taken to a central creamery, worked by an expert, and the product of all combined will be uniform and of one color. The product will rate as first-class, and the commercial value in the market will be 25 per cent greater than in the first case.

The establishment of creameries, which I have often advocated, will contribute very materially and rapidly to the success of dairying in Oregon. In this way farmers and small dairies can sell their milk or cream to cheese factories and creameries, and realize more for it than to work it up at home, and get rid of all the work and drudgery of doing so. The day of small dairying and selling the product to the nearest country store is past. There is nothing in it for profit; better feed the milk to calves and pigs and save the labor.

The Oregon Law.

Mr. Paulsen, of the Legislative Committee, stated it as his opinion that the amendment as to a maximum specific gravity mentioned in Mr. Knapp's address, would not have passed the Legislature, and that he found a strong opinion among many of the members averse to the continuance of the dairy law, and against making an appropriation therefor. While he would have been willing to see an amendment of the kind referred to, he thought the opposition was too great. He said that 12 per cent of the volume of cream as the minimum for cream, as asked for by some of the members of the committee, was in his opinion too large. The result of 44 tests in the analysis of milk, as made by Dr. Stevenson Macadam (*American Chemist*, May, 1875, page 149), shows as the highest specific gravity for cream, 11.25, and the minimum, 5.00, and an average of only 7.8. The British Society of Public Analysis fixed on the following as the minimum for milk, viz.: Fat, 2.50; solids, 9.00; water, 88.50; total, 100.

Mr. Paulsen said that among the amendments passed by the last Legislature, the one referring to the feeding of "brewer's waste" was the most important one regarding the production of pure milk, and the amendment requiring full weight of packages and rolls the most important one as regards butter.

Mr. Knapp spoke of the opinion of the Governor and some of the members at the opening of the Legislature, for the repeal of the dairy law, but after the necessity of the law was explained to them their opinions were different.

Mr. Baker: An important direction of the law, until changed by the last Legislature, required the commissioner to take cases of violation to the grand jury room, where parties charged with offense against the law were allowed to explain that they were not intentionally violating the law, and had tried to obey its provisions. The present law, as amended, gives justices' courts jurisdiction in cases of violation. Mr. Paulsen has been active and energetic in working for the dairy law.

Yield of Oregon Milk.

Mr. Heilmann: I have been corresponding with the proprietors of several creameries in Oregon, inquiring as to how much milk it requires for every pound of butter made, and the reply came from the Farmington creamery that they used in test, 23.86 pounds of milk to a pound of butter; J. West, Westport, 25 pounds; W. N. Ruble, Syracuse creamery, 30 pounds; H. W. Koch, Woodland, W. T., 22 to 28½ pounds; Brownsville creamery, 12½ to 38 pounds of milk to each pound of butter, the test showing a wide variance, probably owing to breeds of dairy stock, their condition and treatment, and the condition of the cream, etc.

Mr. Collins, of the Hillsboro creamery, reported a test made there required 21½ pounds of milk to make one pound of butter.

Dairy Feed.

Mr. Stewart, recently from a trip East, and referring to the question of ensilaging in Oregon, says that he has seen many different plans of storing ensilage in the East, and has given the question some consideration in applying the principle here. He has been advised by Jared Miller, whom he regards as good authority, that ensilaging need not be given the consideration in this State where we have mild, moist winters and grasses are lasting and root crops abundant, as the dairymen have to do in the East, where the winters are more rigorous and the reign of green pastures short.

Mr. Scott: The cheapest green feed for winter forage, as I have found from experience, is a variety of cabbage called the thousand-headed cabbage, which is easily cultivated, producing 25 to 30 tons per acre, and if planted early in the fall will attain hardiness enough to stand our mild winters, practically growing all the while in the field and ready for gathering as needed to be fed to the stock.

Thickness of Human Hair.—Measurements have shown the thickness of the human hair to vary from the two hundred and fiftieth to the six hundredth part of an inch. The silkworm's thread is one five-thousandth. Blonde hair is the finest and red the coarsest. Taking four heads of equal weight, a patient German physiologist found the red one to contain about 90,000 hairs, the black 103 000, the brown 109,000, and the blonde 140,000.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Arcadian Duties.

[Read before an open meeting of Tulare Grange, April 2, 1887, by J. W. Mackie, W. L., and furnished for publication in the RURAL PRESS.]

My brothers, sisters, comrades and friends: I greet you in the name of Tulare Grange, and address you because that privilege has been assigned me and is one of the duties of the office to which I have been elected. I crave your indulgence in advance, as I am but a recent importation into this neighborhood and agricultural pursuits, consequently my experiences and observations in matters pertaining to farm-life and duties are very limited. I am not as well qualified to speak as those who have borne the heat and the burden of the day. Nevertheless, I attempt the honorable, and, in many respects, pleasant task assigned me, like a true Granger, and leave all responsibilities on the shoulders of the Grange.

Peace, tranquillity, happiness, have been the ascribed conditions of life on the Arcadian plains, where nature, reveling in sweetness and purity, greets the farmer at every step. Poets have wasted much paper manufacturing spring poetry and rhyming the praises of every season, month, and day of the year. Insects, birds, flowers, fruits, cereals, and everything which moves, or has root or leaf on the farm, have all been forced to contribute to poetic fancies and illusions. Poetic fancies and illusions, for nearly everything over which poets sing themselves into ecstasies is the enemy of the farmer and destructive of his peace, tranquillity and happiness. Where the poet sees beauty and inspiration, the farmer sees weeds, pests, and never-ending labor. Instead of peace he finds warfare. He is doomed by nature to be a fighting man. He must fight or die. With the uncertain elements, over which he has as yet no control, he wages an unequal warfare, being able only to watch and study their apparent whims and caprices, and take advantage of them. Then he has to fight gophers, squirrels, rabbits, and a host of four-footed pests; and declare war against an innumerable army of insidious insects of every hue, shape, and diminutive meanness. In the heavens above, on the earth beneath, in the waters under the earth and on the earth, are lurking the enemies of the farmer, taxing his wakeful vigilance to the utmost. Farmers must fight. They fight one another. It has become a habit.

But there is a class of enemies the farmer does not or cannot fight. To fight that class demands a cessation of hostility among the farmers; to fight that class requires unity of action and co-operation, which do not exist in farming districts. While the daily never-ending warfare of farm life is going on; while farmers are toiling and contending with natural enemies and with one another, "From morn to noon, from noon to dewy eve," this other class of enemies is watching and waiting for fitting opportunities; a class who, like the lilies, do not toil neither do they spin, and it is questionable whether Solomon in all his glory was ever clothed like one of them. Not finding any necessity for work, not being required to thus waste any time, their thoughts and genius are employed in devising plans to get from the farmers, from their little surplus after the devastations of minor enemies, "all that the traffic can bear." And every year the farmer is surprised to find this little surplus getting less and less, after so much toiling and fighting.

Every one remembers the delight of childhood in following the fortunes of an apple-pie through the tortuous and torturous gauntlet of the alphabet. The fate of farm-produce is similar, say a crop of wheat, which, after animals, insects, the elements, headers, thrashers, warehousemen, merchants, railroadmen, etc., have bit it, cut it, divided it, eaten it, fought for it, got it, and had it, how much is left for the producer? Is it fated that the farmer shall be forever on this daily treadmill of ill-requited toil? Is labor such a pleasant thing, such a thing to be in love with, that the farmer must hug it in his arms and be content with that and nothing more? So content with it that he has no time to destroy pests or fight his enemies, no time to read, no time to cultivate his mind, no time to meet in a Grange, no time for anything but to labor and be robbed? He has something else to do than dance attendance upon meetings, or bother his head with reform movements, or be inquisitive about railroad companies, who know enough to run their own business without his help, or make any special inquiry into the wholesale price of things and how to get goods at wholesale; merchants have to make a living and every one to his business.

How long will such a state of affairs continue to exist? As long as farmers remain isolated and separate, disunited and treacherous to one another, so long will they continue to toil and be robbed. Statistics notify us that farm-owners are growing fewer every year; that the farmers of America are destined to the fate of the sturdy yeomen of Old England, to be like them crushed out of existence. While Uncle Sam has been rich enough to give us all a farm, American independence has had a meaning; but in the near future, and practically *now*, all valuable land has been taken up, and when, at last, Uncle Sam has no more farms to give, when no land can be had except by purchase, then the grinding machinery of moneyed speculators and commercial sharks will be put in more active operation, till the lands will have passed from the hands of the workers into the hands of landlords, as in England, and the manly spirit of American freedom will be buried in the Potter's field of tenantry.

Will America ever become another Ireland? I hope not. I cannot believe that Americans will ever permit it; they will not if ever their eyes can be opened to see the maelstrom into which they have been drawn—drawn by the laudable efforts of individual thrift and industry and anxiety to gain wealth. The accumulative power of wealth obtained is now presenting its evil aspect to us.

Solomon has said: There is a way that appears right unto a man, but the end of that way is death. It is so in the present and prospective condition of the farmer. With the advantages now obtained by capital in the fields of commerce, transportation facilities, in the legislative halls, over the free press and in usury, with the general inertness and passive submission of farmers to the divine right of money to rule, how long will it be before all the business of the country, with all the valuable lands, will be in the hands of a very few men who will virtually be the State itself?

Labor-saving machinery, working on large tracts of land, can produce cheaper and better than on smaller tracts, where such machinery cannot be introduced to advantage, even when the cost does not put it beyond the reach of the small farmer. So the small farmer cannot compete. Year after year finds him going still farther behind in the race, every year still farther handicapped and less able to compete, till, while he is working and wondering what the matter is, his land slips from him and he is left content to pick the crumbs which fall from the rich man's table in the form of tenantry or labor. Is it right that the possibility of such conditions should exist? Is the spirit of independence of so little value that we can afford to see it smothered to death by non-producing capital? Is it even good for the wealthy few that they should be dependent upon the muscular bounty of the laboring poor? Can the bone and sinew of the country be degraded and leave exalted its degraders?

But it is easy to draw the lines of this dark picture to croak and find food for despondency and despair, easy to discourage the coward and hypochondriac—the question now is: What are we going to do about it? "Do about it?" I will tell you—we Grangers are going to give you no peace night or day; we will buttonhole you at every corner; we will invade the sanctity of your homes and by entreaty, by persuasion, by argument, we will compel you to meet with us and devise the remedy. For this meeting together is of itself the first letter in the alphabet of freedom. We must break up this individual isolation, this segregated and separate action of farmers, each one plodding along, the easy prey of designing and selfish men and the victim of his own stupidity.

Ireland is to-day what it is, not from foreign foes, but from internal factions and social jealousies. A united Ireland would have been an independent Ireland. Switzerland and Montenegro are among the smallest of European principalities, but their united purpose and action have enabled them to preserve their independence against fearful odds. United action based on a united purpose will cause farmers to be respected, and less open to the treacherous designs of the parasites who feast and fatten on the farmer. He must get rid of these parasites—not by American concentrated lye, but by American concentrated action and concentrated intelligence. The parasite does not believe that the farmer has intelligence. The farmer has become the laughing-stock of every moneyed fool. Even the Chinaman, in dealing with the farmer, says: "Mellican man alle same foolee man."

How long shall we permit this? When will it cease to be the fashion to associate clod-hopping with ignorance and stupidity? It will not cease until we unite in proving our intelligence, proving it by managing our own business and retaining the fruit of our labors instead of dividing it with speculators and corporations. Intelligence! There is no branch of industry in the world which makes so large a demand on science as farming. The full-fledged farmer must know something of chemistry, mechanics, civil engineering, natural history, physiology, medicine and indeed every department of practical science; and the more he knows, the more successful as a farmer he is likely to be. The natural education of the farm compels him to be a walking encyclopedia. It is disunion, and disunion only, which makes the farmer a fool and the easy prey to united capital. It is slavery to the farm, isolation and the not meeting together and co-operating, that consumes so much time that we have no time to attend to our best interests. It is short-sighted selfishness that prevents combination. Whereas, by united action, the farmers can control all transportation facilities and place their produce where it is most wanted at the right time. By united action they can get its full value. By united action we can make all the laws referring to our interests by sending practical farmers to Congress and the Legislature, instead of professional politicians and broken-down lawyers, who cannot make a living at their own profession, and whose interest it is to make laws as obscure and ambiguous as possible. By united action the farmer can impress his natural and naturally acquired intelligence upon the character of the State, and make every institution in it jubilant with life and spirit derived from the whole-souled, great-headed and muscular farmers of California.

Friends, to-day let us take one step forward on the works of the enemy; let us counsel one another as to the best means of effecting a combination of farming interests, whereby we can have the best tools at the least expense, the best produce with the least waste, and all the happiness, comfort and independence to which the farm is entitled. To facilitate this movement, Tulare Grange invites you into her councils and membership, to take part with her in advertising to the world how noble, intelligent, and self-reliant farmers can be, and that they are the backbone of the country, and mean to be, as they should be, its head, heart, and hand.

Come into the Grange, where our wives, sisters, and sweethearts can participate, by whom our cruder ideas are mellowed and refined, and made fit to appear in company, by whom our courage and flagging spirits are revived and warmed into enthusiasm, and who prevent us from flying off at a tangent into wild schemes of only visionary importance; whose deeper insight, purer spirituality and intuitive quickness of perception keep us continually in the safe paths of wisdom, in spite of our more ponderous caliber. These sisters invite you, and you will deem it a privilege to be so associated, and the day of your initiation will be ever remembered as a red-letter day in your life and the turning point in your better fortunes.

[We have also received a report of the other proceedings of the meeting at which the foregoing essay was read, but, for lack of space, are obliged to defer its publication until next week.—EDS. PRESS.]

Memorial Services.

At a meeting held to pay the tribute of fraternal regard to the late Mrs. Runyon, the memorial committee of Franklin Grange reported as follows:

Worthy Master, Brothers and Sisters: Your committee, to whom was assigned the sad and sacred duty of preparing resolutions in memory of Sister Mary K. Runyon, beg leave to submit the following for your approval and adoption:

WHEREAS, In view of the loss we have sustained by the death of Sister Mary K. Runyon, and of the still heavier loss sustained by those who were nearest and dearest to her; be it

Resolved, That it is only a just tribute to the memory of the departed sister to say that in regretting her removal to a higher Grange, we mourn for one who was in every way worthy of our respect and esteem.

Resolved, That we sincerely sympathize with the bereaved husband, sons and brothers, and realize that they have lost a loving and devoted wife, mother and sister, and commend them for consolation to Him who orders all things for the best, and whose chastisements are meant in mercy.

Resolved, That a copy of these resolutions be spread upon the minutes, and a copy be sent to the family, the *California Patron* and the RURAL PRESS for publication.

MRS. E. S. JOHNSTON,
MRS. H. P. FLEXMAN,
MRS. S. G. BRADFORD,
Committee.

In moving the adoption of the resolutions, Mrs. E. S. Johnston said: "Sister Runyon became a member of the Patrons of Husbandry in Franklin Grange, No. 147. The Grange was in its infancy; she was with us in our most palmy days; she also stood by us when trouble seemed hovering over us, feeling a deep interest in the farmer's common cause, and we have no reason to doubt her loyalty to the last. Our sister was sadly and severely afflicted with a long and lingering illness; but she bore it all with a cheerful, Christian fortitude that it would be well for us to imitate when the hand of affliction rests heavily on us. It was my privilege to visit her in her sickness, and I have never ceased to admire her courage and patience through it all. To her children I would say, follow her bright example; put your trust in Christ who died for you and her. To her husband I would say, hold fast to the faith you have acknowledged and all will be well in the end."

The other members of the committee also added words of eulogy and sympathy.

GRANGE ITEMS.—The *Patron* mentions that an open meeting is to be held today, April 16th, at Point of Timber Grange, Byron, where addresses are expected from W. M., Johnston and W. L., Flint; that Enterprise Grange also is to have its annual reunion today, 16th; That in the death of O. S. Freeman, in the 72d year of his beneficent life, Elk Grove Grange realizes the loss of a good Granger, a kind, genial neighbor, and a good citizen; that the officers of San Joaquin Pomona Grange (a list of whom, as elected, was given in the PRESS of Dec. 4th last), were recently installed, all being present but the G. K., Bro. Sollers.

GRATEFUL TO BRO. OHLEYER.—The Yolo Board of Supervisors last week voted Geo. Obleyer $300, as that county's proportion of the expenses he incurred in making two trips to Washington and carrying on the anti-debris contest in Congress.

The Sad Ending of a Secret Society to Which I Once Belonged.

[Written by ANITA M. DEWEY.]

Several years ago two other girls and I, having heard of the good doings of certain clubs, resolved to form one. For this purpose we held our first meeting at the house of one of our members. Considerable business was done at this meeting, such as adopting a name for the club, making badges, electing officers, agreeing upon a password and the rules and regulations to be observed by the club. The officers elected were president, secretary and treasurer. I was elected secretary — which proved very unfortunate, as will be seen farther on. Having this office, I had the pleasure of copying all the rules, regulations and secrets, and the minutes of each meeting in a book kept for the purpose.

Certain boys being very inquisitive—as boys usually are—determined, if possible, to find out all the secrets and doings of this club; so whenever we were met by any of these boys on the street, we had to undergo a certain amount of questioning before we could go on our way in peace. The boys being unable to gain any light on the subject in this way, determined to watch their chances for getting hold of the club-book. For this purpose my brother—being one of these boys—kept close watch to see where I put the book, after club-hours. They were soon gratified by my carelessness.

The club, having had a meeting at my house, decided, after closing, to go out in the yard for a game of croquet. Without thinking, I left the book on the piano in the parlor. My brother, having kept good watch, went immediately into the parlor as soon as we went out. Seeing the book, he picked it up and read it through. It is needless to say that in a few days the book was shown to every boy in the neighborhood, and that was the end of that club.

After awhile we formed another club, this time taking the boys into full membership, thus following out the noble example of the founders of the Grange, when they opened wide their doors to woman. This proved a success. It still lives and is flourishing. I am *not* secretary, but have often been asked at home, whenever clubs have been mentioned, if I would not like to act as one. I think some clubs accomplish much good, providing they elect a good secretary.

NOTE. Read at the Harvest Feast of Temescal Grange, Oakland, March 19th.

Grangers' Business Association.

The annual meeting of the Grangers' Business Association was held in this city April 13th. Daniel Inman, who has for several years been president of the association and has rendered excellent service, declined re-election to the Board of Directors, and the stockholders' meeting adopted resolutions expressing much regret at his retirement and esteem for his past efforts in the interest of the association. The following were chosen Directors for the coming year:

A. D. Logan, Colusa; A. T. Hatch, Suisun; J. W. Mitchell, Turlock; Charles Wood, Danville; E. W. Steele, San Luis Obispo; J. C. Campbell, Maxwell; J. C. Merryfield, Dixon; Th. Upton, San Jose; T. E. Tynan, Modesto; S. E. Biddle, Hanford; I. C. Steele, Pescadero.

Business for the past year was stated, and the report of the manager, E. Van Every, was received with considerable gratification by the numerous stockholders, as it shows the house to be one of the most flourishing institutions on the coast. The profits of the business were large and on every hand an increase in the various departments is shown. During the season, the warehouse has received grain far in excess of its capacity, and in order to accommodate its numerous customers, the association has been compelled to construct an addition, in the shape of a shed 625 feet long—running the entire length of the building. The small percentage of loss on the extensive business transacted is a source of great gratification to the stockholders and a credit to the management. This house, by its constant attention to the interests of its agricultural patrons, has of late become very popular with the farmers of our State, and is now receiving its reward by the extensive patronage accorded it.

The directors organized by electing I. C. Steele, president, and re-elected A. D. Logan, vice-president, and Chas. Wood, secretary.

SONOMA POMONA GRANGE.—The meeting of the Pomona Grange, to be held at Santa Rosa on Wednesday next, April 20th, promises to be very enjoyable. The following program is announced: 1, music; vocal quartette, by members of Sebastopol Grange; 2, address, by J. P. Whitaker, of Bennett Valley Grange; 3, select reading, by Miss Fanny Gamble, of Santa Rosa Grange; 4, vocal solo, by Mrs. G. W. Huntley, of Sebastopol Grange; 5, address, by Hon. S. M. Martin, of Two Rock Grange; 6, vocal quartette, by members of Sebastopol Grange; 7, address, by S. T. Coulter, P. M. of State Grange; 8, suggestions by members for the Good of the Order; 9, closing song, by the Grange.

GRAND JOINT PICNIC APRIL 23.—The great picnic in aid of the Gridley Monument Fund, of which mention was made in the RURAL of 2d inst., is to be held at Good Water grove,

Stockton, Saturday, April 23d. General admissions have been fixed at 50 cents. Public-school children under 12 years of age will be admitted to the grounds for 10 cents. The members of the joint committee seem very enthusiastic in their work, and bound to beat the record on picnics.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

The President has appointed the members of the Interstate Commerce Commission. The lawyers are well represented, but it is to be hoped that they will act fairly, and administer the new law in the best interests of all concerned. It has been interesting to note how many conventions and meetings of railroad officials have lately been held to "interpret" and "construe" this law. These meetings have been held in all parts of the country, and railroad lawyers and attorneys have, of course, "interpreted" and "defined" the law in as "favorable" a light as possible for the corporations affected. It would be well if the farmers, who, *most of all*, are interested, would also hold meetings and discuss the Interstate Commerce law. Every Grange could profitably make it a subject for consideration for several meetings, study it thoroughly, understand *all* its provisions, and so become armed with the weapons of *truth* and *knowledge*. Already the signs seem to point to efforts being made to have the law appear ridiculous, to make it oppressive, to keep before the public its "hardships," etc., and, without doubt, for some time at least, many complaints will be announced by the assertion that "It is all the work of the Interstate Commerce law."

The favorable action of Congress on the Interstate Commerce bill has stimulated the people, and particularly farmers, to make new exertion, with a hope for permanent and final relief from unfair and unequal management of railroads. The "Farmers' Assembly," of Virginia, in its session of February last, was outspoken in this direction in its platform so unanimously adopted. A few planks from this platform are of general interest, and are worthy of adoption and action by the farmers of other States as well.

Section 3 reads; "That railroads are highways opened by the laws and authority of the State for the convenience and reasonable accommodation of the people of the State, and are not made solely for the pleasure or benefit of the corporations who operate them; that the State in granting such franchises acts as a trustee for the people of the State, and as such trustee is bound to see that the terms of the trust are strictly carried out, and whenever there is an effort on the part of such corporations to use their franchises against the fair interests of the people of the State, then it becomes the duty of the State by proper legislation to interpose for the protection of her people. We therefore demand that the Legislature of the State shall pass such laws as will prohibit discrimination by railroads between localities and individuals, requiring the publication of their tariff of rates, and enforcing these and other measures of needed relief by adequate penalties and agencies."

Section 4 says: "That we indorse the measure lately passed by Congress, known as the Interstate Commerce bill, as a step in the right direction, giving the producers and shippers of the country this measure of relief; that the power to discriminate between persons and localities claimed by railroad managers, their lobbies, agents and attorneys, is but another device for taxing one class for the support of another; that neither the State nor the Federal Governments possess such power, and are therefore incapable of delegating it to the railroads; that the exercise of such a power by the creature of the State is, in effect, to take value from the land and products in one section and bestow the same value upon another."

"We call upon our State Legislature to be vigilant in restricting, with proper limitations, the charters to be hereafter granted to corporations. Charters to railroad companies should rigidly restrict them to the business of common carriers; they should be prohibited absolutely from owning, directly or indirectly, real or personal property other than that actually necessary for their business of common carriers. We regard the system now practiced by certain railroad companies of buying up, so as to monopolize, the coal and other mineral lands of the country, as pregnant with the greatest evil; to corner *fuel* would be scarcely less disastrous than to corner *bread*, and would place the consumer at the mercy of monopoly in the price to be paid for this necessary of life."

After thus plainly stating their position on these and other important questions affecting the interests of their State, these Virginia farmers say in their platform: "We hereby express our unalterable determination to support no man who will not aid us honestly and faithfully in obtaining relief from the grievances complained of. * * * While disclaiming any affiliation with extremes, we invoke the assistance and co-operation of all laborers, whether in the field, factory or elsewhere, and ask that such unite with us and make a common cause against a *common enemy*."

PROGRESS.—*Fourteen more new Granges.*

Reports of Grange work and progress in Virginia are full of encouragement. A number of Granges have been reorganized, and new members are being heard from.

IT is to be regretted that the dates of the two Grange picnics, at Clements and at Danville, come so close together—the former on the 6th and the latter on the 7th of May. This near succession was not intended, and may debar some from attending one or the other. On future occasions, perhaps, the like may be avoided by more general consultation ere the day is set.

MORE GRANGES IN TULARE COUNTY.—Brother Overhiser reports another Grange preparing for organizing in the school district, six miles west of Tulare city. The farmers in the "citrus belt" near Visalia are also desirous of reorganizing. Visalia should also soon have a strong Grange reorganized.

TEMESCAL GRANGE will confer the 3d and 4th degrees, meeting at 2 o'clock to-day.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

SWEETS IN A SANCTUARY.—Oakland *Enquirer*, April 8: The carpenters at work on the Catholic church at West Berkeley, last Monday, discovered a beehive in the north wall, near the eaves. There is a space of about 16 inches between two of the ornamental columns in which the bees had made their cells and built layer upon layer, until the hive appeared to be the result of the labors of years.

Amador.

FORMING AN AGRICULTURAL SOCIETY.—Jackson *Dispatch*, April 2: A meeting of citizens, including a goodly number from Ione City, Sutter Creek, Plymouth and other towns in this county and a few from Calaveras, was held at the Courthouse last Saturday to take steps toward organizing a District Agricultural Society. A constitution was adopted and signed by over 100 of those who wish to become members of the society. The question of locating the fair grounds caused quite an animated discussion between the representatives of the different towns, the Ione and Jackson delegations doing most of the talking. It was finally agreed that a committee consisting of E. Ginocchio, of Jackson, B. Isaacs, of Ione, E. S. Barney, of Drytown, C. Gardello, of Mokelumne Hill, and H. A. Messenger, of Messenger's ranch, be authorized to select the place for holding the fair and to name eight persons to be recommended to the Governor for directors, and report at a meeting to be held in Jackson on Saturday, the 9th.

Butte.

A CITRUS SUCCESS.—The Oroville *Mercury* says of the Citrus Association's orange orchard which was planted last year: Not a leaf in the entire 30 acres has been hurt with cold, and but a few dead ones have been found. The grove, at this writing, is one of the loveliest sights in the State, and is being enlarged and becoming more beautiful every day.

CHICO CANNERY.—*Enterprise*, April 8: As far as Chico and vicinity is concerned, the fruit crop is unusually large. The Rancho Chico cannery is preparing for a big pack. Men are busy all the time making cans, and there are about 100,000 now on hand. This cannery last year put up all the surplus crop on the Rancho Chico, and bought the products of other orchards as well. Canned fruit of last season's pack is being shipped East from Chico constantly. Yesterday a carload lett for Chicago, and the day before one left for Kansas City. The supply is almost exhausted.

Calaveras.

FOOTHILL ORANGES.—April 5th, Capt. J. W. Tyler, of Jenny Lind, Calaveras county, brought to the Stockton *Independent*, samples of oranges raised on his place in the foothills. The oranges were large, sweet and delicious, and compared favorably with the choice varieties of Southern California. The trees on Capt. Tyler's place were seedlings and are now nine years old. They grew without any shelter and were always exposed to the weather.

Contra Costa.

ORANGES IN SAN RAMON VALLEY.—Martinez *Gazette:* "I. H." states in the RURAL PRESS that the people of San Ramon valley make no claim to being in the citrus belt. If they do not, they ought to. Having been raised there, the writer can assert, with the knowledge of over 25 years' experience, that no climate in this county, and, so far as his wanderings have been, in this State, is more uniformly mild than that of the San Ramon valley, reaching from Walnut Creek to Danville. It is a little paradise, and if oranges won't grow there, the climate in the Garden of Eden was altogether too frigid for producing semi-tropical fruits. We have in our mind's eye a certain orange tree in Mrs. Van Patten's charming garden whose succulent fruit we tasted 'way back in our early boyhood days, and we can't be made to believe that oranges quite so sweet and all-persuasive as those were have ever been grown anywhere since. That orange tree has flourished and bloomed and borne its golden fruits year after year for almost 20 years—a solitary but convincing witness of the Edenic climate of the beautiful San Ramon valley.

Humboldt.

HAS FAITH IN THE INCUBATOR.—*Standard:* Geo. Gibson, of Worthington Prairie, is going into the poultry business on a large scale. He has an improved patent incubator in service, and the chicks are coming in flocks. One hatching resulted in an increase of about 100 chickens, and about 20 dozen eggs are now in process of hatching. The venture ought to be remunerative.

Lake.

EDITORS PRESS:—In our county we have a fine prospect for a good crop of grain and hay. The outlook for fruit, also, was never better; prunes, peaches, apricots, almonds, pears, olives, all promise an abundant yield. Alfalfa looks as well as we could wish. Sheep are doing well and promise a good clip of wool this spring. The grape is likely to pay well in the near future. The two samples of wine I send you were pressed from the grape last fall by George Thorington, of Lakeside Ranch, six miles north of Lakeport. The light claret is made from the Zinfandel and the white from the Reisling. The grapes grown on Mr. Thorington's land give a very high percentage of sugar, which will produce a fine quality of wine or raisins. Real estate is looking up in Lake, as we expect soon to have cheap and quick transit to your city by rail. We will say in conclusion to the Easterner, looking for a little home where he can spend the rest of his life in peace and happiness, where crops never fail, where the climate is mild and everybody at peace: come to Lake.—A. H. POE. [We received the two samples mentioned by our correspondent, and they seem to us to be good of their kind; but we do not profess to be judges of the article.—EDS. PRESS.]

Lassen.

WINTER LOSSES.—The *Stockman* learns, from parties lately in from Susanville, that the death rate among cattle is greater this year than for years previous. In the vicinity of Fort Sage, Long valley, hunters report seeing large numbers of dead cattle on the range, and the stench from the decaying animals which greets the nostrils of travelers in that section gives credence to their statement. Further north the loss has not been so great, as the stockmen, with few exceptions, succeeded in driving their cattle to places of safety, where they were fed as long as the snow remained of any considerable depth. Levy & Alexander, at Horse lake, are said to have fared the worst, but as they succeeded in buying considerable hay, paying $10 a ton, it is thought their loss will not be so great as was first reported. Within the past few weeks the grass has started up, and the people look forward to a prosperous season.

Los Angeles.

RESPONSIVE TO GOOD TREATMENT.—Anaheim *Gazette:* F. H. Keith has 1½ acres in orange trees, which are well taken care of and fertilized. As a result, he harvested 400 boxes of fruit from this little bit of an orchard, making a net profit of something over $600 an acre.

Mendocino.

THINNING THE COYOTES.—*Dispatch and Democrat:* R. L. Simmins, of Little Lake, made a lucky shot recently which netted him $15, but the sheep-growers thereabouts gained more than that amount, for the coyote he killed would have soon been the mother of seven puppies. The animal's scalp was delivered to the county.

Napa.

SEEDS FROM ASIA.—St. Helena *Star:* Miss L. Kelley, late of India, has made Mr. and Mrs. Elwood a very important present—nothing less than an assortment of different seeds indigenous to India. There are 36 kinds, among them chuna, the principal horse-feed of that country, and dal, a grain that forms a staple article of food of the people. Some of these have been planted and are now growing. Great pains have been taken to make their growth a success. Some have been sent to the State University, and another lot to A. R. Meserve, of Pomona, who is a very careful cultivator. This gives a wide range for trial, and we hope to know the probable successful varieties this season.

San Benito.

MENDING A HORSE'S LEG.—Hollister *Advance:* W. I. Reed's pet colt, under treatment for a broken leg, is progresing favorably. The injured limb was set and placed in splints, and the whole surrounded with plaster of paris. The animal is kept in such a position as to be unable to move the limb, and seems to understand just what is required of it. Animals with broken legs are generally killed, but Mr. Reed proposes to show that there is no necessity for such action.

San Bernardino.

A NOVELTY IN ORANGES.—*Valley Echo:* J. E. Cutter put an orange under the editorial proboscis, and said: "What does that smell like?" We thought it reminded us of soda-water somehow, and finally replied, "Pineapple." "Correct," responded Mr. C.; "it is a Florida pineapple orange." It was our first experience of an orange with a decided pineapple flavor.

San Diego.

MOUNTAIN APPLES.—San Jacinto *Register*, April 7: Wm. Hicks, a pioneer farmer of San Gorgonio mountains, was in town last week with a load of fine potatoes. He has one and a quarter acres set out in apple trees, which yielded 13,000 pounds of apples last season. Some specimens were as choice as any we ever saw on Front street, in San Francisco, and prove that our high mountains are adapted to raising this fruit. Mr. Hicks cannot raise too many of the kind of apples that we had the pleasure of eating last fall, and we hope he will go into the business on a larger scale.

San Luis Obispo.

A PLACE OF PROMISE.—San Luis Obispo *Tribune*, April 8: Corbley Johnson is located a few miles from Adelaide, and the remarkable growth of vines and fruit trees on his place has several times been noted in the county papers. While his attention has not been specially devoted to fruit-raising, he carrying on diversified farming, he has about 150 bearing fruit trees—apple, peach, plum, etc., all of which have done remarkably well. Grape-vines last year grew 28½ feet during the season; fruit trees two years old, girth 18 inches; gooseberries and Lawton blackberries show a growth of 16 feet during the season and were loaded down with berries. His ranch is about 1200 feet above the sea. There was no frost there this year sufficient to kill tomato-vines until February. Figs, almonds and oranges thrive; and, with the present railroad communication and the chance for a market, fruit-raising will be generally and largely undertaken in that vicinity.

San Mateo.

COLMA CABBAGES.—*Times and Gazette*, April 9: Residents of the First Township who own, or lease at reasonable rates, the fine cabbage-land of that section are experiencing a "boom." As high as $800 an acre has been netted by farmers of the Colma vicinage. The price per 100 pounds was $1.50 during the winter, and is now $1.40, at the railway station. Chicago, Minneapolis, Burlington and many other towns East are glad to have San Mateo county cabbages at an advance upon the selling price here, plus the cost of freight. Redwood City gardens have sent several carloads, while the eastward output from Colma has been continuous for many months. Of course, over-production may cause the supply of cabbage to so exceed the demand that present prices cannot be maintained; but we are assured that there would be money in cabbages at even 50 cents per cwt. Cabbages weighing 40 pounds each are now raised on land that has grown cabbages for over 20 years. An acre of fair cabbage-land produces from 20 to 30 tons. At even 50 cents per cwt. a 20-ton acre will net $200.

HORTICULTURAL COMMISSION.—At the supervisors' meeting, April 5th, a letter was received from Inspector Klee, calling attention to the need of immediate action to rid the county of the fruit pests now infesting many orchards. Thereupon, the following were chosen commissioners: Dr. L. D. Morse, of San Mateo; W. J. McNulty, of Woodside; Alex. Moore, of Pescadero. The clerk was instructed to notify those gentlemen of their election, and to request them to meet at the office of Dr. L. D. Morse on the 11th instant for organization and for districting the county. The board fixed the salary of the commissioners at five dollars a day for each member, provided that the aggregate days' work paid for to each member should not exceed 50 days in the year.

Sonoma.

ACRES OF BLOSSOMS.—Petaluma *Courier*, April 6: Cherry valley is something beautiful to look at at the present time, with its 5, 10, and 20-acre orchards in a solid mass of bloom. They resemble immense bouquets of white, pink and red blossoms. These little orchards are among Petaluma's brightest spots, and the cherries, peaches, apricots, plums, prunes, pears and apples are grown as fine here as anywhere in the State. This gives one an idea of what the colony system is, with little cottages, fruit-houses and barns, nestling in the orchards on the knolls and sunny slopes, and is a most peaceful and pleasant sight. The outlook at this season of the year was never better for a large yield of fruit.

Stanislaus.

RIVER FREIGHTS.—Grayson Cor. Modesto *Herald*, April 5: The San Joaquin river is at last in a fair boating stage, and the steamers and barges are getting the wheat storage along the river out rapidly. Freight is very low, owing to a fight between the boat companies. I understand they are carrying wheat at one dollar per ton from Hill's Ferry to Port Costa. They may be able to make money at that rate; if so, what did they make heretofore, when it was three dollars per ton? In early days here, in 1872, I have known freight to be six dollars per ton from Patterson's to San Francisco. This shows the march of improvement in handling freight, or else they were making fortunes then or losing money now. It may be rough on the boats, but it is good for the farmers.

Tulare.

FINE FRUIT AND GRAIN PROSPECTS.—*Tulare Times*, April 7: On Tuesday we received a sample of wheat and barley from a 200-acre field on the ranch of Stockton Berry, east of the Eighteen-Mile House and on the plains. The barley is three feet eight inches in hight, well headed and has a good growing color; the wheat is equally good-looking. It was raised on summer fallowed land, and its fine growth is attributable to thorough cultivation. Wm. Mehrtens and John Tuohy, neighbors of Mr. Berry, also have fine fields of wheat. A light shower of rain only will be needed to cause this grain to fill and make a large yield. * * * All fruits are early this season and setting well on the trees, promising one of the largest crops ever borne. The apricots are large already, and in a week or two should be thinned by the growers.

PREPARING TO CAN AND DRY.—The Visalia canning, fruit-drying and raisin-packing establishment will be ready for active operation as soon as the fruit season opens. The promoters of this enterprise propose to make a reputation for its products second to none in the State. Growers will be required to deliver at the cannery good merchantable fruit. To get such a grade, little care on the part of the grower is necessary. Good cultivation of the land and proper thinning of the trees will bring it.

Yolo.

REMARKABLE EGGS.—*Democrat:* Samuel Hiller has brought us a gigantic egg, which was laid by a hen on his ranch. The egg measures 8½ inches in circumference, and is a day's work of which any well-regulated hen might justly feel proud. It is on exhibition at this office. We have also seen, at Simpson's bakery, a curiosity in the shape of an egg within an egg—a small, perfectly formed egg about the size of a marble clinging to the shell of the outer egg.



Dewy Eve.

[Written for the RURAL PRESS by JOHN TAYLOR.]

Lazily the smoke doth rise,
Deep'ning shadows o'er darkening skies;
The crimson west proclaims the night,
A rest for man from his daily fight.

Come, dewy eve, with golden ray,
True lovers turn to thee alway;
Thy mantle hides the blushing rose,
And blesses life with calm repose.

The storms of time now quiet down,
No angry thought nor troubled frown;
A benison falls like an angel's psalm,
As evening sheds her holy calm.

Sweet hour of peace! why fly away
To usher in the god of day—
With all its troubles, stern and dire,
A crucible worse than refiner's fire?

Oh stay, thou sacred dewy eve!
'Tis heaven on earth; why shouldst thou leave
Poor, wounded hearts to bleed and die,
Changing from soft to frowning sky?

Ever on earth this change must be,
From darkening night we cannot flee!
Eternal morn will come apace,
And rest will follow life's fitful race.

Mt. Pleasant, April 7, 1887.

Bonnie Lassie.

[Written for the RURAL PRESS by HOONOS.]

"Then don't be sorrowful, darling,
Don't be sorrowful, pray;
For taking the year together, my dear,
There isn't more night than day."

Stopping his plow, a sturdy young man turned toward the house from which came the sweet girlish voice. There stood the singer, vigorously wielding the broom, not more than 50 yards away. She soon discovered that she was being watched. Laughing and shaking her broom at him, she called: "You'd better be at work, Bobby boy," and then inconsistently ran to speak to him.

"Good morning, Lassie," said the plowman, coming to the fence to shake hands with her.

"Good morning yourself," she answered saucily, tossing back her curls. "Father didn't tell us you were coming to work this morning. O dear! That will be one more to cook and wash dishes for. How long will it take to plow this field?" With a teasing look, as though she were not delighted to see him. Then, with a sudden change of tone, she told him of a book she had just been reading.

"Now go to work, naughty boy," she added; "*I've* got to. The idea of idling here when you have all that cornfield to plow!"

With a backward, saucy look, the girl ran singing into the house, leaving Rob, with a bright smile on his face, to continue the interrupted plowing.

The checked shirt and blue overalls did not hide Rob Raymond's manly, well-built form; and the wide hat, set far back on his head, exposed an honest, steadfast face, with earnest, hazel eyes, a firm but pleasant mouth just shadowed by a young mustache, and a square, determined chin. It was not a handsome face, but one would trust it instinctively.

Lassie's real name was Douglas, after her mother's favorite brother. Though disappointed that Lassie was "only a girl," she was determined to give her the name anyway. "We'll name her Douglas, anyhow, father," she said to her husband, "and call her Lassie."

And "Lassie" she was from that day, and the name well suited the saucy, willful, lively girl. Merry blue eyes, a nose inclined to be celestial, a sweet mouth whose constant smiles disclosed even, white teeth, a dimpled chin, all framed by the pretty brown curls, made up a face which was called the "prettiest on the creek."

Lassie and Rob had been friends and lovers since babyhood. Their parents had crossed the plains together and settled about five miles apart in the beautiful valley drained by Mark West creek. Now Rob's parents were dead, and the four boys, of which he was youngest, were separated. One had gone to sea, another studied law, the eldest tilled the home farm, and Rob was laying by what money he could earn by working out, to buy land for himself some day.

"And then, Lassie," he used to say, "I'll build me a pretty little cottage, and I'll go to housekeeping, won't I?"

"I don't know, I'm sure," would answer the teasing girl. "Will you invite me to the wedding?"

When Rob would cast a reproachful look at her, she would make a saucy face at him and run away. They were not engaged, and hardly knew they loved each other; yet whenever they thought of a home of their own they unconsciously thought of each other.

Lassie sang all the morning, that pleasant April day, as she helped the children get ready for school, churned the butter, made the beds and assisted her mother in preparing dinner. When her father and Rob came in from the field, she peeped out of the door and saw that Rob alone stooped over the sink, washing his hands. Seizing a dipper, she filled it from the bucket by the door and sent the water splashing over Rob's brown head. How she laughed as he sputtered and shook himself! At the familiar sound, Rob looked up and started after her. Lassie ran, but was soon overtaken and caught in a pair of strong arms. She hid her face, but with one brown hand Rob held both of hers and kissed her soft cheeks until they glowed.

"There!" he cried, letting her go at last, "take that for your sauciness! You can duck me again if you want to."

"No, I *won't!*" She pouted, stamped her foot, and seemed ready to cry. "You're a bad, hateful boy, Rob Raymond, and I don't like you one bit!"

She marched into the house with great dignity, but was not much comforted by her father's laughing "Served you just right, Lass." The spoiled child ran upstairs to smooth her ruffled curls and temper, and in a few minutes came down and ate dinner as though nothing had happened.

Such quarrels were frequent between the two. But as it was usually her fault if Rob kissed her, Lassie never stayed angry long. As she was only 16 and Rob 19, the old folks looked on them as children yet and thought nothing of their romping and quarreling.

After supper, Rob came into the kitchen and offered to wipe the dishes for Lassie.

"No indeed," laughed the girl; "I won't have a great lazy boy around to bother me. Mother, make him go 'way and behave himself."

Mother only laughed and left them together, well knowing that nothing would displease Lassie more than to have Rob leave.

"Ah, now, please let me stay," begged Rob. "I'll be real good. Mother McLane doesn't care if I stay."

With that he seized the dish towels and tucked them under his arm.

Lassie shrugged her shoulders and yielded, as she always did, at last.

"Oh, well," she said, in a resigned tone, "if you will stay, you will, and I can't help myself."

"Poor girl!" murmured Rob, "I'm awfully sorry for you. I say, Lassie," said the gallant dish-wiper, as they put away the last tin, "they're going to have a grand time at the picnic, Mayday."

"Is that so? Are you going, Bobby boy?"

"If I can prevail on your majesty to accompany me," and Rob made her a most elegant bow. "Bonnie Lassie, will ye gang wi' me?"

Neither Rob nor Lassie was Scotch, but he often tried to tease her about her name.

"I dinna ken," answered the provoking girl. "You'd better bide a wee, till I ken my ain mind. And while you're about it, do talk 'United States,' as Frank says, Bobby boy."

"I will, when you quit calling me 'Bobby boy.'"

"And I'll quit *that* when I get ready," with an emphatic nod of the willful head.

The silence that followed was impressive but short.

"Say, Lass," began Rob, "you haven't said whether you'd go to the picnic with me."

"I don't know. Frank may want me to go with him."

"Bother Frank! Do you suppose he'd want to go with his sister? Not much. He'll take Laura Mathews."

"*You* take Laura," coaxed Lassie, "and I'll go with Frank. Or perhaps you'd rather take Jennie Bennets."

"Don't you *want* to go with me, Lassie?" asked Rob, reproachfully.

"I heard that you said Jennie was the prettiest girl on the Creek," said Lassie, irrelevantly.

"Nonsense! Why, you know that *no one* in all this valley is half so pretty as you—bonnie Lassie," tenderly.

"Don't be silly, Rob," said the girl, smiling and dimpling with pleasure; for the rumor that Rob cared more for Jennie than for her had hurt her more than she would confess.

They went out on the porch to wash their hands. The moon shone softly upon the field of growing grain that sighed in the light breeze; upon the brown earth in the cornfield where Rob had been plowing; upon the lovely hills which surround the valley; and upon the rugged hight of St. Helena, which rises beyond the hills.

"How beautiful!' said Lassie, softly.

"Beautiful!" echoed Rob, letting his eyes wander from the moonlit scene to the girl's face, which shone spiritual and tender in the silvery light. He came nearer to her, irresistibly drawn by the sweet face. But that broke the spell, and with a laugh she flirted some water in his face and then turned to the roller towel which hung near.

"Lassie, will you go with me Mayday?" pleaded Rob.

And Lassie, with feigned reluctance, answered "yes," as she had intended to all the time.

* * * * * *

Mayday dawned bright and clear, and Lassie was as happy as a lark. For the weather had been cloudy and threatening, and she had feared she would miss the annual gathering.

In her pretty blue lawn, the girl reminded one of the shy, delicate nemophilas which tint the meadows. Rob looked his admiration when he drove up and found her in the garden, fastening a big bunch of pink roses in her belt. He begged for one bud, and being in an indulgent mood, Lassie pinned the prettiest one she could find on his coat. Years afterward she found this bud between the leaves of the little Bible Rob's mother had given him on her deathbed.

"There go the Wilsons," cried Lassie, waving her hand to a wagon-load of young folks, as she and Rob drove down the lane into the road.

"And there is Jennie with Charley White," said Rob, with a sly laugh.

Lassie blushed, and, to change the subject, asked if she might drive. Rob, who would have given her his head if she had asked for it, surrendered the reins at once.

"Ah, bonnie Lassie," he sighed softly, "how could you suppose I admired any one more than you?"

Lassie's cheek dimpled, and the relentless tease proceeded:

"But Jennie *is* a pretty girl. Such soft brown eyes, such a straight nose, such a smooth chin, and such glossy black hair in those pretty braids!"

By this time, Lassie was pouting and frowning most alarmingly. Seeing she was almost ready to cry with vexation and wounded vanity, Rob relented. The hood of the buggy hid them effectually, so Rob put his arm around her.

"Lassie," he whispered, "brown eyes have no charm for me while blue eyes smile on me kindly. Ah, don't shake those pretty curls over your sweet face. Let me kiss that dimpled chin—"

"Rob, Rob!" cried Lassie, struggling to free herself from his arms. But she was driving, so could not use her hands. "Let me go; some one will see us. Oh, let me go! I'll *hate* you if you kiss me. There!"

Dropping the reins, she dealt Rob's cheek a stinging blow. He let her go and grasped the lines just as they were sliding out of the buggy.

They rode on in silence. Rob's cheek burned as much from anger as from the blow. Lassie's eyes flashed dangerously. Both looked straight ahead, completely ignoring one another.

"You needn't have got so mad for such a little thing," growled Rob at last.

"Little thing, indeed!" snapped Lassie, taking refuge in fierceness to keep back the tears. "You wouldn't treat me so if you had any respect for me. It is perfectly contemptible of you to use brute force in that way to get a kiss."

"I didn't know you felt that way about it," said Rob more meekly, "or I'd have let you alone. But as for its being contemptible—I don't think it's contemptible to kiss a pretty girl any way you can."

"It *is!*" cried the indignant girl. "It is shameful to take advantage of inferior strength in any way."

"And you needn't think," continued Rob, not heeding the interruption, "that my kiss showed any disrespect for you. You looked so sweet and kissable that I couldn't help myself. I am but human, dear; and as for respect—why, Lassie, I respect you as I do the memory of my dear mother."

Mollified by this double compliment, Lassie consented to smile on him once more. As the truce was sealed by a hearty hand-clasp, they entered the picnic grounds.

Who has not been to a country picnic? The rosy-cheeked May queen, the songs and speeches by awkward boys and bashful girls, are familiar to all.

The grove commanded a beautiful view of the valley with its oak-dotted grainfields, its vineyards and orchards, and its numerous comfortable farmhouses. Through this peaceful scene the creek could be traced by its fringe of living green; while far in the distance the view was bounded by lofty hills clad in a mantle of majestic redwoods.

But the young folks, after lunch, careless of the view, impatiently waited for the tuning of the fiddle. When the merry dance tune at last rang out in the pure, sweet air, there was a hurrying to and fro, hunting partners. Rob sought everywhere for Lassie, and at last found her demurely flirting with a bright-faced young man, quite a distance from the platform. She pouted when told that the first set was forming, and went with Rob with such seeming reluctance that his sunny face was disfigured with a frown.

The scowl soon deepened, for, strangely enough, Lassie couldn't manage to keep any other dance for him. It was always "Just engaged, Rob—so sorry!" with a smile which belied her words. At first Rob chose other partners, but after one or two rebuffs he withdrew from the platform and watched Lassie with gloomy face. Cruel Lassie! When she scattered her smiles as recklessly as though she did not know how priceless they were to Rob, did she know what a storm she was raising in that young man's breast? She must have suspected, for whenever she caught sight of the frowning brow of her escort, she redoubled her smiles and shy glances.

The afternoon passed swiftly, and at last she spoke to the youth at her side:

"I must go home! Where's Rob? Oh, there he is by that big tree! Will you please take me to him?"

Reaching Rob's side, she dismissed her cavalier with a bow and a smile which left him in the seventh heaven of bliss, and signified to Rob that she was ready to go home. Without a word he helped her into the buggy and drove off. Lassie commented on the picnic, on the lovely weather, and on the people, but received no answer. Giving a scornful little laugh at this, she began singing, in a low voice, for her own amusement. They were passing a house where the thoughtful owner had placed a cup and a pitcher of fresh water on the gatepost, when Lassie spoke again.

"Rob! stop here," she said. "I'm thirsty. Please get me a drink."

He obediently stopped, gave her the reins, sprang out and got the drink. When he returned and would have taken the lines again, Lassie gave him a saucy look, as she started the horse and then held the reins out of Rob's reach.

"No, you sha'n't have them," she said, "until you can behave yourself. Smile at me—speak to me. Don't sit there like a ghost at a feast or a bump on a log. What is the matter, anyway?"

"You have treated me dreadfully to-day, Lassie," said Rob. "You had no right to flirt and dance with those fellows so much."

"And what right have *you* to say what I should do?" said Lassie, scornfully. "Here, take these reins," she added, dusting her fingers as though contact with anything belonging to him had soiled them.

"In the first place," answered Rob, "I was your escort, and—"

"*That* gave you no right to dictate to me," interrupted Lassie.

"It gave me a right to more consideration than I received," said Rob, hotly.

"And *I* had a right to repay you for your conduct this morning," retorted Lassie.

The silence which followed was at last broken by Rob.

"It was cruel of you, Lassie," he began in a quieter tone, "to treat me so. You *know* I love you. You know my life is worthless to me without you, and you ought not to torment me by flirting with those boys as you did."

"How was I to know you loved me, pray tell?" said Lassie, still angry. "I'm sure you never told me so before, and I'd never suspect it from your actions. I don't believe you ever did care for me or ever will, and I'm sure I don't want you to. You have no right to dictate to me, sir, and I'll have you understand that I'll dance and talk and flirt with anybody I choose to, and you'll have to stand it as best you can."

Lassie became more and more angry with every word she spoke. Petted and indulged all her life, she did not know what it was to be crossed or scolded, especially by Rob, who had always been her willing slave.

His unusual sentimentality that morning had startled and annoyed her, and now to have him scold her was more than she could endure patiently.

"Is that all you have to say, Lassie?" said Rob, with set mouth and a pained look in his eyes. "Has my lifelong devotion no value to you?"

"Devotion!" sneered Lassie. "Why, Gilbert Wright treats me better than you do."

They drove up to her gate as she finished speaking. Rob sprang out and helped her to alight. Then he turned to her, and, with the reins in one hand, held out the other in friendship.

"If you really feel that way, Lassie," he said sadly, "we had better part now forever. I'll go away somewhere and leave you in peace. You'll regret the way you have treated me some time, and feel sorry to think you have scorned an honest man's love."

"I wish you would go away, but I have no such hope," said Lassie, turning away from the outstretched hand. "You bother me dreadfully. If you stay here much longer I'll hate you."

With one reproachful look, Rob sprang into the buggy and drove away. As she saw him disappearing in the distance, she somewhat repented of her hasty anger. But, believing she would see him soon and "make up," she walked into the house with a triumphant step, feeling she had at last conquered him.

(Concluded next week.)

Anecdotes From Down-East.

A reader of the *Christian Register* (Boston) sends that paper the following anecdotes:

Once, while hearing a Sunday-school lesson, I asked, "By what other name was Jacob called?" expecting the answer, Israel; but the reply came at once, "Jake."

My little girl once said, after attending her first public entertainment, "I don't think people were polite; for, when the speaker got through, they clapped as though they were *glad*. I'm sure I was, but I shouldn't want to show it." Another child in the family, on seeing a live colt for the first time, asked, "When will the *rockers* grow?"

My faithful servant came to me one day, in tears, asking permission to leave her work to go to the post-office, as she had received word that there was a *dead letter* there, which confirmed a dream that she had had that some one was dead. She was highly indignant on her return, as the letter proved to be one written by herself to her lover in Erin, months before. This same girl came to me quite disturbed about some gloves that were mismated in the washing, saying they were not *comrades* at all.

My oldest boy, who had been taught to pray personally for his friends and schoolmates,

stopped in his prayer one night and asked, "What does 'neighborhood' mean?" I explained. "Then, God," he continued, "take care of the whole neighborhood!" He once fell from the barn-loft, scraping his leg fearfully, on which he remarked, "Well, I guess we'll call that a *narrow scrape!*"

A Few Vords Aboudt Boetry.

[Written for the RURAL PRESS by C. P. N.]

Der question vat vas in front of us at der bresent moment vas a teep von. Ve vill not addempt to oxblain der whole peesness of vat dot abstruct ting, boetry, vas, but vill say sometings aboudt vat der rabble dinks it vas or maype should be.

Some pig piles of shtuff vas been written py fellers who dink dey had more prains as somepody else hadn't, but idt aindt the piggest punkin as vas always der pest, now was hin? But O, my heart vas sore und mat ven some man as dondt can do nodtings but dalk of sometings he can't oxplain comes along und makes himself oudt dot he vas pig, you baed! I vas so madt ven I read aboudt some beobles as der men vas madt who had some chink in der pank dot der gashier dook wen he pusted der pank und shkipped.

"Boetry vas born, not made," ish der old sentence der vise man said, und you petter peleife idt. Boetry vas der art of oxpressing tings in der peautifullest as vell as der most easiest vay vot you couldt do (und sometimes vat you *couldn't* do) bud of you dondt make der tail end of der lines zound pretty close alike, or of you dondt gommence efery line mit a gapital ven dot vas all you could got oudt of your prains, vy, den it vas brose, und you baedder keep mum about being "boetry."

Bud ah! mine frients, gife me your ears und I dell you vot maype you dondt hear of already; ven you can dalk aboudt nodings, und ven you can dalk sometings you couldn't oxblain yourself, und ven you can make gapitals faster as you could in brose, den der vor.d vill gife you a boost und say you vas a boet. Idt dondt make some tifference vat you write, so long ash you dondt hurt nopody's feelings; of you rafe aboudt der peauties of natur und der sthar-lit heavens, und all der tings vat maype vas handy, you haf got der balance of der bublic py der ear; budt, mine frients, it vas more as baedder you dondt make boetry oudt of tings vat vas real goot for man to do, pecause you see man lofes generalties und he *dondt* lofe to pe bit. Dalk schoost so much as you blease aboudt lofe und peace, und all der oder gualities dot ve all like bretty vell, bud of you kick ofer der dhraces und sphoudt too many lectures you vill get der grand pounce so guick as you vink.

Der boet—der *dhrue* boet—vas a pig feller. His peesness dondt pring him too much money, budt in der eyes of der beoble he vas an elevated shentleman, roosting schoost so high as der pest of dthem. Shall he cast on der beobles der plack eye of scorn? Shall he grindt oudt from his stupendous prain such drash as vas so pad idt vas incomprohenserable und gonseqvently der boor, ignorant beoble tought it vas eggstra goot? Shall he—Oh, it vas pad, so pad I couldt not oxblain all I feel acrowding to der ben's boint. Blease vait a jiffy, vile I geep mine eyes from drownding.

My friendts, of you go mit der crowd you vas all hunky-dory, bud of you vill baddle your canoe so you hurt der objects of any von's bride, you baedder look oudt a leeddle. Maype you vas all righdt und maype not, bud dot dondt make some tifference; efery von vill dake a shy at you und you vill get knocked oudt.

In conclusion, ledt me gofe you some bieces of advices. Advices number von vas: Brose vas more as likely to be brose den boetry, budt a pig lot of shtuff vat vas called boetry vas nodings but brose. Advices number dwo vas: Efery man must suit themselfs, und of he vas happy you aindt got some righdt to comblain. Und my last advices vas: Most of us dondt got more prains den some oder beobles, und so ven ve gifes some dalks aboudt boetry ve baedder pile some charity on, now aindt it?

Haywards, Cal.

SHOW-CASE SHOES.—The beautiful varieties of boots and shoes that we often see in show-cases are not samples of salable lines, as a rule, but simply specimens of artistic manufacture made to attract attention. Passers-by instinctively stop and admire the marvelous combinations of rich color and fine workmanship, and are apt to envy the person who is to be the possessor of them.

YOUNG FOLKS' COLUMN.

A Fairy Tale.

You ask me for a story, dear,
A fairy tale of long ago—
Of dainty sprites and brownies queer
Who used to walk this earth below—
Well, pet, last eve I saw appear
A truly Cinderella, here.

Here in this room? Yes, dear, the moon
Filled all the earth with glitter bright,
While starry sky and crystal snow
Helped to reflect the radiant light—
Those are the times, as well you know,
When fairies walk this earth below—

I saw—all clustered by themselves
And dressed in brown of dingy hue—
Oh, many, many little elves—
Each looked like Cinderella, too,
As she sat alone by the fire that night,
And her godmother came, to her great delight.

You remember the tale? Well, these fairies, too,
Were discontented with their dull lot
And complaining among themselves—when, lo,
Their home was lifted from the spot
Where it had rested, and carried far
To a place as bright as the brightest star.

A golden light filled the air below,
New sights greet their eyes and new sounds their ears,
And on fiery horses, with radiant glow,
Their fairy godmother swift appears—



As they speechless gaze at the wonderful sight.
All discontent takes a rapid flight.

As she looks on each with her smile so warm,
Their hearts expand with a new delight,
Their old brown dress from their form is torn,
And they're dressed for the ball in robes of white;
How they dance!—but your laughter my tale has stopped—
Yes, the brownies were *corn and are now* ALL POPPED. —*Portland (Me.) Transcript.*

A Monkey and a Dog.

We don't suppose it is the same monkey and dog shown in the picture, but a delightful little incident is told in the *Irish Times* about a monkey and a dog. A brave, active, intelligent terrier, belonging to a lady friend, one day discovered a monkey belonging to an itinerant organ-grinder seated upon the bank within the grounds, and at once made a dash for him. The monkey, who was attired in jacket and hat, awaited the onset in such undisturbed tranquillity that the dog halted within a few feet of him to reconnoiter. Both animals took a long, steady stare at each other, but the dog evidently was recovering from his surprise and about to make a spring for the intruder. At this critical juncture the monkey, who had remained perfectly quiet hitherto, raised his paw and gracefully saluted by lifting his hat. The effect was magical—the dog's head and tail dropped, and he sneaked off and entered the house, refusing to leave it till he was satisfied that his polite but mysterious guest had departed.

Two Little Pigs.

One bright summer morning, as I was strolling toward the beach on the Island of Mackinac, I saw a short distance ahead of me two little pigs, one perfectly white and the other perfectly black, both the same size, trudging along side by side in the same direction as myself, seemingly engaged in earnest conversation.

They seemed so out of place, and I was so curious to know whither they were bound, that I followed them unobserved. They did not walk aimlessly, but as if they had some special object in view, and some definite destination.

I wondered what they would do when they reached the water. I was not long in being answered. Without a moment's hesitation they plunged into the waves side by side, and swam out and away toward another island, six miles distant. I stood and watched them until their two little heads looked like balls bobbing up and down, side by side, all the time.

When I related the incident to the landlord, a little later, he looked astonished and annoyed.

"Those pigs," he said, "were to have been served up for dinner to-day. They were brought here this morning in a boat from that island, and we thought we might allow them their freedom for the short time that they had to live, never thinking of their making an attempt to return home.

"And did you notice," he continued, "they chose the point of land nearest the island where they came from to enter the water? Singular that the little animals should have been so bright! And furthermore, they weren't landed there; that makes it more strange."

I, too, left the island that day, and I have never heard whether those brave little pigs ever reached their destination or not.

COMPROMISING.—"No, Bobby," said his mother, "you cannot go skating to-day. It's Sunday, you know."

"Well, ma," persisted Bobby, "can't I go if I'll just skate straight ahead and not try to do any fancy work?"—*Puck.*

GOOD HEALTH.

The Temperance Amendment.

Referring to the passage of the amendment to the school law, requiring instruction in the toxical effects of alcohol and narcotics to be given in the public schools, the Corresponding Secretary of the W. C. T. U. writes as follows:

Petitions were circulated in every part of the State and 13,000 names were thus secured asking for the passage of the bill. These petitions were presented by 50 different members of the Assembly, each for his own constituency. Of the names signed, just 10 per cent were school-teachers or officers, 395 were clergymen, 280 physicians, 250 lawyers and 50 *saloon-keepers.* The first petition offered was from the University of Berkeley, and bore the names in order of the whole faculty. Both Normal schools sent similar petitions, as well as many other religious and educational bodies. Notable among these may be mentioned the Sisters of Mercy of the convent and school of Mt. St. Mary's, their bishop sanctioning the movement.

The very capable W. C. T. U. Superintendent of Scientific Temperance Instruction, Mrs. D. J. Spencer, of Grass Valley, was in Sacramento during the entire session of the Legislature, and to her energy and perseverance is largely due the success of the bill.

Twenty States of the Union have passed this Temperance Instruction bill.

IN PRAISE OF MAIZE.—Among the good things which a reporter for the N. Y. *Mail and Express* has overheard from time to time in the elevated railroad cars is the advice of a noted physician the other morning, to a young man who complained of nervousness, loss of vision, night sweats, and a poor appetite. "Throw away your cigarettes, and eat a good bowl of mush and milk for your breakfast," said the learned doctor, "and you will not need any medicine. Indian corn is essentially an American institution. As the staple food of our daddies, it can really be said to have helped to lay the foundation of this great republic. With its product, the hog, it was, in the not very remote past, almost the sole food supply of the rural districts, and the dishes that can be prepared from its various forms are of much greater variety than can be prepared from wheat. Like Sambo's rabbit, it is good to roast, to bake, or to boil, and can be fermented and turned into whisky, but its stimulating qualities are best procured by making it into a mush. It contains a large amount of nitrogen, has qualities anti-constipating, and is easily assimilated. Though originally the poor man's food, it has come to be the rich man's luxury. It is cheap, and has great nutritive properties. A course of Indian meal in the shape of johnny-cake, hoecake, corn, or ponebread and mush, relieved by copious draughts of pure cows' milk, to which, if inclined to dyspepsia, a little lime-water may be added—will make a life now a burden well worth the living, and you need no other treatment to correct your nervousness, brighten your vision, and give you sweet and peaceful sleep."

DOMESTIC ECONOMY.

Brea as Fuel.

EDITORS PRESS:—As fuel is very scarce in Los Angeles county I will tell you what we burn in rainy, chilly weather, when it is necessary to keep a fire all day. The Spanish name is "brea." It is crude petroleum which runs out of the hills in many places in the southern counties of this State. The hot sun quickly evaporates the liquid part, or the coal oil, leaving the dregs or the solid part on the surface. It can be broken into chunks when cold, and is then ready for use.

We make a fire in the stove of wood and lay some of the brea on the wood. As it gets hot it melts and runs down over the wood and burns. The wood being covered with it, burns very slowly until the brea is burned. Without wood the brea would melt and run in the ash-pan. While the brea is burning there is a dense black smoke rolling out of the pipe which we do not object to at all; but what the cook objects to is the soot-tags which hang to the stove-plates as long as your finger. In a week or two the soot so clogs the draft of the stove that it has to be cleaned frequently.

I have only two points to make in favor of brea as fuel for domestic use. One is the price; as one cord of wood costing $9, and one ton of brea costing $3, will burn as long as three cords of wood at $9 per cord. This makes $27 for the wood alone, and only $12 for the brea and wood mixed. The other point in favor of brea is, it may rain on it all winter and does not injure it in the least; also the wood which you burn with it may be wet or green and is no detriment to the fire whatever.

In my next I will describe the oil-wells located five miles southwest of here. Also some of the many uses to which the oil is put.

Spadra, Los Angeles Co. D. J.

Polish for Ladies' Shoes.

EDITORS PRESS:—You would oblige me by telling in the columns of your RURAL PRESS of some reliable preparation for polishing ladies' kid shoes without cracking or injuring the kid.

San Jose. SUBSCRIBER.

BROILED LIVER.—Cut the liver into slices, scald it; take off the skin; wipe; season with salt and pepper; rub over with butter; broil about five minutes; serve with butter. Be very careful in buying liver to get it of a reliable market man, as no part of the animal is more liable to be diseased. Calves' liver is the best, as it is more delicate and in less danger of its being diseased. Slice and scald the liver as directed, and let the water stand on it for awhile to soak out the blood.

BREAD MUFFINS.—One cup stale bread-crumbs, three-fourths cup flour, half tablespoonful melted butter, 1 cup milk, 1 egg, 2 teaspoonfuls baking-powder, half teaspoonful salt; soak bread and milk half an hour; add beaten yolk of an egg, melted butter and salt, flour, baking-powder and white of egg beaten stiff. Bake in hot gem pans 30 minutes. This quantity will make a dozen muffins.

PAULINE MUFFINS.—Two and a half cups flour, 1 pint milk, 2 eggs, 1 tablespoonful sugar, 1 tablespoonful butter, 2 teaspoonfuls baking-powder, 1 teaspoonful salt; mix flour, baking-powder and salt together. Cream the butter, add sugar, beat well, then add beaten eggs, flour and milk. Bake 30 minutes in hot oven.

RICE CAKES.—One cup sweet milk, 1 cup warm boiled rice, one-half teaspoonful salt, 2 eggs, yolks and whites beaten separately, 1 tablespoonful melted butter, flour to make a thin batter. Mix in order given.

PACIFIC RURAL PRESS

A. T. DEWEY. W. B. EWER.

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SAN FRANCISCO:
Saturday, April 16, 1887.

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The Week.

The rains which began just in time to receive a glad greeting in our last issue have continued, not after the manner of fitful April showers, but with frown of sky and sigh of wind which attend a winter rainstorm. The result has been that along the coast, north and south, there has been a good drenching except in some special localities where only a heavy, rainy season really saturates the ground. The Sacramento valley and its tributaries report enough rain for good returns, the east side of the San Joaquin will do well, while on the west side there will be more than was expected two weeks ago. In the upper San Joaquin valley the rain came in time to rescue much grain. In Southern California, some districts will yield a good grain crop and others will make hay and feed grain, which is about all they count on. The trees and vines do not depend upon rainfall, and promise well. There will be a marked reduction in the aggregate grain yield of the State, because the peculiar season led to the decrease of the area sown, and the yield from the sown acreage will be moderate. It is quite possible that improved price may compensate for the reduced weight.

The rain has done a vast good, and as we have half the month left, more water may still be expected. Fruit promises to be very abundant, and, as stated elsewhere, the uncertainty about the disposition of it is all there is to complain of, and even that may work out in a satisfactory manner.

How to Do It.

There seems to be a general desire in California neighborhoods at the present time to go forward in public esteem and to enjoy a share of the sunshine of favor which is now being so generously shed upon our commonwealth. The desire is commendable. If it is acted upon it will accomplish at least two satisfactory results; one in securing the incoming of desirable people to aid in development; another will be the increase of local pride and enterprise which will make every place which cherishes them better fitted to minister to the needs of enlightened life. Possibly there may be many places in which some citizens feel the thrill of the newer life of California, but do not possess the knowledge of how to go to work to crystallize impulses into actions. Such people may, perhaps, take a lesson from recent events in Saratoga, Santa Clara county.

We have received a copy of a very excellent and carefully prepared pamphlet entitled "Saratoga and Its Environs," containing an address delivered before the Saratoga Village Improvement Association, by James E. Gordon. It describes Saratoga and its resources and advantages, and will be read with interest by all who are looking over California with a view to settlement. From Mr. Gordon's pamphlet we learn of the recent organization in Saratoga of two societies; one chiefly esthetic in its aims, the other bristling with business enterprise. Both of these means of advancement are desirable in a town. The society, chiefly esthetic, is named the "Saratoga Village Improvement Association," which has for its objects the following:

To beautify the roads by planting shade trees, sprinkling roads and streets, grading and maintaining roads, planting hedges, encouraging social intercourse by lectures and otherwise, promoting order, tidiness, and generally all means conducing to the health and prosperity of Saratoga and vicinity.

Officers: President, Hon. Milton H. Myrick; vice-presidents, James E. Gordon, Jennie M. Farwell; recording secretary, L. A. Sage; corresponding secretary, Carrie H. Gordon; treasurer, Frank M. Farwell.

Any information regarding Saratoga as a place of residence, its soil, climate, society, cost of living, railroad fare, etc., will be cheerfully answered by addressing the secretary at Saratoga, Santa Clara county, California.

This will improve the town, make it more widely known and minister to its advancement. The other organization, which has "business" for its foundation-stone, is called "The Saratoga Improvement Co.," and is a syndicate having to accomplish the following objects:

To buy unimproved land, plant and cultivate trees and vines thereon, and sell in ten-acre lots on easy terms; to build houses, mills, factories, and supply same with water and gas; construct roads, bridges and sidewalks; to manufacture the products of our fields and forests, and generally to develop the resources of Saratoga.

It seems to us many towns can well do as Saratoga is doing. The county "Boards of Trade" (a name which is, however, peculiar as now applied in this State) are good in the way of uniting for effort on the outside world, but it is quite important that there should be some good internal improvement work done for the benefit of the people and to make more sure the enrapturing of visitors who may come in answer to the county advertising. The example at Saratoga should not go unheeded.

CALIFORNIA ORANGES FOR GERMANY.—Griffin & Skelley, of Riverside, says the *Press*, are packing oranges to send to the World's Exposition at Dresden, Saxony, which will commence May 1st. The oranges sent will be the genuine Washington Navel, and will, no doubt, create a sensation in that country.

THE DROUGHT IN TEXAS has been relieved by copious rainfalls for 300 miles along the T. & P. R. R. and north of that line. In a large portion of that State rain had not fallen for nearly a year, and the suffering has been severe in consequence.

CALIFORNIA has 4000 wine-growers and 160,000 acres in vines, which gives employment to 40,000 people.

Wool and Freights.

The Interstate Commerce law bids fair to work some pretty severe hardships to California unless the Commission can be induced to exercise the prerogative vested in them to make inoperative those provisions which evidently work great hardship to the industry of the country. The general idea of railway regulation is, as we have always claimed, a good one, and one which in the end will prove of great value to the producing interests of the country. If railway managers are effectually taught that the popular interest is a more important consideration than their own aggrandizement, and that their acts must be held subject to regulation in the public interest, there will be a great point gained.

This is, we take it, the main point to be gained, and this is already well-nigh demonstrated even in the few weeks since the law was enacted. It cannot be well for the sake of enforcing this lesson, either to make rates on long hauls so high that producers shall not be able to market their products or to make the roads idle and unprofitable. The Interstate law comes fairly under experimental legislation, and this fact is recognized in the discretionary power vested in the Commission. This power we trust they will exercise wisely and promptly where there is apparent need. It is likely that all the wisdom of the Commission will be called forth in settling the various questions which will arise.

The overland carriage of California produce is certainly a matter which should early claim attention and be adjusted so as not to work great hardship to our producers this season. During this week there has been great activity among our citizens who are interested in handling the wool crop, and on Wednesday it was stated that a petition for relief would be immediately forwarded to the Interstate Commission. It is true that wool is not a perishable product, and the water route via Cape Horn is open at cheap rates; but the reason this does not furnish adequate relief appears from some remarks made by Mr. John H. Wise at a meeting of woolmen held in this city this week. Mr. Wise said:

The operation of the law would affect the wool-growing interest more than every other of the State combined. While California in relation to its fruit products had no competition from any source, and was practically independent on that account, wool, on the contrary, had competition in every State and Territory, and California, being at the extreme, suffered in consequence. The wool trade which heretofore came from Arizona, New Mexico, Utah, Oregon and elsewhere would no longer find a market here, this city being dependent on the tariff which was made for local points.

Should our wool be shipped by water routes, the three months' delay meant loss of the best market for our wool, which is the early one. By the railroad our wool reaches the East in May and June, when that market is bare of wool. If we are compelled to ship by sail, we reach the Eastern market when our wools come in competition with those from the entire country. The speaker had been assured that the railroads were anxious and willing to make a fair rate if permitted to do so. The trade amounted to 40,000,000 pounds per year, and at the present rate of $3.70, over $1,000,000 will have to come directly out of the growers' pockets. The high rates meant no higher prices East, but lower prices to the grower. The railroads had petitioned the commission to suspend Section 4 on imports, but the question of benefit to the people of the State far exceeded in importance that of our foreign trade. He believed a fair statement of the position of the trade on this coast to the Interstate Commission would receive its favorable consideration, and he had the assurance that if Section 4 was suspended—as to wool—the rates would be made fair; and while not as low as prior to April 5th, yet reasonably satisfactory to the trade. He did not believe the intention of the law was to be destructive to any section or to any interest; yet such was the present effect upon California, as far as the wool interests were concerned.

The action proposed was adopted, and a statement, as above, will be sent to the Interstate Commission.

It is quite a mistake, however, to hold, as Mr. Wise seemed to in his speech, that the California fruit interest had no competitors and is therefore independent. Our fruit interest has the keenest competition with the Eastern product and with imported European fruits. It has the added disadvantage of being perishable and therefore wholly unable to take advantage of low rates by water. It is clear that high rates on California fruit will cause the fruit to rot on the trees. It is clear that the prosperity of California demands some action on the part of the Interstate Commission, for a prohibitory freight rate will paralyze our young and promising industries.

VACAVILLE produces the earliest fruit in the State.

The Fruit Crop.

It seems beyond question that we are to have plenty of fruit this year. Some indications would promise a wonderful yield of some fruits, but it is a little early to make figures of immensity. It is safer and better policy to refrain from making over-estimates. In all probability, however, there will be as much fruit as can be profitably disposed of, and it may, perhaps, require some skill and enterprise to get the profit out of it. There is more than ever reason for growers to look about and see that they have proper safety-valves. It is likely that there may be need of more general recourse to drying, and he is wise who lays his plans accordingly. So long as a man is prepared to handle even a part of his crop himself, he is to a degree, at least, independent of bear efforts to put the price of fruit at the very lowest point, which may be expected. We hear that canners are talking very low figures for apricots and peaches. We know of one grower who has a drier in which he can handle 25 tons a day, who makes an offer of $30 per ton to his neighbors for their apricots, providing they cannot sell for more money to others. With a large crop, apricots can be grown with a profit at $30 per ton, and in that neighborhood at least canners must pay that price or the apricots will be dried, and no doubt the owner of the drier will do well by his enterprise. If all neighborhoods were thus situated, it would be well, for we hear of canners' bids as low as $15 per ton, which is a starvation rate to the grower and wealth to the canner. The only safety in the matter of fair prices is for the growers, either singly or by co-operation, to fit up capacious driers or canneries which may be operated or not, according to the market value of the green fruit.

The Interstate Commerce law comes into operation just at a time calculated to bring much uncertainty into the Eastern business. There will be much influence brought to bear at both ends of the line to induce the commission to put a generous construction upon the Act, at least as far as California fruit is concerned. The movement in New York looking to a fostering of the trade in California fruit in the metropolis, is apparently a good indication. An account of this movement may be found upon another page of this issue.

Upon another page may be found the last circular of the Fruit Union. We presume its operations will be somewhat influenced by the Interstate Commerce law. The circular mentions the visit of the president to the East to arrange trade facilities, etc., in the latter part of May. It seems to us that is rather late in the season, but there may be reasons for it. The situation is not altogether clear. The injection of the new elements of uncertainty has not improved it. Possibly, however, something more definite and encouraging may be soon announced.

The Vote on the Amendments.

The returns from the voting on the proposed Amendments to the Constitution are coming in slowly, but it appears, from the figures received up to the time of our going to press on Wednesday evening, that Amendments Nos. 1 and 2 are defeated by the manifest opposition to them in the interior.

Our farmers, who have been outspoken in their opposition to these measures, can congratulate themselves upon this result, which must be in a large measure due to their voices and votes. These amendments, it will be remembered, were intended to reorganize the Supreme Court and take the election of the Chief Justice from the people; also to increase judicial salaries. The people of the State have by this election declared themselves against such action. The fate of Amendment No. 3, which related to the charters of the lesser cities, is still in doubt. If it is lost it will probably be because it was caught in bad company.

This experience may also be taken as a rebuke to those who attempted to forestall public opinion and railroad these measures through by a special election, instead of allowing them to come up at a regular election—thus inflicting a vast and unnecessary expense upon the people. In this enlightened day it is becoming more certain that a sharp trick is apt to be dismembered by its own acumen, and that the plain, honest way is the best way after all.

An Upland Loco-Weed.

In the Rural of Oct. 30, 1886, we gave an engraving and description of a loco-weed occurring in Colorado and New Mexico, botanically known as *Astragalus mollissimus*. Upon this page may be seen another loco plant more common than the preceding and found in abundance on the high plains and in the mountain ranges from British America to Mexico. Its botanical name is *Oxytropis Lamberti*. Although the titles are apparently quite different, the plants are really closely related. Dr. Asa Gray, writing of the two plants named in the *American Agriculturist* some years ago, said:

All the plants sent for identification and said to cause loco poisoning have been of the Leguminous and of the Astragalus tribe. The species to which this damage is attributed in the plains of Colorado proves to be the *Astragalus mollissimus* of Torrey—a very downy species, as its name indicates. We never found this species on the mountains. But there the same ill effects are charged upon plants of similar appearance, belonging to a nearly related genus, *Oxytropis* mainly to *O. Lamberti*, which abounds at all elevations up to 8000 or 9000 feet. The botanical difference between these plants is so little that they might all be counted as species of *Astragalus*, but there is reason to think that this particular *Astragalus* of the plains of Southern Colorado is much the most dangerous. For this species is not found as far north as Wyoming and Nebraska, where the *Oxytropis* abounds on the plains; and there we never heard of this trouble.

These plants are all of the legumes or pea family, and the fact of their injurious character gave Dr. Gray occasion to write this very interesting history of the pea family:

There was a prevalent notion that plants of the pea tribe (*Papilionaceous* plants) generally are innocent, if not wholesome. No one suspected a tribe which gave us peas, beans, lentils and the ubiquitous peanut, and supplies such fodder as does clover, medick, lucern, vetch and cow-pea. In the first edition of his "Natural System," Lindley wrote: "The general character of this tribe is its nutritious, or, at least, wholesome, properties." Later, the note is changed, and in the "Vegetable Kingdom" he declares of the order "that, upon the whole, it must be considered poisonous, and that those species which are used for food by man or animals are exceptions to the general rule, the deleterious juices not being in such instances sufficiently concentrated to prove injurious." What a pity that our cattle are not better acquainted with the corrected rule! In Europe and in the Atlantic States no harm is known to come to cattle from want of proper discrimination. But when European flocks were taken to Australia, and to pasture and forage almost wholly new, thousands of sheep perished in the Swan River colony in consequence of cropping the leaves of some leguminous plants to which they were attracted. What made the matter worse for the botanists was that the very plants which did the mischief had been recommended by one of them (Mr. Preiss, a German) as the best thing the agricultural society could cultivate as artificial food for stock. But another botanist, Drummond, a canny Scotchman, got up some experiments and proved that the people were right in charging the damage to these very species (of *Gastrolobium*) which the German botanists on general principles expected to be innocent and useful. The same plants are fatal to goats and even to cows and horses. The symptoms, as described, are almost exactly like those produced by the loco-weed. In other parts of Australia, species of a different genus (*Swainsonia*), very like *Astragalus*, and like the bladder senna (*Colutea*), destroy cattle in the same way.

It is recorded that the poison plants of Australia were found on analysis to contain a poisonous alkaloid, apparently *Cytisin*, to which the injurious properties are attributed. It was thought chemical analysis might show something similar in our loco plants, but so far the analyses made do not disclose it. The plant shown in the engraving, *Oxytropis Lambertii*, grows in strongly-rooted clumps, has an erect habit. The leaflets are about one inch long by one-fourth to one-third inch wide, and are hairy, especially upon the upper surface. The flower stalks (says Dr. George Vasey in his description) proceed from the root stock and are usually 9 to 12 inches long, and naked except near the top, which has a rather close and thick cluster of flowers, much like those of the *Astragalus* in general appearance, but differing in some minute characters which separate it into another genus, and are succeeded by erect lance-oblong, pointed pods of about an inch in length. The flowers are subject to much variation in color, some varieties being purple, some yellow and others white.

The Pacific Kennel Club, at their last monthly meeting, decided to hold a bench show in this city on the 1st, 2d, and 3d of September.

Dried Fruit From Los Gatos.—On Friday of last week Mr. A. N. Van Fleet, our reader and correspondent at Los Gatos, showed us a sample case of evaporated fruit, put up by himself and his partner, Alex. Hildebrandt, the beauty of which is seldom surpassed. The case, about 15 inches square, was divided into eight compartments, radiating from the center, and containing, under glass, elegant specimens of French prunes (running 40 or 45 to the pound), Oregon silver prunes (about 18 to the pound), Muscat raisins, Crawford peaches, both peeled and unpeeled, and Blenheim and Large Early apricots. The fruit, as a whole, was singularly handsome, especially the silver prunes, and a carved border of oak leaves and acorns set off the exhibit very tastefully. Mr. Van Fleet reports the outlook for the fruit crop excellent in all parts of Santa Clara county.



A LOCO PLANT—Oxytropis Lambertii.

Counterfeit Silver Afloat.—Counterfeit dollars, halves and quarters, dated 1886, have been largely circulated in Fresno recently. The coins are said to be well executed and calculated to deceive, but are wanting in weight and ring, and can be detected by close scrutiny. The public are warned to be careful in examining their change, as the spurious coin has a new, bright look about it, and the date is liable to throw one off his guard. The "shovers of the queer" have been at work for some time in Los Angeles, and it behooves people in all parts of the State to be vigilant.

Ginseng Culture.—The Visalia *Times* suggests that growing ginseng, for export to China, would be likely to prove a lucrative business in some parts of the State. The Celestials use the root, dried, for medicinal purposes as well as for a preserve, and the Chinaman in this country is poor indeed who has not always a jar in his cabin. The *Times* is confident that the plant could be profitably cultivated in that portion of Tulare county immediately east of Visalia and also on the bottom-lands of Kings river and other streams, and that a ready market would be found in San Francisco.

Equine Surgery.—An Eastern dispatch reports a case of veterinary surgery which is said to be the first of its kind on record in the United States. A valuable brood mare on the stock farm of Norman Barnard, near Avondale, Penn., lately broke her leg, which was set by Dr. Ewing and left in good condition. But the limb was afterward broken again, by the animal's plunges, and Dr. Huedikosen, of the University of Penn., advised that it be amputated. The operation was performed, and the mare is said to be doing well.

Wheat and Alkali.

We notice that the Chicago *Tribune* in its issue of April 7th is hugging the idea that California wheat-growing is likely to die out because of outcropping of alkali, and that this will ere long remove our fields from competition in the wheat supply of the world. The same fate is to overtake the wheat industry of India, and therefore the Mississippi valley will be left the pleasure and profit of wheat-growing. There is alkali in California and India, and there is danger of its increase by irrigation if precautions are not taken against it. So far as California is concerned we anticipate that the drainage remedy will cope with the evil, for drainage systems must be had for this and for other reasons, and there is now a very hopeful disposition among the people in regard to it. The prominence given to the alkali extension in the excellent special report by Prof. Hilgard is not in anticipation of the result which the Chicago *Tribune* joys to foresee, but merely to inform people of the proper remedy and the need of applying it.

The production of wheat in California is but a very small measure from irrigated land. In the main it is from land moistened only by the natural rainfall. The irrigated area is increasing, it is true, but there is no likelihood of its supplanting rainfall in parts where rainfall gives good crops most years. Hence the downfall of wheat-growing is not to be expected. Our wheat product may decrease, and so long as the margin of profit on wheat is so small as at present, the decrease is not to be regretted. The reason why it is not to be regretted is that wheat decreases because other more profitable uses are found for the land. Irrigation water, as a rule, brings in another class of products, including fruit, alfalfa, and other crops for live-stock, etc., which produce more value from less area, give more and steady work for a laboring class, fill up the country with homes, villages, towns, cities, support manufacturing enterprises, and otherwise contribute to the full development of the country. When California land becomes too valuable to grow wheat on, then the Chicago *Tribune* can have the wheat industry for the Mississippi valley. The wheat industry has done much for California, and we shall cling to it as long as it serves us well. When we let it go, which is not likely to occur, it is because all the land is needed for other uses. If we do stop it will be not because the soil has become worthless, but because it has become too valuable. Let the *Tribune* note this fact.

Big Schemes and efforts to monopolize the various limited branches of business continue to be the order of the day. The consumption of sulphuric acid in the manufacture of petroleum is about 4500 tons per month. This affords a fine opportunity for the Standard Oil Company to step in and monopolize the manufacture of that commodity, which they are now making efforts to do. In addition to the demand for this acid for petroleum manufacture, it is also largely used by tanners, nitro-glycerine manufacturers, and for galvanizing anything made of iron, in brass works, for fertilizers and other minor industries. Another big scheme has been set on foot by Armour & Co., the well-known pork-packers of Chicago, who propose to control the manufacture of cotton-seed oil. It is said that 20 mills are in contemplation, for which sites are being chosen. According to report, eight will be built this year, each of which will have machinery costing $80,000, and 64 cotton presses will be ordered. The oil is said to be used as an adulteration of lard and other hog products. Doubt is expressed respecting the advantage to be realized from the sale of seed for oil rather than retaining it for fertilizing purposes, where the land is impoverished. By some, however, it is said that Armour's scheme is simply a bluff game, played by the big packer against the managers of the American Cotton Oil Trusts.

Mr. Geo. B. Green, of Courtland, who is engaged in raising apricots and peaches on the upper end of Randall's island, dropped into our office a few days since and renewed his subscription to the Rural Press. Mr. Green has been making a series of experiments with insecticide washes, the satisfactory results of which he means to bring before the public. He speaks very hopefully of orchard prospects this season along the lower Sacramento.

PUBLIC AFFAIRS.

Is It Well Spent?

EDITORS PRESS:—In a paper published in the interest of the liquor traffic I find the following statement, in reply to the common charge made by temperance people, that this nation spends annually $900,000,000 for strong drink. The writer says: "We will make a few statistical calculations for the purpose of showing these clever figurists that this money is well and economically expended and does more toward building up our social fabric, lubricating the machinery of Government—general and municipal—sustaining the body politic, as well as the social maintenance of the population, and employing a larger amount of capital than perhaps any other interest except agriculture and railroads. Thus, out of this $900,000,000 which it is claimed is wasted in intoxicating drinks, the United States is assisted to the tune of nearly $100,000,000 annually, this being derived from customs, revenue taxes and special licenses, which require the services of about 50,000 revenue officers, gaugers, etc., to look after these interests of the trade for Uncle Sam." Then, after giving the number of men employed in each department of the liquor business, the writer adds: "Thus we have shown that there are employed, fed and clothed, in connection with this trade, at least 1,200,000 people."

Let us now examine these arguments. He says it builds up our social fabric. But when we see the general effect of intoxicants upon men's social faculties, when we see convivial gatherings break up in drunken rows, and, above all, when we look to that most important part of our "social fabric," the family circle, and see the blight and desolation caused there by drink, we are ready to ask this writer if *that* is what he calls "building up our social fabric."

He says it lubricates the machinery of government. Yes! and our courts, prisons, almshouses and insane asylums are filled with the drippings of this whisky lubrication.

"Sustains the body politic." It does seem to, much as grog sustains a tippler. Our "body politic" is much "under the influence of liquor." Its legislative action shows it, and it gets "pretty full" on election days. Candidates carry a bottle and are said to run the better for it. Voters vote oftener and easier when inspired by candidate-whisky. Officers go to their office-work under its baptismal obligations. It is very "sustaining"—very.

And there is the revenue. Of the $900,000,000 annually spent for drink, $100,000,000 (minus salary of 50,000 officers) goes for revenue. But since most of this is gathered from laborers and withheld from other and useful purposes, can any one tell how much its value is increased by passing from other use into the liquor business, or how much more the money is worth to the nation, when passed into the treasury as whisky-revenue, than it was in the hands it was taken from? It was the people's money, individually, before, and is the people's money collectively, afterward, and is equally a part of the nation's wealth in either place; so where is the gain?

But it is suggested that it relieves from taxation. Yes! the revenue thus gathered relieves capitalists from taxation, and laborers from having anything to tax—a double relief, of course!

It gives "employment" to 1,200,000 people, and an immense capital. That sounds well, but it should be remembered that employment may be useful or harmful, according to its results. Agricultural labor produces value in grain. Mechanical labor, as in building houses and ships, constructing railroads, machinery, and implements, produces therein value that did not before exist; and whatever withdraws labor or capital from useful occupation, or uses it harmfully, depletes the product wealth of the nation.

There is destructive employment as really as productive. The great Rebellion gave employment to many men, and much money, but its instigators are not regarded as benefactors. It killed many men and destroyed much property. But statistics show that the nation's drink has killed more than all its wars, beside the many it has crippled and not killed. General Scott once said that one wounded soldier made more trouble than three dead ones, and certainly one living drunkard makes more trouble than six dead ones. The latter make no expense for police force, criminal prosecutions or pauper support, while for the former the bills are enormous. When whisky disables a laborer, it lessens national wealth to the amount of value of his labor time. Competent authority has made the following estimate of this depletion of the nation's resources:

Idle time of tipplers	$296,849,592
Idle time from insanity caused by drink	49,129,500
Idle time from idiocy caused by drink	159,954,000
Labor time cut short by premature death from drink	612,500,000
Total	$1,118,433,092

If withholding the labor of 1,200,000 men and an immense capital from other useful occupation to put into such results, is not a national loss, what *should* it be called? If it *is* so, then at $1 per day for 300 days in the year, the loss for that time, not reckoning the capital, would amount to over $1,478,000,000 annually. Leaving out of this reckoning the court, prison and hospital expenses of the traffic, is not that rather an expensive way of transferring the comparatively small amount of revenue from the people's pockets to the people's treasury? Is it not about time that the liquor revenue plea and the liquor employment plea were abandoned? and really, is it not time the whole business was abandoned?

Of course, many important considerations have been overlooked in this estimate. The writer referred to neglected one which we might notice. In numbering the persons connected with the traffic, he left out the drunkards. They are numerous, and are the chief support of the business. They do more toward the aforesaid "building up our social fabric, lubricating the machinery of government," etc., than any other class. But their service shortens life; so that out of 100,000, 6000 annually hasten to drunkards' graves, and the world hastens to forget them. THOUGHTOGRAPH.

Paskenta, April 2, 1887.

THE FIELD.

The Government Crop Report.

WASHINGTON, April 9.—The report of the Department of Agriculture for April relates to the condition of winter grain and the comparative healthfulness of farm animals. The returns show that the condition of the soil at the time of seeding was somewhat unfavorable in the States on the Atlantic and Gulf coasts, owing to the drought during the late summer and autumn months, which was severe. In portions of Pennsylvania, in Maryland and Virginia and parts of Texas the same unfavorable conditions prevailed. In Western Missouri and in Kansas the continued dry weather made plowing difficult and seeding late, and in localities where the soil was broken when winter set in, germination was slow and the fall growth small. In the great wheat States of the central belt, from Tennessee to Missouri, seeding was late, but the greater part of the area was in favorable condition, and with local exceptions, the plant made good growth before going into winter quarters. The covering of snow during the early portion of the winter was better than usual over a large part of the wheat area, but there are from many sections complaints of scanty protection during the very trying weather since Feb. 15th. The month of March was the most severe for a series of years, the temperature being below the average over the whole wheat area of the Mississippi river, and the alternate freezing and thawing brought serious damage to the bare fields, especially in the bottom and poorly drained lands. Pennsylvania, Virginia and Ohio suffered severely from this inclemency. The general average of the condition is .88, the same as in 1881, and higher than at the same time in 1883 and 1885, when it was .80 and .76 respectively. The April condition of last year was 92.5, which was still further improved by the favorable weather during the month.

The average for California is .92; Oregon, .98. The damage from the Hessian fly is comparatively unnoticed; its presence is mentioned in from one to four counties in New York, Texas, Tennessee, Ohio, Pennsylvania and Michigan. Rye has withstood unfavorable meteorological conditions better than wheat, the average condition being .92 against .92 at the same date one year ago.

The returns of the condition of farm animals show a loss of swine amounting to 13.4 per cent, or 5,500,000, and indications are continued of the widespread prevalence of hog cholera. The losses of sheep amount to 7 per cent; of cattle, 4.3 per cent. The losses of cattle are heaviest in the South, and on the ranges in the far West from 5 to 9 per cent, while in sections where shelter is provided and better care taken, it amounts to only 2½ to 3 per cent.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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S. J. LITTLEFIELD—San Diego Co.

A SCOTCH COLLIE.—We have received from D. Z. Evans, Jr., dealer in thoroughbred live-stock, at Germantown, Pa., a photograph of a drawing of an imported Scotch collie, "Rob Roy"—a nice-looking specimen of that valued breed.

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Diseases of Children—Whooping cough cured; croup relieved in five minutes and cured within two days.
Throat Troubles—Quinsy quickly relieved and thoroughly cured, as are inflamed tonsils and ulcerated sore throat.
Snoring—Three doses each night before retiring cures this trouble.
Colds—In the head, cured by a few applications; fresh colds on the chest, in 12 hours.

THE COMPLETE TREATMENT includes the "Debellator" package, unequaled as a blood purifier, which must be used in Catarrh when there is a dropping of mucus into the throat, biliousness, or where the bowels are irregular or there are stomach or kidney disorders. It should be used in all cases of Catarrh, Asthma, Bronchitis, Hay Fever and Ulcerated Sore Throat. Price of the complete treatment, $5; "Smoke Ball," $3; "Debellator" package, $2. One complete treatment is generally sufficient.

MAIL ORDERS receive careful and prompt attention. State disease or symptoms in writing, addressing MAIN OFFICE. Complete treatment mailed on receipt of price, $5, and four cents in stamps. "Smoke Ball," $3 (four cents in stamps). "Debellator" packages, $2.

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Scale-Bug Exterminator & Preventive

The only Sure Death to the OYSTER-SHELL SCALE or SAN JOSE SCALE.

EXTRACTS FROM LETTERS:

Courtland, March 28, 1887.

Mr. Chas. J. Woodbury, San Francisco—Dear Sir: It has given better satisfaction than any other wash I have used, as it has destroyed the San Jose and Black Scale, which all other washes used by me failed to do. It has also been a benefit to the trees as a fertilizer, and I regard it as being by far the best insecticide on the market. T. W. Dean.

Courtland, March 28, 1887.

Mr. Chas. J. Woodbury, San Francisco—Dear Sir: From my experience with your tree wash, during the past season, I have no hesitation in saying that I believe it to be the best in the market. I have succeeded in destroying the San Jose Scale, which infested my orchard, and which all other washes I have used had failed to kill. Parties wishing to inquire further in regard to my experience with it, can do so by writing to me. Geo. B. Greene.

Walnut Grove, Cal., March 23, 1887.

C. J. Woodbury, San Francisco—Dear Sir: During the past winter I have used the Scale-bug Wash which you are making, and find, when properly applied, it does effective work in killing the scale and has not injured the fruit buds on either peach, plum or pear trees where I have used it. Yours respectfully,

A. T. J. Reynolds.

Walnut Grove, March 20, 1887.

Charles J. Woodbury—Dear Sir: It does the best work on the San Jose Scale of anything yet, and in fact it is the only wash that will kill them, and is sure death to all other scale and insects, such as Red Spider, Peach moth and Codlin moth, if used in the early part of the summer. Yours respectfully,

L. D. Greene.

Courtland, March 28, 1887.

Mr. Chas. J. Woodbury, San Francisco—Dear Sir: The Scale Wash you are manufacturing I have used the past season and find it satisfactory in every way, and I shall continue its use. Yours truly,

Dwight Hollister.

Grand Island, Sacramento Co., March 22, 1887.

Mr. Chas. J. Woodbury, San Francisco—Dear Sir: We take great pleasure in informing you that we have used your wash the last year, and it has done the best work of any, and we have tried nearly every wash. Our orchard is here to stand as proof, and we honestly recommend it to all fruit growers. We are, respectfully,

Messrs. Figg & Green.

Tyler Island, Sacramento Co., March 22, 1887.

Mr. C. J. Woodbury—Dear Sir: I have quite a large orchard of mostly peach, pear and plum trees, all of which were infested with the San Jose Scale. I had heard of the efficacy of the wash as compounded by you, so I tried it, and I now wish to say to you that I consider it *superior* to any wash ever used on this River Section. It is cheap, kills the San Jose Scale *sure*, and does not in the least injure the trees or fruit buds, even if applied two or three times in one season. I finished spraying March 31. Yours truly, Jno. Miller.

Courtland, March 22, 1887.

Mr. Chas. J. Woodbury, San Francisco—Dear Sir: It not only destroys the scale, but also the moth, and leaves the bark of the tree in a healthy state. I am, yours respectfully,

Joseph Green.

Try a Sample of WOODBURY'S SCALE-BUG EXTERMINATOR AND PREVENTIVE.

FACTS:

First—This is the only preparation which destroys the San Jose Scale or Cottony-Cushion Scale. Any number of mixtures are advertised which profess to destroy the ordinary small insect pests, and which are more or less efficacious against all such as are not protected like the Armored Scale. If the testimonials published in regard to these mixtures are carefully examined, or if the actual work of any of them is thoroughly tested, it will be seen that they have no power whatever against any of the insects which are thus protected. *They cannot penetrate the scale.*

Ours is the only wash that literally consumes, both in larvæ and after development, the Blight Worm, Codlin Moth, Peach Moth, Cottony-Cushion Scale, Woolly Aphis, Red Spider, Black and Oyster Shell Scale. Also, after cleansing, it protects the tree from the formation of young scale. A preparation which would accomplish this at almost any cost would be a boon to the fruit-grower.

But when we mention the second great consideration in favor of this preparation, namely, that it costs only about two cents per gallon, whereas the cheapest washes that have attempted the same work cost six cents, any reason for not trying it should disappear. The actual cost of spraying an ordinary tree with this wash is not more than six to ten cents. One spraying does each year. We guarantee that our wash literally consumes the pest without injury to the tree. Full directions on each package.

Price 3½ cents per Pound by the Case.

Two 40-pound Cans in Case. 10 per cent Discount by the Barrel, 400 lbs.

This is the cheapest possible wash. It is effectual; does what we claim for it. It retains its strength; most other washes when exposed crystallize, become a carbonate. Then their strength is gone. We give full directions, both for the summer and winter wash. They are easy to follow, so that it is impossible for the fruit grower to in any way injure the tenderest shrub or tree, or fail to remove the insect or bug, either mature or in the germ. All trees washed with this preparation will show a more thrifty growth and better general appearance.

Try it and you will find it is the solution of the scale-bug question. Address,

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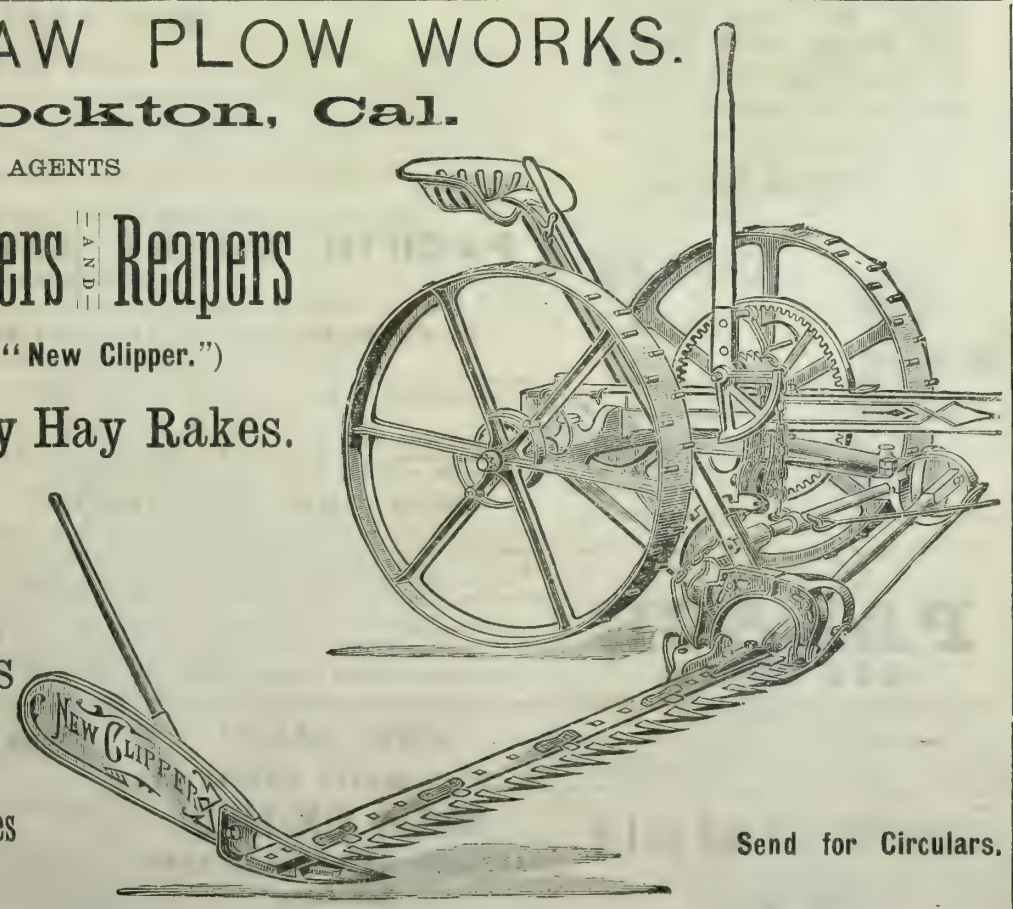
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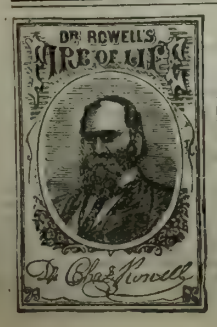
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THE WASTE OF WOOD.—It has been estimated by competent persons that, comparing the dead weight of a tree as it stands in the forest with the dead weight of the lumber that is obtained therefrom, not more than 25 per cent is actually delivered in the timber market. The remainder consists of limbs and slabs, roots and edgings, and buttings and waste in general, in the forest and at the sawmill. However extravagant and wasteful the timber trade may have been in time past, it may now be noted with satisfaction that, owing to the increased demand in various directions for these so-called waste products, it is likely that the proportion utilized will be reversed, and the loss not exceed 25 per cent, even if it reaches that amount. This is especially due to the growing uses for wood pulp, which now enters not only into the manufacture of paper—in itself a vast industry—but also finds employment in many other directions of almost equal magnitude.

THE SETTLER WAS AHEAD.—On the 9th inst. Acting Sec. Muldrow of the Interior Dep't affirmed the adverse decision of the Commissioner of the General Land Office in the case of Robert Elwell vs. the N. P. R. R. Co. claiming a certain eighth section in Walla Walla, W. T. The appeal was made by the company respecting an application to surrender a patent for amendment. The railroad company claimed the land under a withdrawal from the public domain that had been made for its benefit, but the decision is that Elwell had a prior claim to it by reason of prior settlement and continuous occupation and cultivation of the tract.

CAN'T "MAKE THE BUSINESS RESPECTABLE."—A number of saloon-keepers appeared before the Tulare Supervisors, April 6th, asking for the abrogation of that portion of the liquor-license ordinance which requires a bond in the sum of $2000 as a guarantee for keeping an orderly house. They claimed that it would be impossible for the great majority of saloon-men to secure the bond—though they could easily secure the requisite signatures of 10 freeholders.

PEACHES IN JERSEY.—At a recent meeting of the horticulturists of Hunterdon and Warren counties, N. J., it was generally admitted that the fruit crop, especially of peaches, promises to be uncommonly large—perhaps the heaviest for years.

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Also, 3240 Acres adjoining the TOWNSITE OF MONTAGUE. For further particulars, call, from 10 A. M. to 2 P. M., at room 2, 116 California Street, San Francisco, Cal., C. C. WEBB.

20-ACRE TRACTS.

Fine, rolling, cleared, reddish-brown land, under cultivation in the Shasta Fruit and Raisin Colony. Twenty acres for $500. Terms: $200 cash, and balance in installments to suit purchaser, at 8 per cent per annum. Any tract will be set in raisins or fruit and brought to bearing by proprietor of colony, if desired Send stamp for circular, and state how you wish the installments. GRIFFIN BROS., Cottonwood, Shasta Co., Cal.

GRAND AUCTION SALE!

—BY—

EASTON & ELDRIDGE,

AUCTIONEERS, OF SAN FRANCISCO,

—AT—

TEMPLETON, SAN LUIS OBISPO CO.,

—ON—

THURSDAY, FRIDAY and SATURDAY, April 14, 15, & 16, 1887,

—OF THE—

Paso Robles, Santa Ysabel, Eureka and Huer Huero

RANCHOS!

Also, TOWN LOTS in the Rapidly Growing Village of

TEMPLETON!

And 5, 10 and 20 ACRES, and Larger Subdivisions,

BY ORDER OF THE

WEST COAST LAND COMPANY

(A CORPORATION).

Will Sell Without Reserve, Property Described as Follows:

PASO ROBLES RANCH,

Of 20,400 acres, less 6000 acres sold to settlers in the past four months;

THE SANTA YSABEL RANCH,

Of 20,200 acres;

THE EUREKA RANCH,

Of 11,000 acres, and 12,000 acres of the

HUER HUERO RANCH,

All lying in a body, on the S. P. R. R., at its terminus in SAN LUIS OBISPO COUNTY.

AT PUBLIC AUCTION

THURSDAY, FRIDAY and SATURDAY, April 14th, 15th, 16th,

AT 12 O'CLOCK, NOON, EACH DAY.

These are all Agricultural and Fruit Lands, in quality equal to any in the State, with an average annual rainfall exceeding that of Santa Clara County, and require

NO IRRIGATION!

Title United States Patent, and to be free and clear of all incumbrances.

TERMS OF SALE.

Lots in Templeton, cash, U. S. Gold Coin. All other tracts one-third cash; balance in 4 equal payments at 2, 3 4 and 5 years; interest, 6 per cent per annum. The mortgage tax paid by the mortgagee makes the interest about 4 per cent net to the purchaser.

An additional charge will be made of $5 for the deed in sale of town lots, and $15 in other cases for expenses of sale, including making and recording all papers.

Schedule price of ranch subdivisions average $20 an acre; and for 5 to 12-acre lots, $50.

Ten per cent of cash payment (but in no case less than $100) required at fall of hammer; 30 days to complete sale. Parties failing for 30 days, forfeit sum paid.

Parties going from Los Angeles take P. C. S. S. Co.'s Steamers from San Pedro to San Luis Obispo.

The Above Auction Sale is made under the Auspices of the

PACIFIC COAST LAND BUREAU!

(A CORPORATION)

PRINCIPAL PLACE OF BUSINESS, OPP. PALACE HOTEL,

No. 618 Market Street, and 15 and 17 Post Street, San Francisco.

Sub-Agencies in Each County Seat of the State.

President .....WENDELL EASTON | Treasurer.....ANGLO-CALIFORNIAN BANK
Vice President & Gen'l Manager.....GEO. W. FRINK | Secretary.....F. B. WILDE

EASTON & ELDRIDGE, Auctioneers.

Parties wishing to Inspect said Lands, with a view to purchasing at the Auction, or any of the Company's Lands at Private Sale, will be shown the property free of charge by applying at the Company's Office in Templeton.

$6.00—AN EXCURSION TRAIN—$6.00

Will leave foot of Fourth and Townsend streets, San Francisco, April 13th, at 8:30 A. M., stopping at all way stations, where tickets can be secured either at station or on train, and arriving at Templeton at 5:30 P. M. Round-trip tickets, $6, good until MONDAY, April 18, 1887. Usual fare one way, $8

Maps of all the ranch subdivisions of Templeton, of the 5 to 12-acre suburban lots, and a general map showing the location of the Company's lands, with a new descriptive catalogue, will be sent free on application.

C. H. PHILLIPS, Manager, Templeton, Cal.

And for further particulars, catalogues, etc., address, PACIFIC COAST LAND BUREAU, or EASTON & ELDRIDGE, Auctioneers, 618 Market street, opposite Palace Hotel, San Francisco.

LOS ANGELES LAND BUREAU, 20 West First street, Los Angeles.

PACIFIC COAST LAND BUREAU, 826 Fifth street, San Diego.

FOR SALE!

A Fresno County RAISIN VINEYARD.

ALFALFA and GENERAL FARM.

800 Acres.

Under a fine state of cultivation and irrigation. Fences, buildings, ditches, levees and checks built in the most substantial manner. Soil unexcelled, as growth of products show. Located near one of the most thriving towns on the S. P. Co.'s Railroad. **Two hundred and twenty-eight acres in vines**, from one to six years old; all have been planted and cultivated by the most experienced vine-growers, and will soon be a prominent Raisin Vineyard of Fresno County. About 200 acres in Alfalfa. The rest of the land is now in grain crops. The farm is well stocked with horses, mules, cattle and hogs. This is a good, substantial interest-paying investment with a great future Will be sold at a very reasonable price, with easy terms of payment if required. For full information and map, apply to

ALBERT E. CRANE,
410 Montgomery Street, San Francisco,
Agent for sale of all kinds of Country Property.

Choice Homes in Contra Costa.

Improved Places for Sale near Walnut Creek.

One lot of 11 acres, with house of six rooms; pantry, milk-room and summer kitchen, in good repair; barn, chicken-house, etc., and fine orchard of various fruits. Situated within 1½ miles of the village of Walnut Creek, this offers an almost ideal home to those desiring a sheltered spot in an almost perfect climate. Price, $2000.

Also, 12 acres close by the same village, half set to Zinfandel grape-vines, just coming into bearing, with four-room house—hard-finished and nearly new—stable, etc. Price, $2300. Wells of excellent water on both places.

For further information, address
H. F., Box 2361, S. F.

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. 20,000 acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

The Fruit-Growers' Convention at Riverside.

As we go to press the Fruit-Growers' Convention and Citrus Fair are in progress at Riverside. The RURAL PRESS has a special representative present, to whose letters we shall trust for a full account of the proceedings in future issues. The following accounts of the meetings come by telegraph:

First Day.

RIVERSIDE, April 11.—The Fruit-Growers' Convention met here this afternoon. It was opened with an address by the president of the State Board of Horticulture, Ellwood Cooper of Santa Barbara, who reviewed the work of the convention from the date of its organization to the present time. He referred to the failure of needed legislation by the late Legislature and the failure of the Appropriation bill for the State Printing Office, which crippled its resources to such an extent that the proceedings of the last two State conventions could not at present be published. He was followed by H. J. Rudisill, who delivered an address of welcome on behalf of the citizens of Riverside.

The convention was then fully organized by the election of S. C. Evans and L. M. Holt as vice-presidents and B. M. LeLong of Los Angeles as assistant secretary. Elwood Cooper was ex-officio president of the convention and J. Chester of San Francisco was secretary. E. W. Holmes and H. J. Rudisill of Riverside and I. A. Wilcox of Santa Clara were appointed a Committee on Program.

A very able paper on Japanese fruits, by Mrs. H. H. Berger of San Francisco, was read and discussed at length.

Prof. C. V. Riley, United States entomologist, is here, and will address the convention to-morrow on the subject of insect pests. To-day Professor Riley has taken a trip through Riverside, and wonders at the clearness of the trees and freedom that our orchards enjoy from all kinds of insect life. He urges strong quarantine regulations to keep out the pests which threaten so much destruction in other parts of the State.

The convention was held to-day in the Baptist church, in order to give the people time to arrange the fruit exhibits in the pavilion, and the day has been thoroughly occupied by placing in shape one of the finest exhibits of citrus fruits ever seen in this State. The space is limited, as only one-half of the pavilion could be used by the exhibit, while the other half is seated to accommodate an audience of 500 people. The exhibit covers five long tables. The center table is occupied by Griffin & Skelly, fruit packers. This firm has purchased the bulk of the Riverside crop, and have on their table some of the finest fruit to be found in the valley. It is due to the energies of this firm that the price of Riverside oranges rallied from the first scare and gradually advanced until they are quoted in Chicago at from $4 to $7 a box, and they are now reaping the reward of their energy and pluck.

The Interocean Cold Storage Company has a fine exhibition of oranges and lemons that were kept in cold storage for 48 days, then removed two weeks ago and repacked, at which time every sample was in a perfect state of preservation, and to-day they were sampled and found to be perfect in every respect, thus proving the proposition that fruit will keep after being taken out of cold storage.

The Colton Marble Company has on exhibition a fine collection of marble samples and onyx taken from Slaver mountain, seven miles north of Riverside. The onyx is worth in the rough $35 per cubic foot in the New York market.

Second Day.

RIVERSIDE, April 12.—The attendance at the State Fruit-Growers' Convention was increased to-day and much interest was manifested. Professor C. V. Riley delivered a very able address on insect pests, which was listened to with marked attention and was followed by a very interesting discussion. W. G. Klee, State Pest Inspector, also delivered an able paper on the same subject. Professor Riley urged the use of kerosene emulsion spray for the extermination of the cottony cushion scale by means of a cyclone nozzle. The question of interstate commerce will be discussed to-morrow.

HEREFORDS.—Readers who have noticed the mention we have made from time to time of the Hereford cattle from the herd of James Kay, the famous English breeder, will be interested in an advertisement on page 346 of this issue, showing that the cattle are to be sold at auction by Killip & Co., at the agricultural fair grounds in Sacramento, on Wednesday, April 27th. The Herefords are becoming very popular on this coast as beef cattle, and the sale should draw a crowd.

ONE branch of useful industry upon this coast likely to profit largely by the Interstate Commerce Act, is the manufacture of breakfast cereals. Having the raw material close at hand, the work of preparation need not be loaded with the extra cost of transcontinental freighting.

PLEURO-PNEUMONIA IN ARKANSAS.—In response to a telegram from the Governor of that State, the Commissioner of Agriculture has ordered an inspector to proceed to Arkansas and examine some herds of cattle which are thought to have pleuro-pneumonia.

Stockton Notes.

[Written for the RURAL PRESS by MRS. W. D. A.]

Farmers' faces have shortened one-half, and shine with satisfaction at the fine rain, just in time to save the crops which in some places began to show checked growth and curl of blade. The six weeks' spell was broken the night of the 6th by a shower; but a north wind cleared the sky and hope sank till the 8th, when the moon fulled and a rain of more than an inch poured down, with an hour's high wind, that twisted large limbs and tops from the big full-leaved oaks, and scattered buds and boughs from the orchards. Flashes of lightning brightened things also.

The night of the 7th was brilliant with moon and stars, and with the star tragedian, Edwin Booth, at the new theater, whose nerve and quiet power, intensified by years of study, charmed the full audience. Messrs. Southworth and Humphreys, owners of the theater, deserve thanks for getting the greatest of living actors here.

Friday night 12 wheat-buyers came from San Francisco, and after the big rain on Saturday, drove in three hacks to look at the crop prospect between here and Lodi, along the good gravel road. Some offer to buy the growing crop at $1.75—the farmer taking the risk of no crop. There is little doubt of the yield being fair now. True, hot showers in June might rust it somewhat and blizzards on sandy soil blow the roots bare.

The Shippee Harvester Co. has made 125 of the unrivaled Houser machines, 100 of which were conditionally sold; but this rain assures two-thirds of a crop, at least, and the sale of all the machines.

The rain is timely for the vineyards and orchards, set all over the county this season, in from a half acre to 60 acres. Many cuttings are being sprouted, too. A farmer near Lodi set 1500 nut trees; another, two years ago had nearly a ton of almonds from 150 trees. Last year red spiders injured the crop; early spraying destroys most of them. Eastern people are buying small tracts and making homes thereon, and will raise grapes and fruit, and, in time, increase the pupils in our small but excellent country schools.

A grand picnic will come off April 23d at Good Water grove (donated), given by the G. A. R., Pioneers, Grangers, and Ladies' Relief Corps. We hope that every one will turn out, as a fine oration, music, recitations and games will repay the lovers of fun and aid a worthy object. We ought not to be left to monopolize all the honors to the humane Gridley, for he is the hero of Nevada and our whole State and coast.

Stockton, April 12, 1887.

Yolo County Items.

EDITORS PRESS:—I can report flattering prospects in this part of the Sacramento valley, as we have received the early and the latter rain, and now, with the heavy dews that usually come from this time on, I think the crop is assured, even without more rain; but it is still showery, and the weather is by no means settled. The grain is looking finely—could hardly be better.

The dry weather during the greater part of March enabled the owners of orchards and vineyards to put their ground in good condition and to eradicate the winter growth of weeds. Strawberries are beginning to ripen and promise an unusually heavy yield. Peaches are not heavily loaded, but pretty well distributed on the trees and will be large. Apricots will have to be thinned to keep the trees from breaking down, especially the Moorparks. The new Peach is nearly the same. It seems that the Moorpark is trying to redeem its lost, or failing, reputation as a good bearer this year, and now if that embargo on freight East can be raised, I see nothing in the fruit-growers' horizon to prevent his realizing something this year to compensate him for the time, labor and brains he has put into the business.

A Board of Trade was organized in Woodland last Saturday night for the purpose of letting our advantages be known to the home-seeker from the other side of the Rockies. Land here is being divided into small parcels for persons of small means—5, 10, 15 and 20-acre lots—at $100 per acre; and better land for fruit, especially the raisin grape, the sun does not shine on in California.

We tried planting the whole potato last year and got more potatoes per acre; also more small ones and more large, overgrown ones, composed of many in one. The eye in the piece gives a better average size and more marketable; and beside, this year, owing to the price of seed, it is more economical. If seed is low and land scarce, plant whole ones; if the reverse is true, then cut according to cloth is our motto More anon. J. B. SPRINGER.

Woodland, April 11, 1887.

A NEW PACKING FOR FRUIT.—There has long been a call for some material, cheap and abundant, which will answer as well as cork-dust to pack fruit in. It appears, by the Auburn *Republican*, that T. S. Fitch, of Lincoln, has found the article desired in ground corn-cobs. The material is as light as cork-dust and imparts no smell nor flavor to the fruit. Mr. Fitch has applied for a patent on his discovery.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Apr. 7-13.	Portland. Rain.	Temp.	Wind.	Weather.	Red Bluff. Rain.	Temp.	Wind.	Weather.	Sacramento. Rain.	Temp	Wind	Weather.	S. Francisco. Rain.	Temp.	Wind.	Weather.	Los Angeles. Rain.	Temp.	Wind.	Weather.	San Diego. Rain.	Temp.	Wind	Weather.
Thursday	.66	52	S	Cy.	.46	59	SE	Fr.	.35	57	Nw	Fr.	.45	57	W	Cl.	.00	65	SW	Cy	.00	63	W	Cy.
Friday	.04	55	Nw	Cy.	.00	58	S	Cy.	.00	54	SE	Th	.25	51	SE	LR	.01	68	SW	Fr.	.31	62	SW	Fr.
Saturday	.01	47	Nw	LR	.82	50	SE	LR	1.47	52	S	Cy.	1.25	54	Nw	Cy.	1.05	61	W	Cl.	.78	58	Nw	LR.
Sunday	.22	46	S	Cy	*.—	55	N	Fr.	.03	55	Nw	Cy.	.00	53	W	Fr.	.00	62	W	Fr	.25	57	W	Cy.
Monday	01	53	S	Cy.	.00	59	N	Cl.	.00	56	Nw	Cl.	.00	57	SW	Cl.	.00	58	Nw	Cy.	.19	56	W	Cy.
Tuesday	.37	46	S	LR	*.—	54	W	LR.	.00	58	SW	Fr	.00	57	SW	Cy.	.-	65	SW	Cl	.00	60	SW	Fr.
Wednesday	*.—	52	Nw	Cy.	.01	59	E	Cy.	.09	58	Nw	Cy.	.05	55	W	Cy.	.00	61	S	Cy.	.00	63	SW	Cy.
Total	1.31				1 29				1 94				2 00				1.06				1 53			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING APRIL 5, 1887.

360,504. — ELEVATOR—Henry Albert, Crescent City, Cal.

360,571.—SULPHUR SPRINKLER — John Fatjo, Santa Clara, Cal.

360,581. — SCREEN BOTTOM FOR FILTERING TANKS—A. Gaukroger, S. F.

360,773.—VAPOR BATH—E. Hosford, Oakland, Cal.

360,707. — CLOD-CRUSHER—D. Lubin, Sacramento, Cal.

360,535.—PIN-RAIL ATTACHMENT FOR VESSELS —J. McKeon, S. F.

360,539.—EXCAVATING MACHINE—E. Remillard, Oakland, Cal.

360,831. — CAR COUPLING—S. Truax, Truax Landing, W. T.

360,832.—CAR COUPLING—S. & E. H. Truax, Truax Landing, W. T.

360 499. — PHOTOGRAPHIC APPARATUS — A. P. Whittell, S. F.

14,230.—TRADEMARK — H. E. Holmes, Walla Walla, W. T.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

"Said Aaron to Moses,
Let's cut off our noses."

Aaron must have been a sufferer from catarrh. The desperation which catarrh produces is often sufficient to make people say and do many rash things and many continue suffering just as if no such cure as Dr. Sage's Catarrh Remedy existed. It cures every case from the simplest to the most complicated, and all the consequences of catarrh. A person once cured by Dr. Sage's Catarrh Remedy will not be apt to take cold again, as it leaves the mucous membranes healthy and strong. By druggists.

"I Don't Know What Ails Me."

Says many a sufferer. "I have the 'blues' frightfully; I am troubled with headache and dizziness; I have lost my appetite, there is a bad taste in my mouth constantly. What is the matter with me?" We will tell you; you are "bilious." Get a bottle of Dr. Pierce's "Golden Medical Discovery," use it faithfully, and you will soon be a new man again. All druggists have it.

Use the surest remedy for catarrh—Dr. Sage's.

A Perfect Tree Wash for Summer.

In response to inquiries, too many to answer by mail, I wish to assure all interested that my SCALE-BUG EXTERMINATOR is unequivocally *guaranteed* to be *perfectly harmless to the tenderest tree or shrub.* You can use it with perfect confidence when your trees are in full foliage and the fruit set. There has never been a single instance of the slightest injury from it. The trees come out from it as from a healthful bath. See advertisement in another column. Address, CHARLES J. WOODBURY, 123 California St., San Francisco.

A GOOD WORD FOR TOPOLOBAMPO.—The Auburn *Argus* of the 9th inst. says that L. A. Gould, who went to Topolobampo, Mexico, last autumn with the colonists, is still there and appears to be satisfied with things as he finds them. He writes his friends that the clamor in the papers is unwarranted, that the Owens have been made the objects of attack of envious people, and that the colony is all right, or likely to be so if left to itself. Mr. Gould went down to take charge of a ditch enterprise.

Climax PATENT Crates and Baskets. The best made. Indorsed by all leading berry growers. Prices low. Illustrated Catalogue free.
DISBROW M'FG CO., Rochester, N. Y.

THE DOG In health, habits and disease. All breeds and treatment; 50 cuts; 25c. This office.

HAY PRESSES.



THE HURRICANE,

A Mounted Double-Ender Baling Machine, capable of baling 40 tons per day.

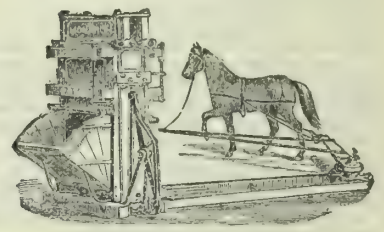
ITS RECORD

For the first year of its existence is as follows: Four tons in one hour, nineteen and three-quarters tons in a half day, thirty-seven and one-quarter tons in one day, and 1800 bales in six successive days.

Two sizes: Compressed bales and common bales. Improved this year so that it is nearly one-quarter faster than before, and the back-and-forth movement of the horse lever is made to bring the hay across the stack and hoist the bales into a pile.

Has three or four times the capacity of Eastern-made presses, with the same number of men and horses.

Price, at factory, San Leandro, Cal., $1000.



THE JUNIOR MONARCH

Does its own Tramping. Feeds at Side, near the Bottom.

HAS THE FOLLOWING RECORD:

33 tons in one day; 105 tons in 3½ days; 20 tons, and over, daily average for the season; 2350 tons with one press in one season; 23 sold in one valley last season.

Price, at factory, San Leandro, Cal., $500.



—THE—

Genuine Price Petaluma,

With Latest Improvements.

Made under the supervision of the inventor, JACOB PRICE. Too well known to need further description. First-class material and workmanship Capacity, from 10 to 18 tons per day. Hay must be tramped in press.

Price, at factory, San Leandro, Cal., $350.

Send for large illustrated Catalogue of above presses. Office and Factory, SAN LEANDRO, CAL. Address

PRICE HAY PRESS CO.

FARMERS, ATTENTION!

If you wish to sell or exchange your ranch for other property, place it in the hands of

J. F. SCHOTTLER & CO.,
223 Kearny Street, San Francisco.
Established 12 years.
No charges unless sale is made.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

O. J. ALBEE, Lawrence. Pedigreed Scotch Collie Pups. Also, Eggs, balance of season, from best fowls, $3 per two settings.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

E. H. FREEMAN, Santa Clara, Cal., importer and breeder of poultry. Send for new illustrated circular.

S. E. CHAPMAN, 1034 Guerrero St., S. F., Thoroughbred Golden Pheasant Fowls and Hatching Eggs.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

F. PEREZ, Florin, Cal. Plymouth Rocks and Brown Leghorns. Eggs for sale.

PIEDMONT POULTRY YARDS, J. N. Lund, Box 116, Oakland, Cal.

T. D. MORRIS, Sonoma, Cal. Toulouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 160 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

HORSES AND CATTLE.

THE BEST HERD OF JERSEYS, all A. J. C. C. registered, is owned by Henry Pierce, San Francisco.

H. W. COWELL, Stockton, "Morrano Farm," breeder and importer (and agent for Leonard Bros., Mo.) of Aberdeen and Galloways. Young stock for sale.

ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

T. E. MILLER, Beecher, Ill. Oldest and best herd Hereford Cattle in U. S. Cattle delivered in California.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

W. J. MARSH & SON, Dayton, Nevada. Registered Shorthorns of choicely bred strains.

H. van der STRATEN, Hopland P. O., Durham Valley Farm, Mendocino Co., breeder of Shorthorn Cattle (registered). Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

Estate of M. E. BRADLEY, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. burke, 401 Montgomery St., S. F.

E. J. TURNER, Hollister, Breeder of Percheron-Norman registered Horses and Roadsters.

E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

SHEEP AND GOATS.

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

JOHN FATJO, Santa Clara, 70 head of Angora Goats. Imported Buck for sale cheap

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

T. H. HARLAN, Williams, Colusa Co., breeder pure blooded Angora goats, & Merinos; young stock for sale.

EASTON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

E. W. WOOLSEY & SON, Fulton, Sonoma Co., imp'rs & b'ders Thoroughbred Merino, & Jersey Cattle.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

SWINE.

L. L. DICKINSON, Lone Oak Farm, Sonora, Tuolumne Co., Cal., breeder of thoroughbred Essex Hogs. Pigs now ready for sale. Prices reasonable.

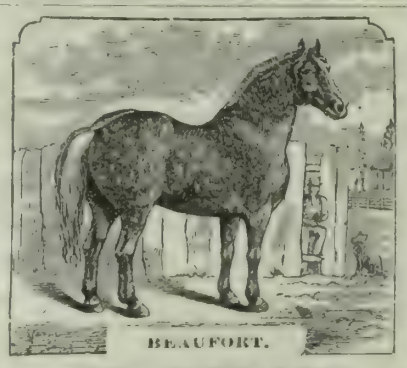
JOHN RIDER, Sacramento, Cal. Breeder of Thoroughbred Berkshire Swine. My stock of Hogs are all recorded in the American Berkshire Record.

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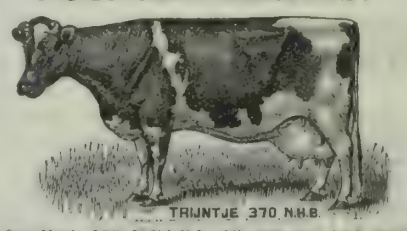
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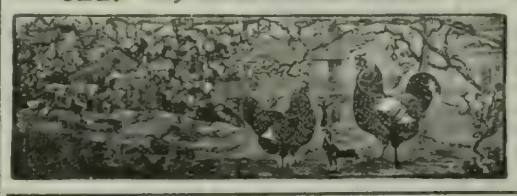
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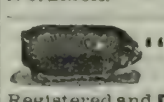
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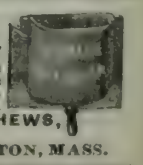
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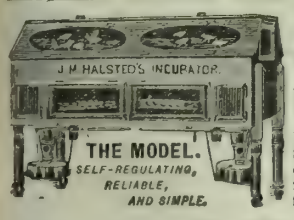
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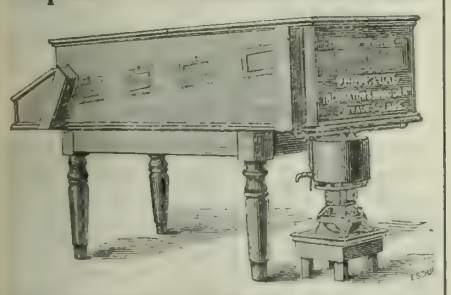
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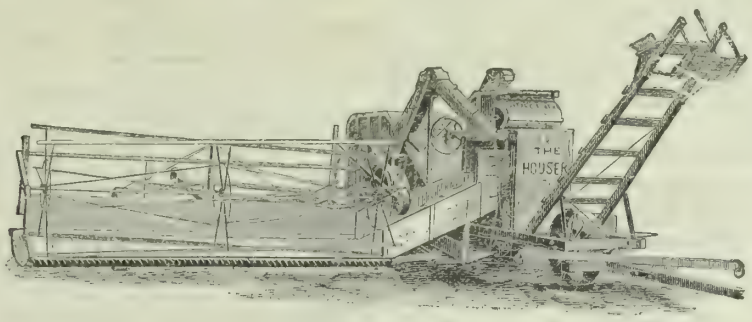
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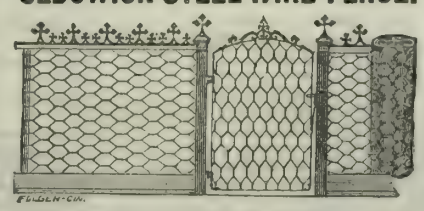
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 13, 1887.

General rains fell throughout the State three days the past week, cheering all. The rains, if followed more from time to time in this month, assure a large yield of cereals on the foothill lands, lowlands, and irrigated lands; but owing to the north winds in May and June, crops on the plains cannot be counted as sure until harvested. The rains have helped garden-stuff and also improved pasturage in many sections. The Eastern and European wheat markets have ruled barely steady throughout the week, with fluctuations reported in the Eastern markets. London cables received to-day are as follows:

LONDON, April 13.—Cargoes off coast, dull; cargoes on passage and for shipment, neglected; Mark Lane, turn easier; Cal. wheat just shipped, 39s; Cal. wheat nearly due, 38s; French country market, quiet; Liverpool wheat, spot, white firmly held; red, very dull; Liverpool wheat, Cal. 7s 6d to 7s 9d; weather in England, unspringlike.

Foreign Review.

LONDON, April 11.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: The wheat markets have been of a holiday character. Prices are unchanged. Foreign wheat is a shade weaker. Corn, oats, and all other articles are dull. The trade for wheat cargoes on passage or for shipment is at a standstill. There was no market to-day.

The Turkish Prune Trade.

NEW YORK, April 7.—The Turkish prune plot thickens, and trade is somewhat at a loss as to the next move of the syndicate. The estimate of the crop was placed by them in their original circular at 22,000 casks. Up to date 25,000 casks have been received here, and upon the way there are now 5200 casks, making the crop thus far 30,200 casks—8200 casks in excess of the syndicate estimate. Included in the quantity upon the way is 1400 casks which left Trieste on the 4th inst. It is reported on the street that the program of slate offerings has been continued. Hereafter sales will be made as the stock is required, by the trade. It is also said that the syndicate will to-day entertain offers of 5c. From reliable authorities in Europe information is received that the crop of Bohemian prunes reaches a total equivalent to 32,000 casks, of which quantity this country takes 13,000 casks.

Crops at the East.

CHICAGO, April 10.—Following is the weekly summary of the *Farmers' Review:* Complaints of drouth now come from all parts of the interwheat belt and are numerous in Ohio, Indiana, Illinois, Kansas, and Missouri. In nearly every county of Illinois the reports indicate that the ground is dry, and, together with the prevalence of cold winds, has retarded the growth and caused some injury to growing grain. Spring seeding has commenced in Illinois, Iowa, and Nebraska, but not under favorable conditions, owing to the dry weather. The fruit prospects in Illinois, Indiana and Missouri are poor, peaches especially having been injured, and there will be a short crop. In Ohio and Wisconsin fruit prospects are considered good.

Eastern Wheat Markets.

NEW YORK, April 10.—The aggregate number of bushels sold for the week has been rather moderate. The demand of both shippers and millers was light. Spot closed fairly steady at 1@1¾c higher for the week. Futures, unsettled at ⅛@1⅛c higher for the week.

NEW YORK, April 13—12 M.—93c for cash, 91⅝c for April, 91½@91⅝c for May, 91¼@91⅜c for June, 91⅜c to 91¼c for July and 90½@90⅝c for August.

CHICAGO, April 13—1 P. M.—Wheat stronger; cash, 79⅛@82c; May, 73⅞c; June, 71⅛c.

Eastern Wool Markets.

BOSTON, April 9.—There has been no improvement in the demand for wool. The sales of wool have been only 1,558,000 lbs of all kinds. Manufacturers continue to move slowly, and confine purchases to immediate wants. The only movement of any importance has been in Territory wools, which have been sold quite freely at low prices. The most important news in relation to the California clip is the reduction in freights which has taken place. Rates are more satisfactory, but still too high to admit of any profit in the handling of California wool at current value, for it is expected there will be a further reduction. There is considerable new spring wool on the way here, something like 750,000 lbs It is estimated this comprises the early arrivals at San Francisco, cleaning out that market. Wool was hurriedly shipped to take advantage of the rise in freight. Oregon wool is in fair demand, with sales of 55,000 lbs, at 16 to 21 cts; 20,000 lbs Eastern at 17 to 20c; 20,000 lbs Eastern at 18c; and 15,000 lbs on private terms. California fall wool sold to the extent of 90,000 lbs, but no prices could be learned.

NEW YORK, April 10,—The market remains dull and easy, Fine wools are held quite steady and sales were generally made at full prices. The sales of the week included 25 bales scoured California at 50c; 50,000 lbs Territory at 21c; 50 bales Colorado, 14,000 lbs scoured superior pulled, 20,000 lbs Oregon, and 10,000 lbs Montana on private terms.

New York Hop Market.

NEW YORK, April 10.—Transactions run almost wholly on small lots, medium and common qualities, that may be picked up cheap, with foreign goods figuring most conspicuously in the little business passing. Choice quality of Bavarians and Pacifics being in only moderate supply are held somewhat firmly, but find an outlet only to a very moderate extent. New York State, 1886, best, 20c; do common to good, 15@18c; do 1885, best, 11@12c; Pacific Coast crop, 1886, best, 20@22c; do common to good, 16@19c; do 1885, good to prime, 1@10c; German crop, 1886, best, 20@23c; do common to good, 14@18c.

California Fruit in Chicago.

CHICAGO, April 9.—Oranges are in good request, both on local and shipping account. The receipts from California of oranges are sufficient to fill all orders, the fruit from the Pacific Slope being taken in preference to that grown in other parts. The demand is only for the best and choicest grades, which are ruling firm, while cheap grades are hard to sell. Prices from the *Official Circular:* Bright Riverside, $3.50@4; San Bernardino, $3.50@4.25; Santa Ana, $3@3.25; Los Angeles, $2.75@3.25; Navel oranges, according to quality, $5@6; Duarte, $3@3.50; San Gabriel, $2.75@3; blood oranges, fancy, $5.50@7.75.

A moderate business is doing in dried fruits, yet not of sufficient magnitude to cause much change in the market. Stocks of dried fruits are, as a rule, small, and as a general thing a steady feeling prevails. Choice quarter apples appear to be in fair request and there is no trouble in selling evaporated, but common grades of quarters rule rather neglected. Peaches are almost nominal; they are scarce and at the same time without demand. The receipts of California dried fruits of late have been very small, and the market in consequence is quiet. French prunes, ℔ lb, 8@9¼c; plums, pitted, 10@11c; peaches, halves, 11@12½c; do, halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London Layers, 20-lb boxes, ℔ box, $1.40@1.50; loose Muscatel, ℔ box, $1.20@1.30; California Layers, ℔ box, $1.25@1.35.

Dried Fruit and Canned Goods East.

NEW YORK, April 10.—Canned Goods—The demand for most goods is hesitating. Buyers are satisfied to purchase from day to day, giving no attention to future necessities. Gallon apples are in better demand and firmer. Tomatoes, quiet. Corn is jobbing fairly. California canned fruit remains quiet and unchanged.

Dried Fruit—California raisins are moving rather more freely. Buyers, however, yet show a preference for dealing in small lots; but frequent drafts of this kind are making inroads into the stock. Prices are being gradually strengthened. Two-crown loose, California, are held at $1.25; three-crown do, $1.50; London Layers, $1.50@1.70.

Prunes—Turkish remain quiet, but firm at 4⅞@5c; Bohemian, quoted firmer at 4c; French, firm at 6¾@7c.

Currants are held steadily and selling at 4⅝c.

Citron, quiet at 17@17¼c.

California Products at New York.

NEW YORK, April 10.—Seeds quiet but steady; California yellow mustard 4¼@5c.

Local Markets.

BAGS—Rains the past week advanced sellers' views, but buyers at 6 cts for July delivery are scarce.

BARLEY—Rains caused a weeker feeling and a stronger selling, bringing about a lower range in values, but with clearer skies the market recovered under steady and free buying, and closing strong. Today's sales on Call were as follows:

Morning Session: Buyer season—100 tons, $1.-08⅜; 200, $1.08½; 100, $1.08¾; 200, $1.08⅞; 900, $1.09; 1400, $1.09⅛. September—100 tons, $1.03. Buyer 1887—100 tons, $1.13; 200, $1.14 ℔ ctl. Afternoon Session: Buyer season—100 tons, $1.-09½; 100, $1.09⅝; 800, $1.09¾; 300, $1.09⅞; 400, $1.10. Seller 1887—100 tons, $1.01½; 100, $1.01¾. No. 1 Brewing, buyer season—100 tons, $1.24. Buyer 1887—100 tons, $1.14¾; 1200, $1.14½ ℔ ctl.

CHEESE—The market is firmer under lighter supplies and a less selling pressure. The trade call is reported good for the season.

EGGS—The market for poorer qualities is very weak under free receipts from the East, but strictly choice are firm at full figures.

BUTTER—Although buyers are talking the market down, still the general tone is steady, with no further decline looked for unless a strong selling pressure sets. Both dealers and sellers are packing.

FLOUR—The market is strong at last week's advance. Several mills have shut down, some compelled to this course owing to the proprietors having shorted wheat on Call, so as to keep prices down.

WHEAT—In the sample market trading continues light, the only sales reported having been made are to short sellers. On Call the past week witnessed a fair degree of activity with a decline under strong selling owing to the rains, but with clearer skies prices recovered. Today's sales were as follows:

Morning Session: Spot, season's storage paid—100 tons, $1.74. Buyer season—100 tons, $1.80⅜; 700, $1.81; 500, $1.81½; 400, $1.81¾; 100, $1.81⅞. May—1300 tons, $1.76½. July—500 tons, $1.77; 600, $1.75¾. Buyer 1887—600 tons, $1.91¼; 100, $1.91½; 200, $1.92. Seller 1887—200 tons, $1.66¾; 100, $1.68⅜; 900, $1.67; 400, $1.67⅛; 1000, $1.-67¼; 300, $1.67⅜; 500, $1.67½; 700, $1.67⅝; 100, $1.67¾ ℔ ctl. Afternoon Session: Buyer season—300 tons, $1.82½. Buyer 1887—400 tons, $1.92½. July—100 tons, $1.77⅛; 200, $1.77¼; 500, $1.77. Seller 1887—500 tons, $1.68¼; 600, $1.68⅜; 400, $1.68½; 100, $1.68⅝ ℔ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Owing to the great strength of the wheat market with all operators crying prices down, saying they are too high, more interest centers in the situation in the United States and Europe. The following is the latest statistical position in this country:

	Bushels.
The wheat crop in 1886	457,000,000
Liberal estimate for visible and invisible stocks July 1 last	80,000,000
Total for year's supply	537,000,000
Consumption for food to March 1 (pop. at 58,000,000)	180,000,000
Winter wheat seeding, 1886	35,000,000
Consumption in manufacturing arts	10,000,000
Exports to March 1, say	104,000,000
Total consumed and exported to Mch. 1,	329,000,000
Total visible and invisible March 1	208,000,000
With quantity of wheat on hand Mch. 1,	200,000,000
We shall require for food	90,000,000
We shall require for seed	18,000,000
We shall require for manufacturing, etc.	5,000,000
Total four months' requirements	113,000,000
If we carry over visible and invisible, July 1 next (as compared with 80,000,000 bushels last year)	50,000,000
We shall want for four months	163,000,000

Which would show but 43,000,000 bushels "available for export" on March 1 last.

The cable reported, March 29, a deficiency of 25 per cent in this year's wheat crop of several important provinces in India, and an indifferent output in several other Indian provinces. The wheat area in India in 1885–86 was 25,350,000 to 25,853,000 acres. The average yield of wheat in India is about 10 bushels per acre. The crop harvested in March–April, 1886, was 256,530,923 bushels, and the exports for the calendar year 1886 were 43,160,000 bushels. The exports for the season ended March 31, 1887, will probably be less than 43,160,000 bushels. Of the exports in 1886, about 54 per cent went to the continent of Europe. The crop of 1886, as indicated by the export movement during February and March, 1887, was probably about exhausted. It was for the week ended March 19 only 60,000 bushels, but was increased in the week ended March 26, 1887, by new crop wheat to 380,000 bushels. The wheat exports from India in April, May, and June, in bushels, were:

	1886. To United Kingdom.	1886. To continent.
April	1,051,597	2,392,738
May	2,788,938	3,964,242
June	3,138,296	2,552,252
Total bushels	6,977,831	8,909,232

The voyage from India to the United Kingdom via canal (including time for discharging cargo) is 45 days. Taking this into consideration, the foregoing India exports in the above months will indicate about what wheat supplies Europe can probably obtain in the three months to end June 30, 1887, on the assumption that the crop output and reserve shall be as large in 1887 as in 1886 and in 1885. During the five months to end August 31, 1887, with the increased continental demand this year over last, it is not probable that the United Kingdom will obtain much to exceed 10,000,000 bushels of wheat from India to supplement her more than 62,000,000 bushels of foreign wheat and flour required in that period.

The wheat crop of Europe in 1886 was 1,178,136,148 bushels, against 1,217,809,309 bushels in 1885. The normal wheat consumption of Europe is 1,372,000,000 bushels annually. Europe's deficiency this season on this basis is 193,863,852 bushels of wheat, which must be obtained from the several wheat-producing countries outside of Europe, against 154,000,000 bushels in 1885–86. As to supplies from Russia, the exports of wheat from the principal ports, not including overland shipments, have been in the 12 months ended December 31:

Bushels. Europe's supplies from	1886.	1885.
Taganrog and Rostoff	7,744,912	14,797,104
Odessa	12,130,400	29,096,000
Nicolaieff	2,487,328	5,625,152
St. Petersburg	10,403,304	12,584,236
Total bushels	32,765,944	62,102,492

Russia's wheat crop of 1886 is reported at 198,135,000 bushels, against 177,753,300 bushels in 1885, but the quality of the 1886 crop is inferior, and may not give, with reserves, little if any more surplus in 1886-87 than in 1885-86.

Crop advices on this coast are favorable for a full average in Oregon, Washington, and Idaho. In this State the rains of the past week greatly benefited wheat, but followed as they were by heavy winds, the moisture in the plains was partly absorbed; but the damp, rainy weather of the past two days has done much good. The plant on the foothills, in the lowlands and irrigated lands, cannot look better. The acreage of the State being less, even with well-distributed rains the outturn will hardly be as much as last year, while with hot north winds later on, the yield will be very considerable less. No one can predict with safety the yield in this State until after harvest, for even in harvest hot winds have been known to shell out more wheat than harvesters.

The wheat market the past week has ruled very strong, owing to light stocks and a large short interest combined, with all advices favoring a better market abroad. Transactions in actual wheat have been light. Two millers are reported to have brought western wheat to this market so as to keep our market down, but as the quality is not up to California wheat, the flour will hardly be as good as if made from the latter.

Barley has held to firm prices throughout the week, notwithstanding the rains. The consumption is increasing and supply decreasing. The acreage seeded to barley is below last year's, but the general outlook is favorable to a fair average yield to the acre.

Under light stocks, with very little to come forward, oats rule strong. The high prices restrict consumption.

Corn is strong at a slight advance; higher freights from the East are against buyers.

Rye and buckwheat are dull.

The demand for ground feed continues fair, with a higher range for bran and middlings, owing to a lessened output, caused by more mills shutting down.

Feedmeal is stronger in sympathy, with an advance in corn.

Hay is firm at full prices. Offerings continue moderate, and as the consumption is large, buyers are compelled to pay full prices, with now and then an advance for choice grades.

Fruits.

Strawberries continue to come forward sparingly, causing fancy prices to rule.

Apples are, as a rule, of poor quality. The demand is slow.

Oranges continue to move off freely, keeping the market well cleaned up from day to day.

Choice limes and lemons are in light stock, with sound good keepers fetching an advance.

All advices concur in reporting the prospects for a large fruit crop never better.

Dried fruits are slow, but as stocks are light, the market holds to strong prices.

Raisins are quiet, but as stocks are light, prices are maintained.

Vegetables.

Onions have been advanced to still higher figures, with stocks light and a good demand ruling.

Asparagus has ruled stronger under lighter receipts. Prices are too high for canners' use.

Under heavier receipts, peas have fallen to low prices, but canners are not disposed to buy yet.

New potatoes continue strong, at high prices, owing to light receipts. The first crop was killed by frosts, but the coming crop promises well. Old potatoes are very strong under a good demand and light supplies.

All other vegetables are fairly steady, under moderate receipts. The late rains have done an immense amount of good.

Live-Stock.

Rains and the prospects of better pasturage cause a stronger holding of both bullocks and mutton sheep. The consumption is increasing since the close of the Lenten season. The drouth in Texas is said to be in favor of this market. Hogs are steady. In horses and milch cows, there is nothing new to report.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 9½@10c; first grade, grass fed, 9@9½c per lb.; second grade, 8@8½c; third grade, 6½@7½c.

MUTTON—Ewes, 6¾@7c; wethers, 7½@8c.

LAMB—Spring, 12½@15c.

VEAL—Large, 6@8½c; small, 5@8c.

PORK—Live hogs, 4¾@5¼c for heavy and medium; hard dressed, 7¼@8¼c per lb; light, 4½@5¼c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	208,425	217,022
In port, disengaged	105,067	39,284
In port, engaged	12,873	42,636
Totals	326,365	298,942

The above gives a carrying capacity as follows: 1887, 524,667 short tons; 1886, 478,300 short tons; increase over last year, 46,360.

Wool is unsettled, owing to the uncertainty regarding what will be the freight rates to the East, and until this is settled buyers will not operate except at very low prices.

In hops there is nothing new to report. The demand is only fair for local use, and absolutely nothing for the East, owing to the unsettled condition of freights.

Pink and white beans are dull and heavy, under freer offerings, but other varieties are fairly steady.

Honey and beeswax are quiet, but steadily held.

Seeds are reported unchanged, but the general feeling is easy.

Poultry continues to come to hand sparingly, particularly choice conditioned, which causes a strong market to rule.

Nuts are firm, with the stock on hand light.

The stock of dried fruits is very light, which causes a strong market at full prices. Raisins, if choice and in attractive boxes, are steady, but the poorer qualities are hard to sell.

Tallow is firm at full prices, owing to lighter supplies, but hides are weak.

San Francisco, April 13, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 13, 1887					
BEANS AND PEAS.			Paper shell	18 @	20
Bayo, ctl	2 00 @	2 25	Brazil	11½@	13
Butter	1 60 @	1 75	Pecans	9 @	11
Pea	1 75 @	1 90	Peanuts	4½@	5
Red	1 40 @	1 55	Filberts	10 @	11
Pink	1 25 @	1 40	Hickory	7 @	8
Large White	1 75 @	1 85	POTATOES.		
Small White	1 75 @	1 90	Burbank	2 00 @	2 75
Lima	1 75 @	2 25	Early Rose	1 80 @	2 40
Fid Peas, blk eye	1 00 @	1 05	Cuffey Cove	1 80 @	2 25
do green	1 00 @	1 12½	Jersey Blues	2 00 @	2 25
do Niles	1 25 @	—	Petaluma	— @	—
BROOM CORN.			Tomales	1 80 @	2 20
Southern per ton	50 @	75	River reds	1 70 @	2 00
Northern per ton	50 @	75	Humboldt	2 00 @	2 35
CHICORY.			do Kidney	2 00 @	2 50
California	4 @	4½	Chile	— @	—
German	6½@	7	do Oregon	1 65 @	1 95
DAIRY PRODUCE, ETC.			Peerless	1 75 @	2 45
BUTTER.			Salt Lake	— @	—
Cal. fresh roll, lb	14 @	17½	New Potatoes	2½ @	4
do Fancy br'nds	18 @	19	POULTRY AND GAME.		
Pickle roll	— @	—	Hens, doz	6 00 @	8 00
Firkin, new	16 @	20	Roosters	6 00 @	11 00
Eastern	— @	—	Broilers	5 00 @	8 00
CHEESE			Ducks, tame	8 00 @	10 00
Cheese, Cal., lb	8 @	10	do Mallard	3 00 @	—
Eastern style	11 @	12	do Sprig	1 00 @	—
EGGS.			Geese, pair	2 00 @	2 25
Cal., ranch, doz	17 @	18	do Goslings	2 50 @	3 00
do, store	14 @	16	Wild Gray, doz	75 @	1 50
Ducks	— @	—	Turkeys, lb	21 @	23
Oregon	— @	—	do Dressed	— @	—
Eastern	14 @	16	Turkey Feathers, tail and wing	10 @	20
Utah	— @	—	Snipe, Eng., doz	— @	—
FEED.			do Common	— @	—
Bran, ton	19 00 @	20 00	Doves	— @	—
Cornmeal	24 00 @	25 00	Quail	— @	—
Grd Barley ton	24 00 @	25 00	Rabbits	1 00 @	—
Hay	10 00 @	14 50	Hare	1 25 @	—
Middlings	24 00 @	25 50	Venison	— @	—
Oil Cake Meal	26 50 @	28 50	PROVISIONS.		
Straw, bale	40 @	60	Cal. Bacon.		
FLOUR.			Heavy, lb	9 @	10
Extra, City Mills	4 50 @	5 25	Medium	9 @	10
do Co'ntry Mills	4 00 @	5 00	Light	11 @	12½
Superfine	3 25 @	4 00	Extra Light	13 @	13½
GRAIN, ETC.			Lard	8 @	12
Barley, feed, ctl	1 05 @	1 12½	Cal. Smoked Beef	11½@	13½
do Brewing	1 10 @	1 20	Hams, Cal	11 @	14
Chevalier	1 45 @	1 60	do Eastern	14 @	15
do Coast	— @	—	SEEDS.		
Buckwheat	1 00 @	1 20	Alfalfa	8 @	9
Corn, White	1 07½@	1 15	Canary	3½@	4
Yellow	1 05 @	1 10	Clover red	10 @	12
Small Round	1 10 @	1 20	White	15 @	17
Nebraska	1 05 @	1 10	Cotton	20 @	—
Oats, milling	1 85 @	1 90	Flaxseed	2 @	—
Choice feed	1 75 @	1 80	Hemp	4 @	4½
do good	1 65 @	1 70	Italian RyeGrass	25 @	—
do fair	1 55 @	1 60	Perennial	7 @	8
do black	@	—	Millet, German	4½@	5
do Oregon	— @	—	do Common	7 @	10
Rye	1 10 @	1 25	Mustard, white	2 00 @	2 75
Wheat milling.			Brown	2½@	3
Gilt edged	1 75 @	—	Rape	1½@	2
do choice	1 72½@	—	Ky. Blue Grass	14 @	18
do fair to good	1 67½ @	—	2d quality	11 @	13
Shipping choice	1 70 @	—	Sweet V. Grass	75 @	—
do good	1 65 @	—	Orchard	25 @	25
do fair	1 60 @	—	Red Top	15 @	—
HIDES.			Hungarian	8 @	10
Dry	— @	12	Lawn	30 @	40
Wet salted	8 @	9½	Mesquit	10 @	13
HONEY, ETC.			Timothy	5½@	—
Beeswax, lb	20 @	22	TALLOW		
Honey in comb, fancy	13 @	14½	Crude, lb	2 @	
Honey in comb,	9 @	12	Refined	6 @	
Extracted, light	4 @	4½	WOOL, ETC.		
do dark	3½@	4½	SPRING—1886		
HOPS.			Humboldt and Mendocino	18 @	21
Oregon	17½@	20	Sact'o valley	14 @	17
California	15 @	20	Free Mountain	17 @	18
ONIONS.			N'hern defective	— @	—
Pickling	— @	—	S Joaquin valley	10 @	13
Silverskin	2 00 @	5 00	do mountain	13 @	15
NUTS—JOBBING.			Cava'r & F'to'll	13 @	15
Walnuts, Cal., lb	12½@	13½	Oregon Eastern	15 @	20
do Chile	— @	—	do valley	18 @	22
Almonds, hd shl	5 @	7	Southern Coast	9 @	10
Soft shell	15 @	19			

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

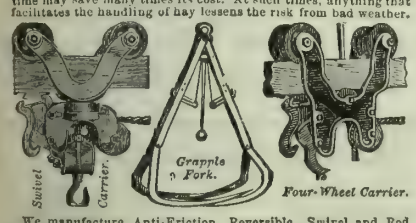
WEDNESDAY, April 13, 1887

Apples, bx com..	1 00	@ 1 50	do evaporated	16 @	18
do choice.....	1 75	@ 2 25	Peaches.....	8 @	10
Bananas, bunch.	2 00	@ 3 25	do pared ..	18 @	20
Blackberries, ch.	—	@ —	do evaporated.	20 @	30
Canteloupes, cr.	—	@ —	Pears, sliced....	5 @	6
Cherries blk.....	—	@ —	do crtd.....	4 @	5
do Royal Ann..	—	@ —	do evaporated	8 @	10
Cherry plums...	—	@ —	Plums, pitted..	9 @	10
Crabapples.....	—	@ —	do unpitted...	3 @	5
Cranberries.....10	00	@12 50	Prunes.....	6 @	10
Currants chest...	—	@ —	do French	10 @	13
Figs, bx.....	—	@ —	Zante Currants	8 @	—
Grapes.....	—	@ —	RAISINS.		
do Rose Peru.	—	@ —	Dehesa Clus, fcy	2 40 @	2 50
do Muscat....	—	@ —	Imperial Cabin-		
do Tokays....	—	@ —	et. fancy....	1 75 @	—
Isabel.....	—	@ —	Crown London		
Wine, Zinfandel	—	@ —	Layers, fcy..	1 50 @	—
do Mission....	—	@ —	do Loose Mus-		
Limes, Mex.....	—	@ —	catels, fancy	1 40 @	—
do Cal. box ...	1 00	@ 2 00	do Loose Mus-		
Lemons, Cal., bx	1 50	@ 2 00	catels.....	1 35 @	—
do Sicily, box.	4 50	@ 6 00	Cal. Valencias..	1 25 @	—
do Australian.	—	@ —	do Layers ...	1 25 @	—
Nectarines box.	—	@ —	do Sultanas...	1 25 @	—
Oranges, Com bx	1 25	@ 1 75	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.		
do Cho'ce.....	2 00	@ 3 00	VEGETABLES.		
do Navels.....	3 50	@ 5 00	Artichokes. doz.	— @	—
do Panama...	—	@ —	Asparagus ₱ bx.	75 @ 1	25
Peaches, bx.....	—	@ —	do cultivated.	— @	—
do bask	—	@ —	Okra, dry, lb...	15 @	20
Crawfords, bx	—	@ —	do green box..	— @	—
do bskt..	—	@ —	Parsnips, ctl....	1 50 @	—
do choice	—	@ —	Peppers, dry lb..	10 @	—
Pears bx	—	@ —	do green, lb..	20 @	25
do choice.....	—	@ —	Pumpkins pr ton	— @	—
do Bartlett, bx	—	@ —	Squash, Marrow		
Persimmons,			fat, too.....	10 00 @12	00
Jap, bx.....	—	@ —	do Summer bx	— @	—
Pineapples, doz.	4 00	@ 5 00	String beans lb..	15 @	20
Pomegranates. b	—	@ —	Tomatoes box..	75 @ 1	50
Prunes bx.....	—	@ —	Turnips ctl.....	25 @	60
Quinces bx.....	—	@ —	Beets, sk.....	75 @	—
Raspberries ch..	—	@ —	Cabbage, 100 lbs.	1 30 @ 1	55
Strawberries dr.	1 00	@ 2 00	Carrots, sk.....	35 @	—
Watermelons 100	—	@ —	Cauliflower. doz.	— @	—
DRIED FRUIT			Eggplant, ₱ lb..	15 @	25
Apples, sliced, lb	5	@ 7	Garlic, lb	2 @	
do evaporated.	11	@ 12½	Green Corn,		
do quartered..	4	@ 5	small box...	— @	—
Apricots.....	13	@ 15	do large box..	— @	—
do evaporated	20	@ 25	Green Peas, lb..	1½ @	2½
Blackberries....	9	@ 11	Sweet Peas.....	3 @	4
Ottron.....	28	@ 30	Lettuce, doz ...	10 @	—
Dates.....	9	@ 10	Lima Beans lb..	— @	—
Figs, pressed....	5	@ 6	Mushrooms, lb..	12½ @	20
Figs, loose.....	3	@ 4	Rhubarb lb ...	5 @	7
Nectarines.....	8	@ 10			

USE THE **STANDARD HAYING TOOLS**

FOR STACKING OUT IN FIELDS OR MOWING AWAY IN BARNS

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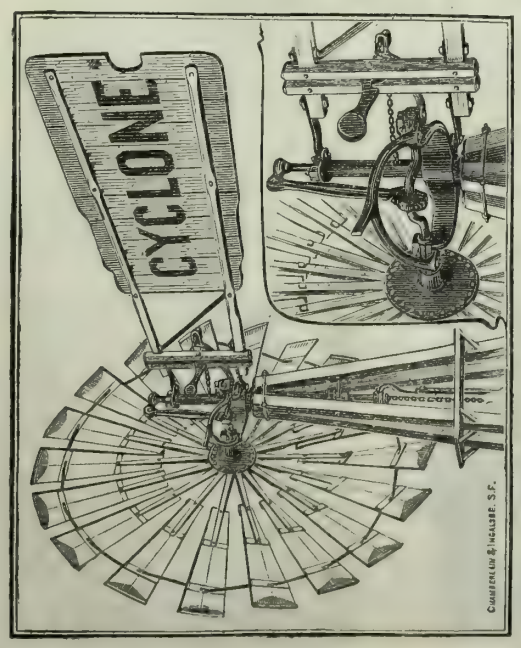
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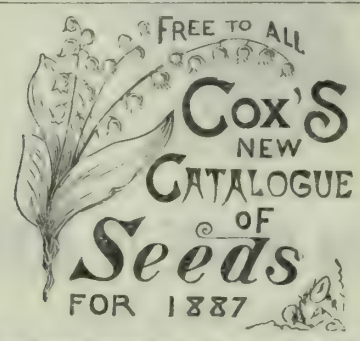
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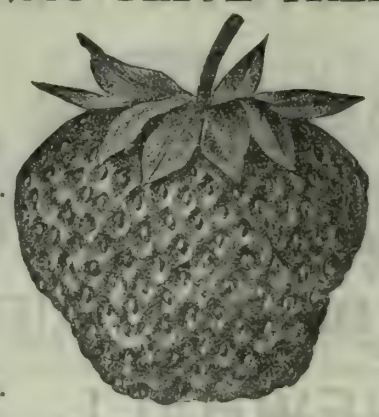
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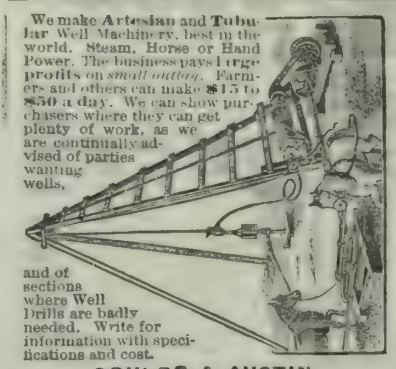
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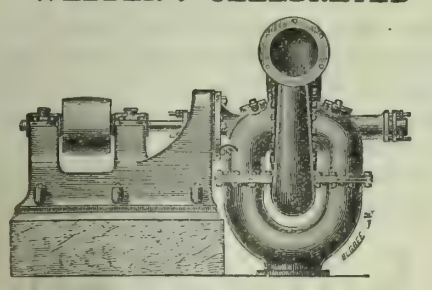
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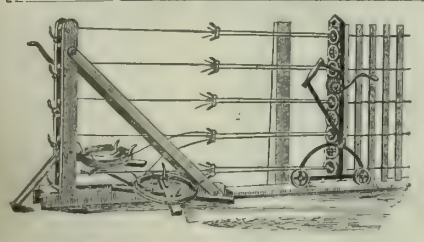
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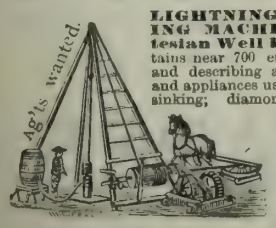
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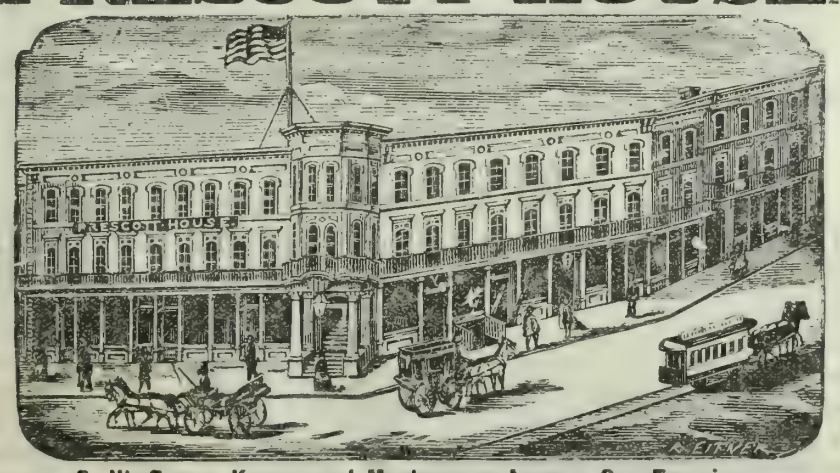
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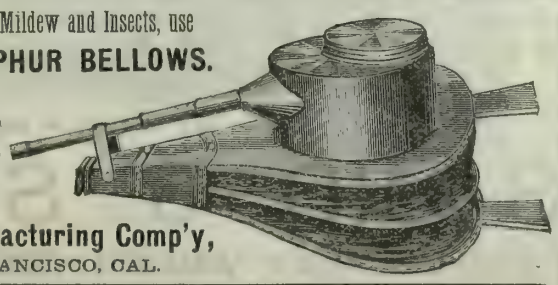
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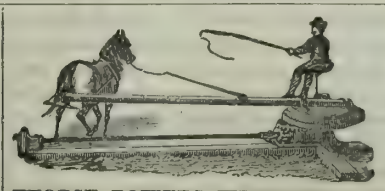
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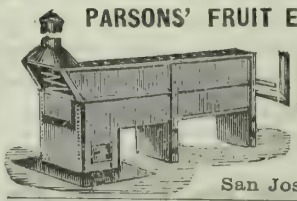
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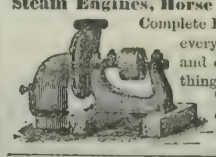
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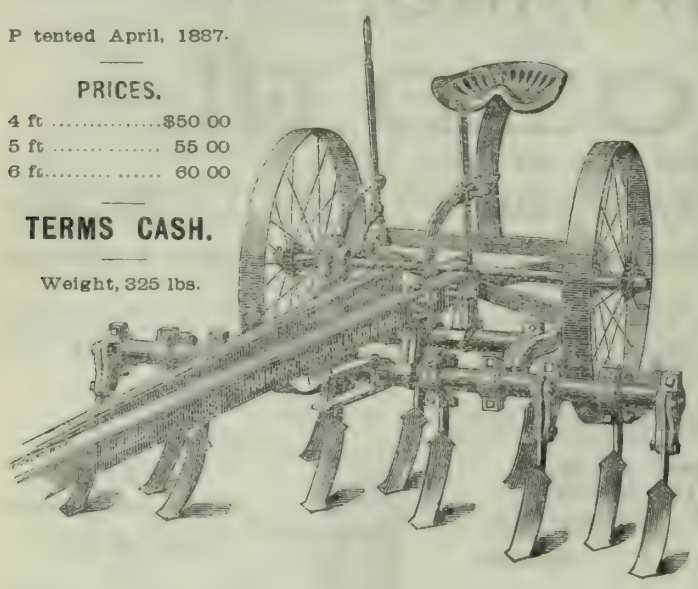
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PRICES.

4 ft $50 00
5 ft 55 00
6 ft..... 60 00

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Weight, 325 lbs.

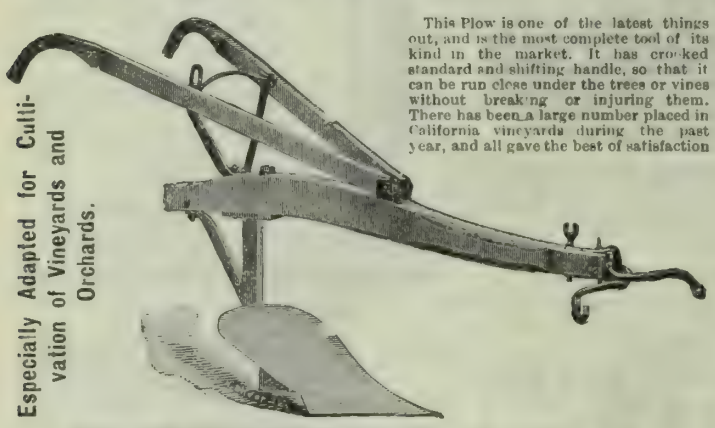


Don't Waste Your Time

By simply glancing at this machine, but read the following carefully, then order a SEE SAW CULTIVATOR, and you will never regret your purchase. It has points of excellence possessed by no other Cultivator manufactured, here or elsewhere. It is entirely a new inception, and has been the object of our special care and attention for many months, and we now KNOW we have the best Cultivator on earth.

1. It is all iron and steel. No wood used except in pole.
2. All the shovels are in front of wheels, so that all the work is done in full view of driver.
3. The gas-pipe beams are rigidly joined and pivoted to sulky frame and working easily on its bearings, thus giving great adjustability.
4. You may SEE SAW to your heart's content. The weight of driver exactly balances the weight of gas pipes and shovels, so that a pound pressure on lever in front of driver's seat will raise or lower the shovels, so that depth of cut is regulated with the greatest ease.
5. In all Cultivators with shovels behind the wheels the first movement of team away from the vine or tree causes the Cultivator to swerve toward instead of away from the vine or tree you desire to avoid, frequently resulting in serious loss. In the SEE SAW the motion away from the vine is positive, and the whole frame immediately moves in direction desired.
6. The axles are pivoted in center of sulky frame, and by use of lever, at right of driver's seat, the direction of the Cultivator may be instantly changed to right or left without changing the direction of team or touching the reins.
7. It is the only Cultivator that is a perfect SIDE-HILL machine. With all others you are compelled to work your team up hill continually, and cause your cultivating to be done in a slanting, awkward fashion, distressing to driver and team. We have done away with all this; simply use the lever to the right of driver's seat and throw the wheels toward the hillside. This gives the machine a tendency "up hill," but does not alter in the slightest the direction of the sulky frame or pole, so your team can travel along without the annoyance consequent upon side draft, and the hauling and dragging on the reins by the driver.
8. The machine is simply PERFECT. It is expensively made and great care has been used in its manufacture.

New Bradley Vineyard Plow.



Especially Adapted for Cultivation of Vineyards and Orchards.

This Plow is one of the latest things out, and is the most complete tool of its kind in the market. It has crooked standard and shifting handle, so that it can be run close under the trees or vines without breaking or injuring them. There has been a large number placed in California vineyards during the past year, and all gave the best of satisfaction

Price, with Wooden Whiffletree, $9. Extra Share, $3.

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Of All Kinds.

HOLLOW-AXLE WAGONS AND BUGGIES AND VEHICLES

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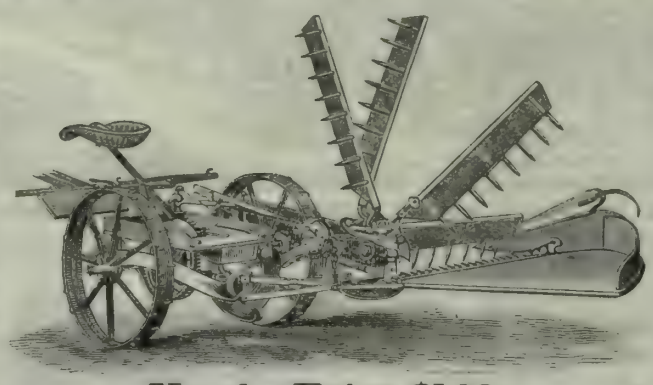
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PEERLESS No. 4 MOWER AND SELF-RAKE.

INCOMPARABLE AND MONARCH OF ALL.

Wherever this machine has been used, it is regarded with greater favor than any other of its class, owing to its UNSURPASSABLE WORKING QUALITIES, as uniformly exhibited in the field, both as a mower and reaper. Its career in this respect has been the MOST REMARKABLE—without a precedent in the history of combined machines. We note a few of its many superior features: It is exceedingly light in draft; does good reeling and raking; excels in delivering a nicely-formed sheaf; has a simple contrivance for stopping motion of rakes, and an excellent device for raising and lowering outer end of bar and platform.



No. 4. Price $140.

The machine is strongly and durably built, well balanced, and will cut grass and harvest grain in the MOST UNEXCEPTIONABLE manner.

It can be readily converted from reaper to mower, or the reverse, which is a very desirable feature, making it a cheap and convenient machine for a small farm, as it will answer the double purpose of mowing and reaping; and in reaping it will rake the grain to the side, out of the way of the team, so that there is no necessity of binding it as fast as cut. The same bar is used for cutting both grass and grain, and its width of cut in grass is 4 feet 9 inches; in grain, 5 feet.

PEERLESS NO. 6 SINGLE REAPER.

PRE-EMINENT AMONG SINGLE REAPERS.

Absolute perfection may never be achieved, yet it may be said that our No. 6 Single Reaper, in its present form, reaches that point as nearly as is possible. It would be a difficult matter to show wherein it could be made better or more serviceable than it now is. Its SUPERIORITY over other single reapers is distinctly noticeable in the MANY EXCELLENT FEATURES entering into its construction. Attention is directed to a few of the most prominent of these:

It is light in weight, yet strength, durability and utility have not been sacrificed to attain this end, as has been the case of a number of other single reapers.

The equipoise of the machine is all that can be desired. Its tipping arrangement is the most effective in use, and is conveniently operated. The outer and inner end of the platform and bar can be easily and quickly raised and lowered. It has a strong angle iron bar, which is superior to the wood bar found on other single reapers. The seat is located where the driver is entirely out of danger. It will harvest down and tangled grain as well as standing, in the MOST SUCCESSFUL MANNER, and deliver the NICEST sheaf of any Self-Rake made. The machine is painted in the most attractive colors. The width of cut of this machine is 5 feet 6 inches.

Price $115.

We still have in Stock a few CHAMPION MOWERS which we will offer at Greatly Reduced Prices.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 17.] SAN FRANCISCO, SATURDAY, APRIL 23, 1887. $3 a Year, in Advance. Single Copies, 10 Cts.

In the Canyon of the Rio Grande.

Readers who lately passed over the "Sunset Route" may recognize in the engravings on this page scenes which delighted them en route. It may be that the water fowl and the grand old buck did not appear; such features of a landscape do not generally materialize when most wanted, and the reader must take the artist's testimony as to their existence. There is enough, however, in the engraving to show that the scenery in the canyon of the Rio Grande is worth a journey to see. The mouth of this canyon is in Texas, about 750 miles westward from New Orleans. Major Ben. Truman, in his book, entitled "From the Crescent City to the Golden Gate," speaks very highly of the beauty of the river, which is the geographical boundary between the United States and Mexico. At one point he speaks of the canyon being bounded with vertical lime-stone walls on each side, from 250 to 300 feet in hight, and the tourist is treated to a scenic and engineering paradox of traveling a long distance up the river on a down grade. Two miles further west, the train enters a tunnel 1426 feet in length and 75 feet above the water line, emerging from which it moves along for several miles upon a wonderful piece of shelving cut out of the great limestone bluff overhanging the river and about 60 feet above it. This is pronounced by Major Truman one of the grandest pieces of railroad travel in the world, and is very beautiful and very impressive for quite a distance. The engravings give some idea of the startling and beautiful features of the railway conctruction and the scenery.



SCENES IN THE GRAND CANYON OF THE RIO GRANDE.

State Board of Horticulture.—The Board held its formal meeting in Los Angeles on April 16, following the Riverside Convention. Officers were elected for the following year as follows: President, Ellwood Cooper, of Santa Barbara. Vice-president, N. R. Peck, of Penryn, Placer county. Secretary, B. M. Le Long, of Los Angeles. Treasurer, Gen. M. G. Vallejo, of Sonoma. Auditor, Dr. E. Kimball, of Haywards. Inspector of Fruit Pests, W. G. Klee, of Berkeley. Executive Committee—Ellwood Cooper, A. Block and Dr. Kimball. The president was authorized to have published 5000 or more copies of a bulletin giving insect remedies reported to the Riverside Convention. The Inspector of Fruit Pests was authorized to make experiments in insect destruction, under direction of Executive Committee. Santa Rosa was selected as the place for holding the next State Convention, in November, 1887, exact date to be fixed hereafter. The thanks of the board were returned to Secretary Chester for efficient services rendered during the sickness of the regular secretary. Resolutions eulogistic of the late secretary, A. H. Webb, were then passed and the board adjourned.

Anti-Debris Association.—A special meeting was held in Yuba City April 13. G. W. Hutchins, of Yuba, moved that an Advisory Board, or Committee of Twenty (ten from Yuba and ten from Sutter) be appointed by the directors of the association, whose duty it should be to confer with the directors and the Executive Committee from time to time as they may deem proper and necessary. The proposition was carried unanimously. C. P. Berry, P. C. Slattery, Dr. D. P. Durst, H. C. Jones and A. H. Wilber were appointed a committee to select the names of 35 gentlemen, in connection with their own, making 40, from which to select the ten from each county. George Ohleyer read a long list of the names of the mines that have violated the decrees of the courts since the beginning of the anti-debris litigation. There were about 150 in all.

Oleofacture Prohibited.—Both houses of the Delaware Legislature have passed a bill prohibiting absolutely the manufacture and sale of all kinds of imitation and adulterated butter.

Important Address on Insects.—We give a good deal of space in this issue to a full report of the address delivered by Prof. C. V. Riley, U. S. Entomologist, at the Horticultural Convention at Riverside. The manuscript has been carefully revised by the author especially for publication in the Rural, and the address will be read with close interest by the many who are struggling with insect suppression. Other important features of the Riverside Convention will be noted later.

Practical Girls.—The Martinez *Gazette* speaks of the daughters of two farmers in that neighborhood as able to hitch up a horse, handle a plow, and do almost anything in the line of farm work. Are not such accomplishments more to be desired than those of city belles?

Land-Grabbers and Frauds.

Now that alien land monopoly and landlordism has been given a black eye by Congress and the Illinois Legislature, it is in order to look more closely into the land-grabbing frauds.

That the Government has been systematically swindled out of the public domain through the ingenious tricks and manipulations of landsharps and land-rings, is a matter of common fame. Their operations in this State were detected by Mr. Wilson T. Smith, Special Agent of the Land Department, during Mr. Arthur's administration, and under the auspices of Mr. Lamar, Secretary of the Interior, the special agents of the department have been silently but vigorously on the scent ever since. The culmination has come, and there is thunder all around the horizon. There is pale consternation in the camp of the grabbers. Their exploits as revealed by the vigorous report of the United States Grand Jury in this city and Portland, Or., is merely a part of a gigantic land-swindling scheme extending over eight or ten States and the Territories.

These frauds are usually committed by hiring men to go upon the land and acquire a colorable title. The Desert Land Act only allows a man to take up 640 acres in his own name, but it is easy to whip the devil round the stump, by employing some one to go and make desert land claims, and as soon as the proof is presented and recognized in the local Land Office, convey the title. It is true that men who engage in such a conspiracy have to commit perjury, but scruples of conscience seem to weigh very little when one is robbing the Government. Congressman L. E. Payson, of Illinois, in a notable speech in the House in February, said:

As to the land which requires actual settlement as is required by the Homestead and Preemption laws, here is a favorite way of doing it. The law requires there shall be proof of a house being erected, and that the man making the proof is the actual occupant of the land and resides in the house. They will build a house and put it on wheels. The man hired by the party desiring to make the entry goes in and sleeps in the house one night, then goes to the nearest land office and swears he lived in the house situated on the land 9x12 feet, with a second story, and all that sort of thing, giving a minute description of what for that country would be a pretty excellent house. Next morning a pair of oxen are attached to the house and haul it on to the neighboring piece of land, and the same process is gone through. My colleague sitting near me (Mr. Plumb) tells me a man in his town was one of a party of capitalists who, by just such methods, secured in one county in Nebraska 27,000 acres of the public lands, and the records in the department show it.

As samples of the gigantic frauds that have been going on, he called attention to one company that within a few years had procured over 30 miles of continuous water front on the North Platte river, and sufficient land behind this to control hundreds of thousands of acres, and another syndicate that by hook and by crook had got possession of an area larger than the State of Rhode Island or Delaware. But there is no need to go beyond the limits of this State for land piracy. Let us hope the Government may now be able to break up the whole rookery.

Irrigation in Inyo.—A large number of citizens of Inyo county have petitioned, under the Wright law, for an irrigation district to take water from Owen's river and its tributaries.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions

Ventura County Notes.

EDITORS PRESS:—A very acceptable rain of nearly one and a half inches, precipitated yesterday, has insured good crops in this county and at the same time infused new courage in the hearts of farmers, merchants and the real estate dealers. Grain of all kinds was looking backward and pasturage exceedingly short, but with these generous showers and the warm weather, vegetation of all kinds will grow rapidly. Much of our soil is of a deep, sandy, alluvial character, and retains moisture for a long time. We are almost sure to have showers later. Rainfall to date nearly 14 inches.

As a consequence of short pasturage, stock, both beef and mutton, is in poor condition, comparatively, though the quality of meat in the markets is improving and will continue to from this time on. There are always fat hogs for sale and numbers of them. Thousands are raised in this county, pastured on alfalfa or wild grasses and fattened on corn. Large numbers of these fat swine are, every month, shipped to San Francisco.

Ventura county can safely be counted on for an abundant harvest of grain, fruit, nuts, flax, corn and beans this season. Orchards are in splendid order, the trees full of blossoms or early fruit. Increased attention is being paid to horticulture, as it has been demonstrated that this branch of farming is very profitable here, and will be more so now we have railroad facilities for transporting our products quickly to market. Nowhere else in the State are there to be found finer apricot orchards. The trees bear large crops of very fine fruit that always commands good prices. Several large fruit-driers have been built within the last few years and one or more will be erected in the fertile Santa Clara valley this season. Nut trees bear excellent crops and we predict increased attention will be paid to this crop in the future. Prunes are not grown to any great extent, though we are informed that this fruit does well here. In fact, it would be difficult to find a nut or fruit tree that would not thrive here.

Apiarists are busy caring for their swarms of busy bees. The production of honey in this county, annually, is very large, and the labor and skill necessary to carry on the business is well rewarded. Thousands of swarms are located here and there in the hills in various portions of the county, bee food being found in liberal quantities most everywhere. Previous to last season the bees, in many places, destroyed a large amount of ripe fruit. So much damage did they do that orchardists threatened to make use of harsh measures if the apiarists did not remove their hives to some distance. In consequence, many hives were taken to well-located spots in the hills.

Land is appreciating here, and will continue to, owing, in great measure, to the building of the Newhall extension of the S. P. R. R. There are large grants, containing scores of thousands of acres, yet undivided, whereon very many families could, and will, when once they are divided, find pleasant homes. The soil everywhere is rich and productive and oftentimes of immense depth.

The mines in Lexington, in this county, are proving to be quite rich, and many seekers for wealth are flocking thither. The oil wells are yielding large returns, and new wells are being developed. This is one of the prominent industries of this county, a large amount of capital being invested in it and employment given to many men.

In favored localities irrigation ditches extend for miles through farms, water being taken from the numerous streams that rise in our mountains. By means of this water large crops, and several of them, can be raised yearly, though there are comparatively few acres that can be thus irrigated. Of course, farms adjacent to these ditches command higher figures than those differently situated.

We note an improvement in stock of all kinds. There is a desire to raise better breeds of cattle, horses and hogs. Norman horses, Holstein cattle and Berkshire hogs have many admirers and seem to be favorites. R.

Santa Paula.

THE FIELD.

University Distribution of Seeds, Plants, etc.

University Experiment Station Bulletin, No. 68.

The books of record of the distribution of seeds, plants, cuttings and scions, for the year 1887 were closed on April 1st. A review of the summary prepared by the clerk in charge of the distribution, reveals some facts which may be of general interest as showing the extent of this branch of the University's work, and the popular interest taken in it.

Bulletins 61 and 62, describing the material offered for trial, were issued the first week in January. The announcement was given wide circulation by the newspapers of the State, and it soon became apparent that the demand for some kinds of seeds and plants was far greater than the stock which we had been able to propagate. This fact shows the wide interest taken in local experimental work in this State, and encourages us to efforts for larger supplies for future offerings. It is, of course, not easy to secure always enough material, because it is designed to distribute only novelties which are not yet in the hands of the nurserymen and seedsmen. For example, two varieties of olives obtained through Mr. Pohndorff's importation were multiplied as far as the wood available for small cuttings would go, and yet the stock secured was not enough to fill half the orders which came in for them. It was much the same with the new varieties of guavas.

In the seed distribution most interest pertains to grasses and forage plants. The improvement of our pastures and meadows is one of the most important problems in California agriculture. The substitution of perennial grasses for the annuals which are running out so fast under close pasturing, the discovery of suitable forage plants for situations where alfalfa does not yield satisfactory results, are matters to which the people generally are wide awake, and our correspondence shows that the University distribution has already placed in the hands of the growers several plants which will serve an important purpose in ministering to these needs.

The tabulated statement below shows that the orders for forage plant seed was several times greater than for other kinds of seed, and though a large distribution was made, there was over 20 per cent of the orders unfilled because of lack of material. In all cases orders are entered according to the dates, and those first received are first filled.

The offering of seeds and plants by the College of Agriculture involves a plainly expressed obligation, which is assumed by the applicant, that the results of the experiment will be communicated to us, in order that a wide area of local experimentation may be in our view, as we endeavor to decide upon the adaptation of any industrial growth to the conditions in this State. We are glad to acknowledge that this obligation is being well discharged by a large proportion of those to whom we have sent materials for experiment. Our report for 1886, which was transmitted to the State printer last December, but which, unfortunately, has not yet been published, will show how active an interest there is in experimentation, how gratifying a disposition to communicate results, and how important are the facts that have been disclosed by local experiments. Of course, as the distribution widens and as larger numbers of voluntary observers are enlisted, still more interesting and important results may be expected.

Summary of Distribution of 1887.

KIND OF PLANT OR SEED.		AMT. DISTRIBUTED.
Hessian-Fly proof Wheats:		
Volo	(lbs.)	20
Missoyen	"	21
Atlanti	"	22
Textiles:		
Ramie	(plants)	270
Esparto Grass	(plants)	70
New Zealand Flax—*Phormium tenax.*	"	380
Flax:		
White Flowering from France.	(lbs.)	15
Royal from Germany	"	14
Russian from Pskoff	"	14
Yellow Seeded	"	15
Grasses and Forage Plants:		
Schrader's Brome—*Bromus unioloides*	(pkgs.)	142
Millet Grass—*Milium multiflorum*	"	63
Japan Clover—*Lespedeza striata*	"	86
Trees and Plants:		
Kikar or Gum Arabic—*Acacia Arabica*	(trees)	205
Black Wattle—*Acacia decurrens*	"	185
Back Wattle—Packages of Seed	"	42
Olives—Manzanillo and Nevadillo	"	224
Guavas—*Psidium pomiferum Cattleyanum and aromaticum*	"	201
Insect Powder Plants:		
Pyrethrum roseum	(pkgs.)	34
Pyrethrum cinerariæfolium	"	80
Miscellaneous:		
Bamboo—*Arundinaria falcata*	(plants)	78
Quinoa—*Chenopodium quinoa*—Seeds	(pkgs.)	40
Kaffir Corn	"	61
Cuttings and Scions:		
Apricots	(bundles)	175
Apples	"	204
Crab Apples	"	79
Pears	"	220
Plums	"	313
Mulberries	"	193
Vines, Native American	"	82
Vines, Asiatic	"	42
Vines, Huasco Raisin Grape	"	139

As the bundles of cuttings and scions average about ten sticks each, there were about 15,000 sent out in the course of the distribution. The demand for named scions of standard fruits is evidently large and the University orchard is serving a most important use.

In many cases the scions have been ordered for grafting in orchards to identify varieties of which the names have been lost, and in this way an opportunity for local comparison of fruits, grown under precisely the same conditions, is secured. In other cases the scions have been sent for to work over many of the old seedling trees planted in early days when seeds were used in place of young grafted trees which were not then available.

The distribution of New Zealand flax included a lot sent for planting in a large vineyard in Fresno county, where, if the plant thrives, the leaves will be used in tying vines. In the coast valleys it has been shown to grow well, and its use for vine-tying, and for other similar purposes, promises to be large.

The records show that in all, 631 orders were received, and material was sent into nearly all the counties of California. Packages were sent to 197 express and 429 post offices. The total receipts from applicants were $291.70, which was expended as follows: Packing material, etc., $54.13; wages, $90.25; expressage and postage, $85.27; money returned (to those who sent in excess of requirements), $61.99. Total, $291.64. This close balance of receipts and expenditures shows that the charges were well gauged to meet the cost of the act of distribution; and the charge has been of advantage in preventing idle application for what could be had for nothing, and has brought the material into the hands of those who really desired to experiment with it. Of course the expense of propagation of the seeds and plants is borne by the general funds of the College of Agriculture; applicants are only charged the bare cost of packing and transmission.

It may be remarked that this showing indicates the work that has been done in the way of promoting local experimentation in advance of the provision for such effort by the United States, in the Experiment Station law which was passed at the last session. It is expected that when increased funds become available under that law, this work will be proportionally advanced, as it is contemplated that each station shall constitute an additional center of distribution. E. J. WICKSON.

Berkeley, April 15, 1887.

ENTOMOLOGICAL.

An Ounce of Gold for an Ounce of Bugs.

The announcement that Mr. Hatch said at a recent meeting of the State Horticultural Society that he would give an ounce of gold for an ounce of the black ladybug with one red spot on each wing cover, has awakened wide interest. Some weeks ago Mr. S. W. Shafer, of Downieville, Sierra county, wrote as follows:

In the report of the meeting of the Horticultural Society, Mr. Hatch is made to say that he will give an ounce of gold for an ounce of ladybugs. I think I can supply him with bugs. My experience in ladybugs is this: The bugs seem to gather in bunches near running streams to winter, and last spring I gathered perhaps a quart and turned them loose on the ranch. They scattered about, and in a few days only an occasional bug would be seen. About July they became quite plenty and seemed busy among the trees and plants. I saw several with rosebush lice in their jaws, holding them clear of the bush. On strawberry plants they seemed to do most of their hunting under the leaves and at the base of the crowns. I found many clusters of insect eggs torn open in an irregular way, and chinch bugs have almost entirely disappeared. My clover at the second cutting was literally alive with ladybugs. I suppose my bugs were not all of my own breeding, but there were never half so many here before, and my place was never so free from insects injurious to trees and small fruit. My theory is that nature's remedies are best where they are discoverable. I will send you a sample of my bugs when the rain lets up a little.

This letter being forwarded to Mr. Hatch, he replied as follows:

Conditions of the Offer.

Mr. S. W. Shafer—DEAR SIR: Yours to Prof. E. W. Hilgard was received by me last evening. In answer to you will say, I am ready to pay as per my offer for what my offer was made, which was one ounce of gold or its equivalent in money for one ounce of a *certain kind* of ladybug, that is, a *black* ladybug with one red spot on each side—they to reach me alive. If that is the kind you have so plentifully, and you will send to me one ounce of them, I will send to you $20 in money. The common kind of ladybug is quite common here. —A. T. HATCH, *Suisun, Cal.*

The insect to which Mr. Hatch refers is the *Chilocorus*, as illustrated in the RURAL PRESS of July 24, 1886, page 81. They are well distributed over the State, but most people who have orchards probably consider their services worth more than Mr. Hatch's offer. The following paragraph by J. W. Rucker, in the Fresno *Republican*, relates to the same insect:

On the 29th of March of last year I was sitting near a south window writing a few stray thoughts, as is my habit at times, when I noticed for the first time these little spotted beetles, said to be destroyers of the San Jose scale. The gentleman who first brought to my notice their scale-destroying quality said to me afterward that they had disappeared from his orchard after cleaning the trees of scale, and that he should like to know what became of them—whether they died, or where they went to. Last fall, after these bugs had cleaned my trees of scale, they disappeared as they had done from my informant's orchard, but as they are now returning I am anxious to know whether they have come to harvest a second crop of scale or whether they will move on to others who have some of the old crop on hand. I was in hopes that they would not be needed in my orchard this year. I noticed their return a few days since inside a room in which there was a very warm fire. They would fly against the window, and there I caught a number and examining them with a glass, I found that they had the same distinguishing marks of those that were upon my trees last summer and disappeared in the fall. Whether they were hatched in the cracks of an unfinished room, or whether they hibernated during the winter, would be interesting to know. They are now fully grown. Is there some one who can throw light on the matter?

HORTICULTURE.

The Apricot in Southern California.

At the meeting of the Los Angeles County Pomological Society, held in Monrovia, April 7th, J. O. Matthewson, of Duarte, read the following essay on apricot culture:

Ladies and Gentlemen: I am to talk for a very few minutes on growing the apricot. I would say first of all that I am not a very observant man, but that during an experience of 20 years in nursery and orchard I have learned some things worth knowing in that line that may be of use to beginners.

To secure the best success in any direction, we must begin right. To begin right in the vegetable kingdom we must be specially careful in selecting the seeds we plant. I think as horticulturists we very seriously fail here. To plant poor, immature, unhealthy and diseased seed and then expect the best results is only to insure disappointment. We see this fact markedly illustrated in the history of citrus culture in the past and I think nearly equally so in deciduous trees. Now, in growing the apricot, we want first of all good, healthy, well-developed peach or apricot pits from healthy stock not affected with the gum or black-knot or blackwood diseases. If pits are planted from such trees they will invariably develop the same disease in the near future and make an ugly gap in your orchard. Nurserymen are not careful enough in their selections in this respect—indeed, where a large nursery is carried on, it is a very difficult matter to do so, and yet it is necessary to insure healthy stock. I regard the peach as the best stock for the apricot in certain places and for certain reasons. The trees bear earlier, they require less pruning, and enjoy freedom from gophers. They ought, however, to be planted where artificial irrigation is practiced, and not where the soil is naturally wet or damp.

For long life, none so good as the apricot root. It is a more vigorous feeder, does not bear so early, requires more labor to keep the tree in proper shape, is subject to the depredations of gophers, and also more liable to gum disease. So I take it, as we are a people rather impatient of results, I would advise the use of the peach stock for our apricot orchards.

This stock, at the age of eight or nine months, will be budded, close to the ground, closer the better, and here again we require great care in the selection of our buds, not only to see that they are well developed but also taken from trees free from disease.

In growing the bud for the first year it ought to be treated so as to throw the strength of the root forces into one main stalk. This can be done by early attention. I prefer one-year-old trees for planting in the orchard. Before the trees are taken from the nursery rows a sharp pruning-knife ought to be used to trim this yearling tree up to a switch, not leaving a single branch on the main stem, and cutting off the top also at the hight of four feet from the ground. Then take up the tree carefully, place it in the orchard at about the same depth as it stood in the nursery rows; if any deeper, not more than two inches—carefully spreading out the upper and lower roots horizontally, the tips slightly dipping. In taking all this care, we are to remember we are sure of ample reward in the future. It always pays to do things right.

In growing the future tree in the orchard don't be too hasty in rubbing off the superfluous sprouts. Let the tree get fairly started to grow. Foliage is absolutely necessary to root growth.

Then when the young sprouts are four to five inches long, go over all the trees. Cut or rub them off to within two inches of the top. In two months after, take a sharp pruning knife and cut off every sprout except three or four main branches at the top, and let them also be selected, so that they will be two or three inches apart—to save future splitting.

In the winter cut away two-thirds of these three or four branches—we are to remember we are training this tree for long years of usefulness in fruit-bearing, and we must begin right, as we desire a tree that will give us the least possible trouble in the future.

In this way a tree will bear its own load of fruit without propping up, and will also economize its root forces for future fruit-bearing. Treat your trees in this way for the first three years, and, other things implied, your orchard ought and will be a credit to you.

After the tree has been in position for three years in good soil, an average of 10 or 12 inches of winter rains, with good cultivation, is all that is needed for the future well-being of the tree.

In my orchard I have always kept my trees dry in the fall so far as I was able. I wanted the leaves to drop early, so that the trees might have a long time to rest and be ready to start out at the first approach of spring. I have given but little cultivation in the spring after the fruit is formed, rather keeping the weeds

under with the hoe. My object in this is to dry out the soil early and keep it hard around the tree, so that all surface roots would be retarded in their growth and tend to early ripening of the fruit. In this way I have secured ripe fruit in quantity about ten days earlier than any other part of the county I know of for the last five years. While pruning largely determines quantity, controlling the moisture at proper times around the tree largely determines earliness.

I have adopted the methods of pruning that have given me the largest returns, *i. e.*, cutting back to within 6 to 12 inches immediately after the crop is off. I also prune the Royal apricot in winter, as they have a tendency with me to overbear. If they require water at all, immediately after the summer pruning, at the end of July, is the proper time. The varieties I have grown are the Royal, Early Golden and Large Early. The Large Early is a very shy bearer and is not worth cultivating in our section. The Royal is better than the Golden. It will hang three days on the trees after it is ripe without dropping; the Early Golden will hardly do that, though it bears well.

My returns have not been large, but satisfactory, and all the more so because I've never had a total failure. A heavy year and a light one is the rule, but never a failure. From 416 trees, ranging in age from five to eight years old, I have averaged for the four years past about $800 net each year, and I am sure they have paid me better than any other trees on my place, considering the labor bestowed, except, perhaps, the lemon.

So far as diseases are concerned, I am inclined to think that the gum is often started by imprudent watering, starting an undue flow of sap that cannot find quick enough utilization in top surfaces, must find an escape some way, and comes out as a gum, especially in the crotches, where it is specially dangerous in heavy-bearing trees. To obviate this, I think less cultivation until the crop is off would have a tendency to help in this direction. I think it is true that apricots standing in comparatively damp ground are more liable to this disease than when planted in dry soil and needing artificial irrigation. I have been troubled very little with it. I cannot say as much in reference to black-knot. I think the only way out of this difficulty I can see is to be careful of our beginnings and never to deluge the trees with water.

And now I want to say that for our section here the apricot is peculiarly at home. By proper attention to our work we can grow large and handsome fruit. One year I had some, five of which weighed two pounds. The trees require but little care after being fairly started. The fruit is always in demand, coming from the 25th of May to the end of July.

The Stable.

Tulare Horse-Breeders' Views.

Editors Press:—John Potter, a pioneer of '49, farming in the neighborhood of Poplar, near Tule river, has been, for years, paying particular attention to the breeding of horses fit for various purroses on California ranches. He says the Black Hawk is rough, durable and fine for the saddle, but too light for draft. The Patchin is rather small, low and heavy set, but is a good roadster, a good trotter, and fine traveler. The studs are generally considered of bad disposition.

He has several horses of Morgan mixed with Goldfinder, which average in weight some 1200 pounds; are remarkably well proportioned, clean limbed and good travelers. The Peacock is another variety which he highly esteems, weighs from 1200 to 1400 pounds, is clean limbed, a good roadster or saddle horse, and is suitable for all purposes on the farm. Similar to Whip or Diomede.

On Mr. Potter's farm we were pointed out a light bay horse of about 1200 pounds, whose dam was out of a Peacock mare sired by an Orphan Boy, and whose sire was by English Coach and Black Hawk. This animal is represented as a good traveler, and as draft horse one of the very best of pullers. Also another, of much the same description and qualities, out of a Peacock mare, and sired by English Coach and Black Hawk. Mr. P. thinks 1200 pounds is as heavy as needed for general purposes. He doesn't wish to include in his horse pedigrees any of either Clydesdale, Norman or Percheron stocks.

T. J. Dale, 11 miles east of Visalia on the Kaweah river, who seems well informed and has long noted the best qualities in various breeds either reared in our country or introduced, recommends the breeding of large mares to ordinary sized horses.

A few years ago the Morgan and Black Hawk were regarded with high favor. They were sought after as furnishing the only reliable trotting strains in the country. Breeders of the present day want only thoroughbreds, such as are descended from the Arabian or English thoroughbreds. For draft horses, preference is shown for half-bred Norman or Clydesdale mixed with good trotters. On the farm, horses of 1200 or 1300 pounds are the best for general purposes. For best saddle horses, half thoroughbred and half mustang are preferred. In the matter of preference much depends upon taste and culture, and of these there is great variety.

Mr. Dale has on his premises the celebrated stallion Hubbard, of chestnut color, foaled in 1869, bred by R. A. Alexander, Woodburn Steed Farm, Woodford county, Ky., sired by Planet, 1st dam Minnie Mansfield by imported Glencoe, and having a long pedigree of best blood, running back through many first-class dams of most honorable history to Old Vintner mare of the 16th generation. He is full brother to Katie Pease, of famous turf record.

Hubbard in his day won many performances well worthy of note, competing with some of the most noted racers in New Jersey, Maryland and New York. Among these we will specially mention only two or three. October, 1872, at Baltimore, Dixie stakes, for three years old, 90 nominations on a dash of two miles, 110 pounds on colts, 107 pounds on fillies, Hubbard won, beating some colts that afterward became most famous, such as Joe Daniels, True Blue, Wheatley, Woodbine, Mate and others; time, 3:36½; value of stakes, $13,800.

At Saratoga, New York, August 2d, in a well-contested dash of three miles, he won, beating several noted horses, making time 5:34. At the same place, seven days later, he won in a hotly contested dash of 2¾ miles, beating Boss Tweed and Katie Pease; time, 4:58¾, the fastest on record.

The running of Katie Pease is reported to have been of the same sterling character, having made two miles in 3:32½; and in all distances, from a half mile to heats of four miles, she made a record which, according to the time test, is unequaled by any mare of the past or present.

Hubbard, at the age of 18, is now in honorable retirement, having the liberty of Mr. Dale's best stables and grounds. McD.

Tulare Co.

The Dairy.

Santa Cruz Dairies.

The *Sentinel* of last week has interesting descriptions of two dairies near Santa Cruz from which we take the salient points:

Wilder's Dairy.

About three miles from the city, in one of the many canyons that cross the coast road, is one of the most noteworthy and extensive dairy ranches on the Pacific Coast, the property of D. D. Wilder. On this ranch are employed 16 men who twice a day milk nearly 300 cows. Each man has certain cows to strip of the lacteal fluid, some to the number of 25. As soon as the pail is well filled the milker goes to a strainer close by and pours in the milk, which runs through a tin pipe and empties into a tank of 200 gallons capacity located in the large milk-room, wherein is a De Laval cream separator of wonderful power. The cream is separated from the milk and pushed to and out of a tube projecting from a stationary tin covering over the revolving vessel, thence emptying into a large can, while the creamless milk passes off, empties into a trough and is carried through an underground pipe to the pig-pen, a distance of 200 yards. This separator has a capacity of working 120 gallons per hour, and a six-horse power engine is used in running it.

Mr. Wilder speaks highly of the merits of the separator, and says that with it, in a period of nine months, last year, he turned out 50,419 pounds of butter, while from Oct. 1, 1884, to Oct. 1, 1885, a period of 12 months, by the old process, he turned out only 43,984 pounds. At present he makes 140 pounds of butter per day, all of which finds a ready market in San Francisco and Santa Cruz. In a clean and capacious room, adjoining the milk-room, is a large churn which is turned by steam, and it is said as high as 300 pounds of butter have been churned at one time. With the use of an ice-chest to draw the animal heat from the milk, and by the new process, butter can be made in half an hour after the milk leaves the cow. All the appointments about this dairy are perfect. Of the 2330 acres of land owned by Mr. Wilder, 80 are in cereals and 80 in hay, and a number of acres are in pumpkins and beets, while the greater portion is pasturage land. Mr. Wilder is yearly improving his stock by working in the Durham breed, and in time will make his dairy second to none in the United States.

Laird's Dairy.

About 12 miles from Santa Cruz, along the coast, is the 2200-acre dairy ranch, the property of Geo. P. Laird, a prominent citizen of this city. For a distance of two miles along the southern border of this ranch old ocean constantly plays upon a gently sloping beach, while close by in a sheltered cove, protected from the coast winds, are the barns connected with the dairy and a handsome residence. Surrounding these buildings is a level piece of excellent farming land, which gradually rises by a succession of hills and tablelands to an elevation of from 1000 to 1200 feet.

Some 500 or 600 acres of the hill-land is said by experts to be well adapted to the growing of the grapevine and fruits of any variety, while the lower land is excellent for grazing and farming, 200 acres of which have yielded as high as 110 bushels of oats to the acre. Over 100 acres are in grain at the present time, that will be cut while green and cured for hay. The yield will be from 250 to 300 tons. About 30 acres of land in the immediate vicinity of the buildings are utilized in raising vegetables, and, upon the land adjacent the streams, corn, squashes and beets grow fast and in abundance. As high as 60 tons of beets to the acre were gathered during last season. An important item in dairying is the large growth of native bunch grass that is found on this ranch, which grass greatly enriches the milk.

The location of the dairy and the cool weather that generally prevails in that neighborhood make it a desirable place for the manufacturing of butter and cheese. The highlands are warm and sunny most of the year, and free from fogs. The San Vicente creek flows the entire length of the southern portion of the farm, a distance of 2½ miles. This stream is well stocked with fine mountain trout, and during the spawning season large numbers of salmon run up this stream. Upon the northern limits of the ranch flows the Agua Puerca, or muddy water creek. Besides these two creeks there are numerous springs at different points, which afford pure and refreshing drink to some 300 head of stock. Of this stock, 200 are first-class dairy cows, that produce the richest cream. The butter and cheese find a ready market in San Francisco, and a large quantity is disposed of to Santa Cruz merchants.

Davenport landing is close by, just north of the dairy, where, in early days, during nine months of each year the farmers in this part of the county shipped large quantities of their produce, but owing to the dilapidated condition of the pier, and the expense attached to keeping it in repair, this point of shipment was abandoned, and now the farmers are obliged to haul their produce to Santa Cruz, some a distance of 20 miles. Let it here be said that if the new owners of the S. P. C. R. R. would extend their Boulder Creek branch to Pescadero and take in these coast ranches, it would open to the commercial world one of the richest dairying and farming districts in the State. Lack of facilities for transportation is the only drawback to this strip of country.

Holstein-Friesians.—There have been a number of very handsome publications made in this country in the interest of improved live-stock, but we doubt if any excels that of Smiths, Powell & Lamb, a copy of which we have just received. This firm is, of course, well known to our readers through their advertisements in the Rural and the many mentions we have made of the doings of their famous cattle in our columns. They are also well known on this coast by the large numbers of choice animals purchased from them by Pacific Coast breeders. The catalogue just issued has 244 pages, is profusely illustrated with excellent engravings, and bristles with statistics gained from the accurate records which are kept in the Lakeside herd. All interested in live-stock, whether breeding Holsteins or not, should have a copy of this publication on their shelves. We presume a copy can be had by writing to Smiths, Powell & Lamb, Syracuse, New York.

The Veterinarian.

The Stockman's Medicine Chest.

The *Breeders' Gazette* gives a list of remedies for the domestic veterinary treatment of farm stock, arranged in alphabetical order, with the doses for different animals:

Aconite Mixture—Tincture aconite, one dram; tincture of lavender, one dram; water, half pint. Action sedative; allays fever and externally relieves irritation. Dose: Horse or ox, one tablespoonful, with half a pint of water; sheep, one teaspoonful, with a quarter of a pint of water.

Alcohol, in the form of whisky or brandy, or strong ale, is useful for cases in which the system requires to be temporarily aroused from a state of depression. Dose: Horse or ox, whisky or brandy, four to eight tablespoonfuls; sheep, one to three tablespoonfuls. Strong ale, horse or ox, one pint; sheep, quarter of a pint.

Aloes—A purgative for horse or ox. The ordinary aloetic mass and the solution should be kept at hand; both preparations should be obtained from a dispenser. Dose: Horse, four to six drams of the aloetic mass as an ordinary purgative; ox, half a pint of the solution, usually given in combination with linseed oil, in cases of continued constipation.

Ammonia Liniment—Made by adding a strong solution of ammonia and oil of turpentine, an eighth part, to soap liniment. A pint bottle, carefully stoppered, should be kept on hand. The liniment is useful in an application for sore throat, and for all cases in which an external stimulant is necessary. Must be applied with the hand and well rubbed into the skin.

Areca Nut—A useful worm medicine. These nuts should be kept in a stoppered bottle in a dry place. When required for use, the quantity should be grated by means of a nutmeg-grater. Doses: Horse or ox, half an ounce to an ounce of the grated nut mixed with the food—corn and bran; sheep, two drams; dog, half to one dram.

Calves' Cordial—A form of chalk mixture for calves and sheep. To be prepared by a chemist, as follows: Prepared chalk, two ounces; powdered catechu, one ounce; ginger, half an ounce; opium, one dram; peppermint-water, one pint. Doses: Calves, two to four tablespoonfuls; sheep, one to two tablespoonfuls.

Carbolic Acid—A powerful caustic and antiseptic, ordinarily used in combination with 50 to 100 parts of water, as an antiseptic lotion to unhealthy wounds, and for disinfection purposes.

Carbolized Cotton and Gauze—To be obtained of the druggist. Valuable antiseptic application to wounds.

Castor Oil, also Linseed Oil—Purgatives. Doses: Horse or ox, one to two pints; sheep, four tablespoonfuls.

Colic Mixture—Equal parts of laudanum and sweet spirits of niter, and an eighth part of chloric ether. A half-pint bottle to be kept at hand. Dose: Horse or ox, two to four tablespoonfuls in three parts of a pint of water.

Electuary—A soft mass, compounded with honey or treacle; must be prepared by a dispenser as follows: Camphor, two ounces; powder myrrh, licorice root, and niter, each eight ounces; extract of belladonna, two ounces; treacle, enough to make a soft paste. Dose: horse or ox, a portion the size of half a walnut, to be put at the back of the mouth two or three times a day, with a piece of stick. Useful in colds, sore throat and influenza.

Ginger—Stimulant. Forms an essential part of all cordial powders for exciting appetite; may be given with strong ale in cases of prostration from overwork and disease. Doses: Horse or ox, one or two teaspoonfuls of the powder in a pint of ale; sheep, one-fourth of the quantity.

Mercurial Ointment (blue)—To be purchased ready for use. Valuable to promote the growth of hair, and in some forms of skin disease; only small quantities may be applied.

Mercurial Ointment (red)—Binioide of mercury. A good form for blisters in case of splint or after sprain of tendons.

Niter (nitrate of potash)—Diuretic and fever medicine. Doses: Horse or ox, two tablespoonfuls daily in the drinking water, or half the quantity in the food; sheep, one teaspoonful in the food.

Salts (Epsom or Glauber)—Common purgatives for cattle and sheep. Dose: Ox, 12 to 16 ounces, dissolved in a wine bottle of hot water. A tablespoonful of ginger may be added. Sheep, four to six ounces.

Salicylic Acid—A valuable antiseptic, effective in the treatment of foot and mouth disease. Dose: Four tablespoonfuls of the acid are to be put in an earthen vessel and dissolved in a quart of boiling water; hot water is then added to make a gallon. The solution is to be used to syringe the feet and lave the mouth and nostrils, and also to wash the udder, and finally to sprinkle over the litter; half a pint of the solution may be added to the gallon of drinking water every day. The dry acid (powder) may be sprinkled on the feet after they have been syringed with the solution.

Santomine—Used to expel worms; one of the most effective agents for this purpose. Dose: Horse, 15 grains, with three drams of aloes, to be given in the morning before feeding, and repeated after two days.

Sulphur (flowers of sulphur)—A very valuable alterative. Dose: Horse or ox, a tablespoonful, with a teaspoonful of niter, may be given in the food once a day; sheep, quarter of the quantity. Sulphur mixed with any common oil forms an excellent dressing for mange or surfeit in animals.

Turpentine, Oil of—Stimulant to the skin. Internally used to expel worms; useful in "husk" in calves. Dose: A tablespoonful daily, in half a pint of mixture of milk and eggs. Lambs, one-quarter of that quantity.

Vaseline—Emollient to the skin; effective in irritation of the surface, chapped heels, mud fever, especially if mixed with an eighth part of trisnitrate of bismuth or carbonate of lead (white lead) or oxide of zinc.

Zinc, Chloride of (Sir William Burnett's disinfecting fluid)—Mixed with 50 to 100 parts of water may be used for the purposes for which carbolic acid is employed.

Sheep and Wool.

The Mohair Market.

Editors Press:—We have just received the report from Turkey that, owing to the severity of the winter and the present scarcity of water, Angora goats are suffering severely. The report goes on to state that the clip this season will not be up to the average, either in quality or quantity.

Our Constantinople correspondent states that, even with a limited demand, the receipts of mohair are quickly taken and old prices sustained.

To our own knowledge, the stocks of Turkey and Cape mohair in Bradford, Liverpool, London and New York are all small and not desirable quality. In addition to this, there is an improved demand from our domestic manufacturers.

We do not say that these circumstances will lead to higher prices for the coming domestic clip, but we give you the facts and do say that growers should not sell their mohair until they know how the market will go.

Wm. Macnaughtan's Sons.

New York, April 5th.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Temescal Grange.

Last Saturday Judge Blackwood, of Eden Grange, enlivened the meeting of Temescal Grange with some very sensible and interesting remarks. The judge is feeling good over the result of the Constitutional Amendment election, especially the defeat of amendments No. 1 and No. 2. He portrayed in a very convincing way the fact that the successful defeat of these uncalled-for amendments was to be credited to the Grange organization and united influence throughout the interior of the State. There is a double satisfaction in their defeat, for the reason that a sharp trick was evidently practiced in calling an election so soon, and putting the State to such an unnecessary expense, when the amendment could better have been submitted to the next annual election after allowing a more suitable length of time for discussion and a fair consideration of the same on the part of the people. The good feeling of the speaker over the result of the election was heartily participated in by all the Patrons present.

Rev. Alfred T. Perkins, of Alameda, received the third and fourth degrees and gave the Grange some appropriate remarks. Quite a number of the brothers and sisters addressed the Grange and made good suggestions for the Good of the Order.

Miss Jessie Weed recited "The Young Fireman's Rescue" with good effect; altogether the meeting proved a decidedly interesting one.

District Lecturer Renwick is on a brief visit to his son-in-law, R. M. Jones, postmaster of Chico.

Brother Christian Bagge is still suffering from rheumatism, but is soon expected to be a regular attendant again at the Grange.

Much interest is manifested by the members of Temescal Grange in regard to the Danville picnic, and it is hoped that a goodly number will attend, including the newly initiated fruit-grower, Brother Perkins.

The Tulare Grange Meeting.

The following personal letter, received from a fellow-Patron and old friend, will be read with interest both by his former associates in Temescal Grange and by all those who note with satisfaction the signs that our Order is growing and thriving in California.

TULARE, April 9, 1887.

My dear Friend: Our open meeting of the Grange last Saturday was a success, and good results will undoubtedly flow from it. Bros. Overhiser and Flint shed the gilding of their character all over the meeting, and made us all feel as if we were each somebody. The forenoon was devoted to the amateur speakers of our Grange and locality; the afternoon to our worthy brothers from the State Grange. I inclose you my little effort, with which the meeting was opened, and which, on motion of Bro. Overhiser, was voted to be sent to the *Patron* for publication. I would have liked to introduce your idea of an experimental farm of 10 or 20 acres, near Tulare, but did not find fitting opportunity.

Quite a number of our brothers and sisters of the Grange, and of the visitors, spoke well and to the point. Among the more noted guests were Senator Roth, Major McQuiddy, and Messrs. Patterson and Fletcher. Senator Roth begged to be excused from speaking, and the meeting, taking his natural diffidence into consideration, permitted the loss. Mr. Patterson let his logic loose on the money department of thought as the main root of all our evil; that we were suffering the effects of broken laws, among which stood prominent the money evil and the love of it. Major McQuiddy, who has been a Granger since 1873, and others, followed, all agreeing that the remedy for farming troubles lies in judicious and well-managed organization; that every school district should be the center of a Grange in preference to meeting in towns and cities.

But the *chef d'œuvre* of the day was the mid day lunch. I cannot describe it, but those who have had the good fortune to partake of the hospitalities of our sister Granges can imagine, and those who have not will have to join a Grange to discover.

In the afternoon Mr. Elder occupied considerable time, as Bro. Overhiser, who followed him, said, showing that he evidently was not a Granger. Bro. Overhiser gave a detailed account of the origin of the Grange, its principles and subsequent history. Every one regretted that the day was too far spent to permit Bro. Flint to speak at length. We will long remember the genial sunshine of his benevolent countenance, and perhaps his outspoken goodwill will partly compensate the loss of his longer speech.

Bro. Overhiser is certain to leave his mark behind him as a Granger, go where he will; a better drummer could not easily be selected.

I hope all our friends in Oakland are well and prospering. Remember me to Temescal Grange. To-morrow is Easter Sunday. I wish I were with you to participate in all the memories of that day. Your very sincere friend,

J. W. MACKIE.

The Words of a Master Workman.

Representatives of the Knights of Labor, to the number of 200, met at Harrisburg, Penn., last week, to examine the various bills concerning labor before the Legislature. Thursday night a large public meeting was held in the House of Representatives. General Master Workman Powderly presided, and in the course of his speech made this manly and patriotic utterance:

"No matter what errors we have committed in the past, we have always aimed at doing right. We have always kept clear of one thing that brings odium on our country, 'anarchy.' We rejoiced, therefore, in the defeat of the Anarchist candidates in Chicago. I read of the result of the elections in Chicago the other day, and I was glad to see and hear that the workingmen of that great city were good enough to throw and lie back into the face of those who posed as their friends and representatives. No sooner did the Anarchist ticket go before the people than its supporter said: 'We will carry the ticket through under a flag on whose face not one star glistens and not one stripe is to be found, and the teachings of such men as Powderly and Griffiths will have no weight with us.' But they found on election day that anarchy was snowed under as it was never snowed under before. I say amen to that every time. [Great applause.]

"I did not know but in the decoration of this hall you might forget to place the American flag on the wall. That it might not be forgotten, I brought this with me this morning [here Mr. Powderly produced a flag, amid tremendous applause], and I brought it down here so that if we were charged with not being Americans we could show that we were. Let them to-morrow morning, after these outbursts of applause, charge us with being anything else but free-born American citizens, and these manifestations, which you have now given expression to, will be a refutation of that lie, which will ring down the centuries in condemnation of the red flag.

"Now, my brothers, we are here, and we will stand or fall by the sentiments you have given utterance to. We are here as Americans to teach American legislation in the interest of the American people, and in our American way; and, also, to say that those men who assembled 100 years ago in the city of Philadelphia and gave out the Declaration of Independence to the world were right when they declared that all men were created free and equal and endowed with certain inalienable rights, and that we believe they told the truth, and that it still continues to be the truth, instead of a living lie, as some of these men would have the people believe. We can do this without being Anarchists, and we do it without becoming partisans, and without being tied to the chariot wheels of either end of the Democratic or Republican parties." [Applause.]

In the *Journal of United Labor* for the 16th inst., Powderly says: "The Knights of Labor need not go away from home to get 'issues' to advocate. They have a declaration of principles, any one of which, if carried out, would materially advance the welfare of the human family. Take the fourth section of our platform, for instance, 'That the public lands are the heritage of the people, to be reserved for actual settlers. Not another acre for railroads or speculators,' and 'all lands now held for speculative purposes are to be taxed their full value.' The latter clause, especially, would materially lessen the tax-rate in nearly every municipality in the country by making it profitable to build. A graduated income tax, which is the thirteenth article of our faith, would more equitably divide the burdens of taxation. Doing away with banks of issue is the third important question which will soon have to be met, for the rapid payment of Government bonds will induce the issues of illogical and expensive National bank currency to ask Congressional sanction for some other means of keeping hold of this source of income. And last, but not least, a matter of vital importance to free Government, the State ownership of railroads, telegraphs and like means of transporting intelligence, passengers and freight. On this point the Knights speak with no uncertain sound."

Danville Picnic.

We believe that excellent arrangements are being made for the Grange picnic to be held at Danville, Saturday, May 7th.

There should be a large attendance from all Granges in Contra Costa, Alameda and Solano counties, and a number are expected from Stockton and many representatives from other parts of the State. We presume arrangements will be announced next week stating specifically the best means of reaching the picnic grounds from the railroad at Martinez.

The address to be delivered by the Rev. Dr. Horatio Stebbins will no doubt be one of rare interest.

BUENA VISTA GRANGE has installed officers as follows: E. Wheatley, M.; H. Davis, S.; Wm. Hutchins, A. S.; Mrs. J. Morgan, C.; C. Page, Treas.; J. I. Morgan, Sec.; E. Wheatley, Jr., G. K.; Mrs. C. Page, P.; M. A. Morgan, F.; Miss E. Page, Ceres; N. McMullen, L. A. S. The new Grange intends to meet twice a month.

Grange Reunion.

Enterprise Grange held its annual reunion at the Grange hall, near Walsh's, last Saturday. The *Record-Union* says that the attendance of farmers and friends was large and the feast bountiful. Our special correspondent at Sacramento furnishes additional points below:

EDITORS PRESS:—The day opened with floating clouds and kept so till noon; had it been sunshiny a larger gathering would have assembled at Enterprise hall. Still, there were upward of 150. At 11 o'clock A. M. W. M., W. A. Burch called the Grange to order, as there were no classes on hand. The Grange opened to the "Good of the Order." W. L., Daniel Flint opened fire, but would not go far, as he could combat to greater advantage after some hard-tack and coffee straight.

Bro. Thos. McConnell started on the same line, but, getting warmed up, spoke of the constitutional amendments and congratulated the farmers on having defeated the same.

Bro. Hack got the floor and threw out some good thoughts. Bro. Gregg, Sr., of Plymouth Grange, deployed his battery on prohibition, and made some good shots. Bro. Toomey, who always has the welfare of the guests at heart, and knows by experience the failings of the inner man, announced dinner was waiting, which made the gavel fall, and a general promenade was the result.

At 2 P. M. an open meeting was called. W. M., W. A. Burch was elected chairman. Bro. G. W. Hack made a few remarks on the best means of gathering our crops. Bros. Wilson and Hancock got on the railroad question, slow and fast carriage of freight. Bro. Toomey threw out the question, "How can we benefit the P. of H.?"

Bros. McConnell, Hack, Hancock and others spoke on the Interstate Commerce law—the evil it is working. Bro. Krull brought up the subject of Farmers' picnic. Bro. Fassett, secretary of the old board, stated that the finances were in good condition, leaving $100 on hand. Bro. McMullen moved that the present Master of Pomona Grange appoint a committee for this year, and the appointment be ratified at this meeting. Carried. W. M., Krull announced the following names:

Sacramento Grange—John Reith, Nelson Wilcox, Harry Beach.

Florin Grange—David Reece, L. H. Fassett.

Franklin Grange—James Bradford.

Enterprise Grange—Morris Toomey, Geo. Wilson.

American River Grange—David Taylor.

Elk Grove Grange— —Hill, Thos. McConnell.

O. S. Flint and Gregg, Jr. made some good remarks on concentrating our forces on one object—to the Good of the Order—rather than scatter too much and accomplish nothing.

W. M. S. G., Wm. Johnston took in Roseville. P. W. L., Overhiser was down in Tulare; so many of our heavy guns were scattered, but our W. S. L. put in his best—both in oratory and lemon pies. All felt happy and adjourned homeward bound. G. T. R.

Official Compliment.

Bro. George Ohleyer, of Yuba City, having for the past three years served the United States Department of Agriculture, as crop reporter for Sutter county, received the following complimentary letter from Commissioner Norman J. Colman, which illustrates how important results may follow the volunteer work of farmers who thoughtfully and carefully assist the Government in its endeavors to further the interests of the great body of agriculturists by presenting careful observations and reports from the field of labor:

U. S. DEPARTMENT OF AGRICULTURE,
COMMISSIONER'S OFFICE,
WASHINGTON, D. C. Jan. 11, 1887.

DEAR SIR: It gives me pleasure to assure you of my hearty appreciation of your valuable services. By efforts of yourself and others, this Department can and does save to American farmers, millions of dollars. Combinations to depress prices would be successful but for the public confidence in our crop reports. A single penny per bushel saved to farmers in the sale of their wheat is an increase of their net resources of from $4,000,000 to $5,000,000. This is only one item in your possible benefaction to your fellow-farmers.

In acknowledgment of your gratuitous services, I shall be happy to afford you any facilities, or grant any favors within the resources of the Department. Wishing you success in your personal enterprises, and satisfaction in your continued labors for the public good, I am very respectfully,

NORMAN J. COLMAN,
Commissioner.

To Geo. Ohleyer, Yuba City, Cal.

THE HORTICULTURAL HALL ASSOCIATION, at San Jose, held its annual meeting on the 13th. The total indebtedness April 1st was reported to be $50. The building is insured in six different companies for $6500. The following Board of Directors was elected for the ensuing year: A. B. Hunter, G. W. Tarleton, W. R. Woodhams, Cyrus Jones, Frank Dunn, W. M. Manley, Mrs. N. A. Saunders, M. E. Newhall and H. Pomeroy. The new board elected Cyrus Jones, president; Captain Dunn, secretary, and C. T. Settle, treasurer.

GRANGE ITEMS.—We note in the *Patron* that Bros. Flint and Overhiser have been at work in Fresno county as well as in Tulare; also that Woodbridge Grange has been discussing the Woman Suffrage question.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

NEBRASKA FARMERS have again taken hold of Grange work in earnest. Bro. C. L. Whitney, who has been working in the State as Deputy Lecturer of the National Grange with much success, writes: "I have the pleasure of announcing the reorganizing of the Nebraska State Grange, representing 26 subordinate Granges, and over 600 members in the State. They are well officered and start off in unity. They have come to stay. Active Deputies are at once to be put in the field. I expect they will soon number 100 Granges and 2000 members." Nebraska was one of the three States that lost their State Grange in the reaction which followed the hasty organization of years ago, with its mistakes, its false friends, and misconception or misapplication of the true principles of the Grange. But Grange *truth* is eternal and must go forward, and thus one more proof is given that when once understood the Order of Patrons of Husbandry must grow and prosper. Nebraska is indeed welcome once more to our great union of Grange States.

NATIONAL GRANGE lecture work is being pushed in other directions, and those States that are willing to help themselves, and desire to take part in the genuine and general revival of Grange work now going on, will receive all possible aid and encouragement. Let the "workers" in every State apply to their State Grange officers, and through them to the National Grange Executive Committee or Lecturer, and the speaker and the printed page will come.

THE Arkansas Legislature is now in session at Little Rock. Speaking of its membership, the *Rural and Workman* says: "The social, intellectual and political makeup of this body differs from that of former bodies of this character, owing to the fact that the farmer element is more numerous than heretofore. This, taking it all in all, is a decided improvement, which we trust and believe will result in great good to the interest of that class of our citizens."

THERE are tens of thousands of good farmers in the Granges of Canada. One of them truthfully expresses the sentiments of all our vast membership on both sides of the lines that divide those who are governed either by President or Queen: "Our Order seeks no forcible solution of the 'Labor Question.' Strike or boycott edicts come not from National, Dominion, State or Provincial Granges. It seeks not to unlawfully hasten the dominion, which is by divine right and ordination, and which shall be fulfilled when 'swords shall be beaten into plowshares and spears into pruning-hooks.'"

"THE issue of free passes in Pennsylvania was estimated by the members of the Constitutional Convention at $2,000,000 a year, which, if not taken from the income of stockholders, must have been made good by higher charges upon the general public." And yet the Constitution of Pennsylvania prohibits the issuing of free passes, and the Patrons of the State will never cease their efforts until it is enforced.

What a poky world this would be if we should all get into the ruts! Let us be up and doing, organize in Granges or clubs (the Grange is the better, because it is linked with similar organizations throughout the country, State and Nation), and make the year lively and productive of great good. If we do no more than get together for a social time it will pay; but we can just as well do much more. Organization is the watchword of the times. Farmers cannot afford to neglect it. And there is no better time than the present for organizing.—*N. E. Homestead.*

THE Grange has opened up an avenue for awakening thought and arousing the farmers to action upon the great questions of the day; those which never could have been reached in any other way. The Grange has made additional proof of the idea that our education is by no means entirely a product of organized schools, or employed teachers and printed books: While they occupy a very important part, they are not all that act on our powers to develop them. "Life is one grand school, and its every circumstance a teacher." The Grange, with its beautiful and practical lessons, has power to raise men and women from the humblest walks of life to positions of influence and power.—*A. J. Rose, Master Texas State Grange.*

PLENTY of news full of cheer comes to us from our many Grange fields. F. A. Allen, Worthy Secretary of the Maine State Grange, writes: "The unprecedented cold weather of the past winter has not chilled the ardor of the Maine Patrons. Neither have the half-hundred storms, with accompanying snowdrifts piled mountain high, clogged the wheels of the Grange car. 'Dirigo' is still written on our banner. Seven new Granges have been organized this year; one of these starts off with a charter membership of 73. Many of the sleepy Granges have had an eye-opener dropped down among them in the shape of a *live* Deputy. Frederick Robie, our popular State Master, is still the same warm-hearted Patron, and, freed from the official cares of State, is doing more work among the Granges than ever before. In short, the *Down-East Patrons are all right.*"

PROGRESS.—*Four more new Granges.*

ELLINGTON GRANGE, Conn., conferred the fourth degree upon 30 members. "About 160 good Patrons sat down to the feast so temptingly spread, which followed the degree work. A few bright speeches closed one of our pleasantest meetings."

"BOHEMIAN" and "Hulless" oat swindlers are at work in Maryland. Patrons, heed the "sign of caution."

DELAWARE GRANGE, Kansas, has more than doubled its membership last quarter.

"THE smallest wave of influence set in motion
Extends and widens to the eternal shore.

HIS NOTION OF A PICNIC.—**And this is the way the Martinez *Item* invites its readers to the picnic of May 7: "Remember the Granger's picnic at Danville. Bring your friends to view the most beautiful section of California, and come yourselves to eat boiled eggs and pickles, hear some scientific discourse by a number of first-class speakers, and if you desire, eat more eggs and dance the soles off your shoes."**

Agricultural Notes.

CALIFORNIA.

Alameda.

"Our Glorious Climate."—Irvington *Reporter:* E. Powell has in his lawn several fine specimens of date-palm and bananas now in bloom. They have bloomed for several years, but have borne no fruit as yet. This shows the perfection of our climate. The fact that such tender plants can live, grow and blossom for 10 or 20 years shows that there is never any severe cold; while that they will not fruit proves we have no hot and sultry atmosphere, such as would be disagreeable and disqualify the country as a healthful and pleasant residence-section.

Butte.

A Mountain Ranch.—*Record:* H. P. Ford has built up a splendid foothill ranch some 16 miles above Chico. He has about 500 acres, all tillable land, which can be irrigated from a spring capable of supplying 300 inches of water. It is situated in the valley of Chico creek, opposite the Forest ranch, formerly known as the Weld place—a well-known point on the Humboldt road, having an altitude of 2217 feet. The canyon of the creek is about 800 feet lower, making its altitude about 1400 feet. Mr. Ford produces all kinds of vegetables, corn and melons, and is annually increasing his orchard. He now has 1000 fruit trees in fine growing condition, and 300 to 400 in bearing; 35 to 40 orange trees are about ready to fruit. He has something like 30 acres in garden and orchard, and 10 acres in alfalfa. There is no prettier spot in the mountains.

Contra Costa.

Thriving Almonds.—*Gazette*, April 16: One of the finest almond orchards in the State is that of Judge W. W. Cope, of Green Valley. (A portion of it was planted by the former owner of the place, W. Z. Stone.) The orchard comprises 60 acres of almond trees, viz.: two acres, ten years old; 38 acres, three to five years old; and 20 acres planted this season. The ten-year-old trees produce from one to one and one-half tons of almonds to the acre. The young trees are bearing nicely. Last year the crop was sold to Littlefield & Allison for 12½ cents per lb., which was above the market price at that time. They were pronounced the best in the market. The cost of gathering and preparing for the market was but 2½ cents per lb. The two acres of old trees net about $400 per year. The trees are all healthy, and no scale has made its appearance on the place.

El Dorado.

Foothill Apples.—W. H. H. Fellows, of Placerville, has sent the S. F. *Bulletin* a box of apples of excellent flavor which were grown in Cosumnes township, El Dorado county, at an elevation of 3100 feet above the sea. Mr. Fellows has procured a considerable quantity of apples from Dominick Roubardier, of Indian Diggings, and knowing that they are only a fair sample of the apples grown in that township, where quite one-half of all the land is subject to entry under the Homestead and Pre-emption laws, will distribute them about the State with a view to attracting a share of the immigration arriving. He will soon send out apples from Georgetown, Mountain and Placerville townships also.

Troublesome Hunters.—A correspondent of the *Republican* is highly indignant at the reckless trespassing upon the inclosed ranches of farmers carried on by hoodlums from and around Shingle Springs. The more, he says, you are opposed to their encroachments, the more eager are they to come, breaking down your fences, riding horseback, with half a dozen hounds, all over your grain, shooting your wire fences in two, killing your stock in their carelessness, writing obscene language upon your notices, calling you the vilest of names, behind your back, and threatening your property should you attempt to have them arrested. If people buy property, labor upon it, pay taxes upon it, and pay, perhaps, two or three times over for it, it belongs to them, and their rights must be respected. They have perfect liberty to say who shall, and who shall not, infringe upon these rights, or give them over to the spoiler. Farmers are waking up in regard to this evil, and it is to be hoped that those who have the power to do will aid them in their efforts to stop it before precious lives are lost.

Fresno.

Rooted Grape-Cuttings.—Fresno *Republican:* The common custom has been either to plant grape-cuttings directly in the vineyard or to plant them in nursery and then transplant them into the vineyard the following winter. The objection to the first method is the improbability of getting a good stand of growing vines; and the second is objectionable, because the vineyard loses almost a season's growth. Mr. J. H. Sewell, of Central Colony, has adopted a plan which appears to be a decided improvement. He planted his cuttings some two months ago by putting them in a deep trench, top ends down. They were covered entirely with earth to a depth of three or four inches. He is now transplanting them into the vineyard, the roots having already started finely, while the buds are just beginning to swell. The fact that the lower ends of the cuttings were so near the surface accounts for their starting so early. Upon samples shown us the roots are already from two to five inches in length, and, as the ground is in prime condition, they would undoubtedly grow without interruption if properly planted. In planting these cuttings, care must be taken not to break off the young roots.

Humboldt.

Mad River Items.—*Standard*, April 9: Min. Hunt arrived from the Big Bend of Mad river Sunday, and brings a good report from that section. Notwithstanding the unusual depth of snow which covered the high ranges for weeks, they begin to feel the need of moisture. Several successive days of north wind occasioned this sudden dryness. Yet feed is comparatively plentiful and good. The winter losses of sheep were trifling in that region, but coyotes and other wild animals have commenced their depredations in earnest. Two weeks ago 15 sheep were killed on the Madrone ranch in a single night. Sheep on the Madrone and Big Bend ranges are in good condition, and lambs are abundant. A very few—perhaps not more than two—coyotes are doing the mischief in the Big Bend section. They are cunning, and almost universally evade the hunter. At this season they assail the lambs, and if the first one killed is not satisfactory to the coyote's taste, he may kill half a dozen before being suited. Ordinarily they will eat away the nose of the lamb, but if pressed by hunger may devour the beast. It is just before daylight that these destructive animals make their raids upon the flock.

Inyo.

From Owen's Valley.—Reno *Gazette*: G. W. Mapes has just returned from a brief visit to Owen's River valley, and has a very good opinion of the future of that section. The climate is good, the soil in many places loamy and fertile, and water for irrigating purposes plentiful. Several California capitalists have interested themselves with a number of settlers between Bishop creek and Independence, and an irrigating canal 30 feet wide and 30 miles long has been projected, the work of constructing which will probably be commenced within 30 days. A Mr. Rawson, of Los Angeles county, has, within a few months, invested $60.000 or $70,000 near Bishop creek in ditches, lands and improvements. A great deal of public land is being taken up under the Desert Land Act, and in many parts of the valley activity and enterprise are displayed. The valley cannot only supply the neighboring mining towns with ranch products, beef, etc., but also the southern part of California, with which it will soon be connected by rail.

More About the Irrigating Scheme.—*Register*, April 14: The canal is to be taken from the river on the eastern side, near Chrysopolis. Its capacity will be 15,000 inches, and its width 50 feet at the bottom, and the estimated depth of water will be three feet. Twenty thousand acres of land have been located, and the ditch to reach this land will be 25 miles in length—in fact, extending from the point mentioned clear to the lake. There is abundant capital and energy behind the enterprise, and it will undoubtedly be pushed to completion. Further particulars will be given as soon as ascertained.

Los Angeles.

Rotation.—*Express:* Many of our pioneer vineyardists are coming to the conclusion that their old vines (now about 28 years of age) are losing in vigor, and are digging them out to make room for young vines of choice foreign varieties. A number will let their land rest by planting to barley, potatoes or some other crop for a year or two before putting in the new vines, which is a good idea. It is safe to say that very few Mission vines will be set out in the future, as they have now proved themselves as susceptible to disease as any of the other varieties.

Citrus Stock from Florida.—Pomona *Times-Courier:* The first installment of an order for 55,000 orange trees, from Jordon's nursery, Marion Co., Florida, has arrived in Pomona. This carload lot consists of 12,000 trees, mostly sour stock, shipped through the agency of Twogood, Edwards & Cutter, of Riverside, and consigned to different orange-growers throughout the valley. The demand for citrus trees this season has been so much in excess of the supply that it has been found necessary to ship trees across the continent.

Sacramento.

Reclaiming Successfully.—*Bee:* Hon. H. M. LaRue, who returned on the 12th from Andrus island, says that the reclamation scheme has worked well there; that every acre on the island is under cultivation, and the crops are looking splendidly.

Fruit Shipments East.—Sacramento, April 18th: A special train of 12 carloads of oranges and one of cabbages was forwarded East from this city to-night.

San Diego.

Horticultural Association.—*San Diegan:* The annual meeting of the San Diego Horticultural Association took place at Monument hall on the 8th. The report of Treasurer O. S. Chapin was read, approved, and placed on file. Mr. Griffin stated that it was well known that the cottony cushion scale had been found in eight places in this city and an effort had been made to entirely eradicate the pest. Mr. Asher said the danger in spraying consisted in the too copious application of the fluid, thus washing the scale off, instead of soaking and killing it with a fine sprayer. He thought that sufficient attention was not given to burning and destroying rubbish about orchards and farms. New boxes should be used for fruit under all circumstances. Mr. Chapin favored the appointment of efficient inspectors to inspect every orchard in the county at stated intervals. The following officers were elected for the ensuing year: Pres., J. M. Asher; 1st V. P., W. E. High; 2d V. P., F. H. Heald; 3d V. P., Chester Gunn; Sec. Geo. H. Bower; Treas., O. S. Chapin.

Water Storage.—National City *Record:* Some three years since we located on certain lands, where we found well-diggings somewhat expensive, the water a hundred feet below the surface, and in a stratum of quicksand difficult to curb and control; but we observed upon our prospective ranch numerous dry water-courses, where the necessary element for vine and tree culture had been wont to course its way unobstructed toward the sea; and it occurred to us that one of these dry ravines, having an abundant watershed, could be easily and cheaply dammed, and the soft rain-water thus be made to do duty and pay for itself. The experiment has been tried, with most gratifying results. We have found this method for securing water much less expensive than well and requisite windmill; and the water obtained incomparably superior. Of course it is soft and perfectly pure, and when applied to vine or tree it is quite warm, instead of cold. In this temperature of our reservoir water, we have no doubt, lies the secret of the phenomenal growth of our trees, vines and vegetables. Orange and lemon trees set last year, from two to four feet in hight, bore some fruit late last year, others are now in fruit, and nearly all have a marvelous number of buds, blossom and fruit just forming.

Santa Clara.

Red Scale Abating.—San Jose *Mercury*, April 16: There seems reason to believe that the red scalebug is dying out. Orchards that have been badly affected, and which, early in the season, looked as though a fire had blasted them, are rapidly recovering, and in many cases the new growth has almost completely hidden the dead twigs, and the trees are becoming healthy. It is now to be hoped that the pest is dying out and will disappear.

Promise of Honey.—The rains cause much rejoicing among the bee-men, and the honey crop promises to be good. Early in the season they anticipated a failure, but the rains have made the change.

Santa Cruz.

Subsoiling.—*Courier Item:* While exploring the route of the proposed extension of the cliff road, our reporter observed the operations of subsoil plowing now being carried on by F. D. Bennett on the Hall ranch. Ordinary plowing in this country only turns over the surface soil to the depth of about four inches. The subsoil plow follows in the furrow, cutting and loosening the soil to an added depth of about eight inches, but does not turn it over or raise it to the surface. It permits air and moisture to circulate, and loosens the earth so that it will admit the root-fibers of the growing plants to find sustenance and moisture in the virgin soil hitherto impenetrable. Mr. Bennett expects to cross-plow this field and plant to corn. We shall watch the growth and yield and report to our readers later in the season.

Sonoma.

A Money-Making Lemon Tree.—*Index-Tribune:* Mrs. C. C. Carriger has a 15-year-old lemon tree on her place, one and a half miles from Sonoma, that has produced 44 boxes of lemons this season. At $1.50 per box (a low figure for these particular lemons), the earnings of this tree this year would be $66.

Poisoned Wheat.—Santa Rosa *Republican:* Friday afternoon J. P. Weems, while working around a house recently vacated at Sonoma, gave his horse a few mouthfuls of wheat found at the back door. In a few minutes the horse was dead. The supposition is that the family recently living there poisoned the wheat to kill squirrels, and had thrown it out. Though four children were with Mr. Weems, fortunately not one tasted the wheat.

Stanislaus.

A Useful Reptile.—Modesto *News:* Yesterday a large dog belonging to Joel Ripperdan killed a snake measuring over 5 feet in length and 20 inches around the body. The body showed large indentations, which were cut into to ascertain the cause, when his snakeship was found well filled with young squirrels, three of which were cut out almost whole. The snake was black, with yellow spots. It is rarely that a snake of the above species is seen in this county.

Tulare.

Hogs as Harvesters.—Charles Sanborn, one of the county's most enterprising and prosperous farmers, lately informed the *Times* that he had made and could make more money feeding his grain to hogs in the field than he could by harvesting and thrashing it, even when hogs were bringing only $2.25 per cwt. He finds that 80 acres of wheat harvested by hogs will net more to a farmer than 160 acres of grain harvested, thrashed, sacked and placed on the market. "Had it not been for hogs," said he, "I would have been bankrupt long ago."

Horses or Cattle?—Visalia *Times:* Several farmers were discussing the profits of stock-raising the other day. One stoutly maintained that the most money was to be made in raising cattle; but another rancher stated that he was raising horses, while a neighbor raised cattle, and that he had just traded a number of colts to the cattle-raiser, receiving therefor two two-year-old steers for every two-year-old colt. It had cost no more to pasture each colt on [illegible] than it had cost to pasture each steer.

Tehama.

Shearing Commenced.—Red Bluff *Sentinel:* A band of 3300 ewes and 3000 lambs, belonging to H. A. Rawson, passed through town Saturday, from the north en route to Mr. Rawson's shearing pens on Red Bank. Cone & Ward have commenced shearing their band of 8000 wethers. The sheep are carrying a year's fleece.

Yolo.

Strawberries.—*Mail:* Martin & Baker have three acres planted out to this delicious fruit, three miles north of Woodland, near Nelson's bridge, from which a box of berries was picked on April 9th and brought to our office, each berry measuring from 2⅛ to 3½ inches in circumference. The indications are now that these gentlemen will take from $2500 to $3000 worth of berries off from this three-acre lot. Who among our wheat farmers that planted 160 acres last year realized as much? Who says that a family cannot be supported off from 20 or 40 acres of our Yolo county land?

Crop Prospects.

The reports that have been coming in from different portions of the State, since last week's general rainfall, are right cheery and hopeful. With but few exceptions "the farmers are jubilant" at the outlook; and in Northern California the showers of Tuesday night have deepened the previous confidence in good returns from the fields. Lassen and Mendocino, Colusa and Yolo and Sacramento sing the same song of glad anticipation. The Petaluma *Courier* says: "The grain crops were never more promising at this season of the year. So far we have not heard of the Hessian fly, and from present indications the little grain pest has taken his departure—we hope forever."

In the San Joaquin, where the early drouth was so depressing, a tone of encouragement prevails. The Merced *Argus* of last Saturday pronounces the grain crops of the valley "as forward as usual at this time of year," and adds that "the rainfall along the foothills and in the mountains has been much heavier than here, and farmers and stockmen are well pleased with the situation. On the adobe lands crops promise well and will require but little more rain to insure a full average. The sand-plains also, since the warm weather set in, are making a good showing for all kinds of small grain—summer-fallow especially being considered good for a full crop."

Even in Tulare and Fresno, where apprehensions had been most serious, from half or two-thirds to a full average yield is now hoped for. The Tulare *Register* remarks that "the territory within eight or ten miles of the foothills is almost certain of good crops from one end of the county to the other. * * * All the irrigated portions of the county will have good crops, but some of the plain land west of the railroad will fare rather badly, unless rains continue very late in the season. Good reports come from Mussel Slough and the 76 country. Harvesting will be less expensive than last year because the straw will be lighter; weeds will not be so troublesome, and indications all point to better prices than were obtainable last year."

In the coast counties south of the bay, and in Los Angeles and San Bernardino, the outlook for grain and feed is at least satisfactory.

The fruit prospects throughout the State are uniformly bright. Some little frost-work is mentioned in Lake and Napa, and even in the big Nadeau vineyard near Florence, but no material damage has been reported; and the large body of snow that has been piled upon the mountains gives assurance of plenteous water for summer irrigation.

A Valuable Fertilizer. — In another column may be found the advertisement of the Mexican Phosphate and Sulphur Company's fertilizer, from their Guano islands in the Gulf of California. This article is pronounced by Professor Hilgard, of the State University, to be of a high grade and especially adapted to use in our State on account of the predominance in it of phosphoric acid, of which our soils are scant. In view of the gradual impoverishment of our lands, which have been worked from the earliest days without fertilization, it would be wise for our farmers and fruit-growers to give this valuable fertilizer a thorough trial. This company, of which H. M. Newhall & Co. are the agents, has been engaged for two years past in exporting it to Europe, where there is a ready market for all they can ship. Their thoughtfulness for California, in introducing it here, should be recognized, and encouragement should be given the enterprise on account of the benefits likely to accrue from its use to the agriculturist and the State at large.

Draw-Gate.—S. T. Coulter, of Santa Rosa, Past Master of the State Grange, has invented a draw-gate that has many excellent features for opening and closing. He has placed one on his farm at the main entrance, which has been in practical use for some time. Any person can open and close the gate with but little effort while sitting in a buggy. We expect soon to illustrate this gate with full description in the Rural Press. From a cursory examination, it seems to be in cost and adaptability one of the best if not the best gate that has been placed before the public.



The Jutland Stork.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

The rainbirds flock to mead and *kjar*,
With chorus of "peewit,"
Where nests quite safely hidden are
From foes; but one foul wit
There is, who cruelly does loot
The frog-ponds and the reeds,
And, unlike trade rats, gives no boot
For thefts on which he feeds.

This thief is worshiped as a saint
By peasant, lord, and child,
And promenades without restraint
The lawn or morass wild.
Though bird of passage many claim
(If true, he's somewhat kind),
In April comes he with his dame,
His last year's nest to find.

He finds it on straw-thatched roof,
Well-kept by courting peasant,
Who knows the stork brings ample proof
That all his wishes pleasant,
Of ample harvests, health and gold,
Are sure to be forthcoming,
If he his spread wings choose to fold,
Returned in April gloaming.

He knows his license, and 'tis said
He loves his fatherland,
When Egypt's streams he cares to wade,
Which are at his command.
His storklings take a week's advance,
In early autumn time,
Then wife and he the sea's expanse
Face for a milder clime.

In winter quarters, safe and sound,
He rests him with his band,
Then enters on his daily round,
On one long leg to stand.
Perched on some chimney for the night,
Or with majestic poise,
March, forage lowlands, or take flight
In migratory choice.

Then when he hails the coming spring,
He cries out "Fatherland,
I come, I come on eager wing
Unto thy lovely strand!"
Then spreads his pinions, speeds away,
And on and on he goes,
Till Denmark's youth in greeting stay
Him with stork-songs he knows.

Santa Barbara.

Bonnie Lassie.

[Written for the RURAL PRESS by HOONOS].

(*Concluded from our last.*)

Days passed, and Lassie neither saw nor heard from Rob. She began to worry secretly over this first serious quarrel with him. Two weeks after the picnic her father handed her a note which he had brought from town.

"I met Rob in town," he said, "an' he gave me this note—some invitation, I s'pose. He looked sorter glum. Hadn't saved up as much as he wanted for that house of his—eh, girl?" and he pinched Lassie's blushing cheek ere she turned to run upstairs to read her letter in private.

Lassie had thought much in the last two weeks. Rob's absence and silence had taught her how much she would miss him if he were permanently estranged. Her fingers trembled with eagerness as she opened the note. It was short, but contained enough to make Lassie sink into a chair and turn faint and white:

Darling Lassie: Though you cast me off, I can't help loving you, and for your sake I am going away. You said that you wished I would go, and that if I stayed you would hate me. I can't stay and see you love another, and it would be worse than death to have you hate me. I am going to China and then to Australia with my brother, and I never intend to come home again. I hope I'll be drowned, as life is worthless to me without you. Good-by, my darling, and may God bless my bonnie Lassie. Yours for life and eternity,

ROB.

Lassie hid her face in her hands and sobbed, after the first shock was over.

"O Rob! dear Rob!" she moaned, "I loved you after all. How can I bear it to have you go away?"

But remembering that perhaps he hadn't gone yet, she hastened down and out to the barnyard, without waiting to dry her eyes. There she found her 14-year-old brother.

"Henry," she said, "saddle up Beauty right away and then come to me! Be quick!"

"What's the rush?" he asked. "Who is going where?"

"Don't ask questions now. I haven't time to answer. It's *very* important. *Do* be quick, *dear* Henry."

Having started him, she hurried back to her room, and with trembling fingers penned the following:

Dearest Rob: Don't go. I didn't mean what I said. I *do* love you, dear. Stay, and come back to your penitent LASSIE.

This she sent, by Henry, to Rob's home, and then waited in a fever of anxiety for his return. She flew to her mother and on that faithful breast sobbed out the whole story of the quarrel about nothing and Rob's sudden determination to leave. Lassie was blamed and soothed in the same breath, and was almost calm when Henry returned.

"He went to San Francisco on the train this afternoon," said the breathless boy. "But his brother will send the letter after him. It may catch him in the city, or else it will follow him to China. Say, I'm hungry. Supper most ready?"

After the first shock and intense grief at Rob's departure with anger in his heart, Lassie's hope sprang up brave and strong. She haunted the postoffice for a week, feeling, with the confidence of youth, that Providence *must* arrange matters so that Rob would get her letter before he left the city. When this hope was killed by hearing that the steamer had started with Rob the very afternoon he had reached the city, and when she knew that he could not return until her poor little note followed him to China, then she felt the full force of her loss.

She began to read the Marine News in the paper, and whenever a ship arrived from China, she would go to the postoffice with renewed hope. The white-haired old man who distributed the mail would hand out the letters with a deliberateness which drove her almost frantic.

"Thar's a paper fer J. P. McLane, an' a magazine fer Douglas M. McLane, an' two letters fer Mrs. Matilda McLane, an' that's all."

"Surely there *must* be a letter for me *this* time," pleaded Lassie. "Look again, grandsire—perhaps you missed it. Please look again."

But none came for Lassie, and she, poor girl, would go back to her home and her work with a fresh pain in her heart.

"Mother," she said one day, as they sat sewing, "do you believe I really love Rob? I miss him and long for him all the time, but my appetite is still good. If I love him so, why don't I grow pale and thin?"

"My dear child," answered her mother, with a tender smile, "you have a healthy mind and body. It is not the truest love that makes one peak and pine. Love should make one braver and better, and I have rejoiced to see you keep on at your work with such courage."

"But in books, the nicest girls always grow pale, and their eyes grow large and sad when their lovers leave them," insisted Lassie; "but I am as plump and rosy as ever, and my eyes aren't a bit larger."

"Your outdoor, active life keeps your appetite up," said her mother, "so your health is uninjured, thank heaven. But I have noticed one or two effects of your love."

"What is that, mother?" asked the girl, eagerly.

"Since the first absorption of grief has passed away, you have been gentler with the children; you have tried to control your hasty temper, and have tried to be more thoughtful for me."

"O mother!" cried Lassie, with tears in her eyes, "has there been any difference? No one knows how hard I've tried."

"*I* know, dearie," said the mother, smoothing the curly head.

"I knew it was my fault Rob went away," murmured Lassie brokenly. "I knew I had been hasty—unkind. I felt I ought to be different—try to do better—so I wouldn't have cause to regret anything else as I do this. O mother! I feel, like Cain, that 'my punishment is greater than I can bear.'"

Lassie sobbed on her mother's breast and was comforted.

* * * * *

Two years passed away, and Mayday dawned fresh and clear once more. A year ago, Lassie had stayed at home and cried herself sick at the memory of that other day. But to day, her mother persuaded her to go with them.

When the dancing began, a bronzed and bearded stranger took his station under a tree to watch the dancers. The one his eyes rested on oftenest was bonnie Lassie. At the close of a dance she happened to glance toward him. Through the disguise of thick beard and brown skin which had hidden him from all others, Lassie knew her lover. Her cheek paled with deep emotion. Quietly leaving the dancers, she approached him with outstretched hand.

"Rob?" she murmured beseechingly.

He hesitated, flushed, and finally took her hand as though against his will. To break the embarrassing silence, he took refuge in a commonplace "I'm glad to see you enjoying yourself, Miss McLane."

But Lassie, unconscious of any one but Rob, still kept her eyes fixed on his with a tender, pleading look.

"You have never forgiven me! O Rob!" she said, with a half sob.

"The people are all staring at us," said Rob, with a man-like dread of scenes. "I have a buggy here. Will you go with me?"

Without a word, Lassie followed him. Neither spoke until they were out of sight and sound of the picnic. Then Rob, turning toward her, saw her sitting, pale and trembling, with tightly clasped hands and unshed tears dimming her sweet eyes. All the accumulated bitterness and resentment of two long years melted away at the sight of Lassie's grief. He drew her to him and kissed the quivering lips.

"Darling Lassie," he whispered, "I love you still—love you forever."

"O Rob!" sobbed Lassie, "I loved you all the time."

Everything was settled then and there, and for awhile the horse chose its own road, while the reunited lovers enjoyed the bliss which comes but once. When the horse tried to cross a deep ditch, the young folks descended to earth once more and entered into explanations. Rob had never received Lassie's note, but had wandered from land to land, trying to forget her, till, drawn by the love which would not die, he had wandered home again, with money enough saved to buy a farm.

Two months later the McLane house was greatly excited, for it was Lassie's wedding-day. Rob refused to wait longer.

"I want to be sure of you," he said, teasingly, "before you get mad again."

"O Rob!" cried Lassie reproachfully, "I never, never get mad at you now."

Lassie and Rob were alone in the parlor, when Henry brought in a letter for Rob. It was Lassie's note which had followed him everywhere, reaching each place just too late. They read it together, and Lassie dropped a shining tear upon it, but smiled the next instant, for Rob took her in his arms and kissed her, saying:

"Never mind, dear. It is a wedding present from Uncle Sam. And in spite of its failure to reach me before, we are now united in happy love, my darling Bonnie Lassie."

Livermore, Alameda Co.

Fashion in Fiction.

[Written for the RURAL PRESS by A. F. BATELLE.]

Fashion rules the world—ay, a variety of worlds. The world of dress is the one over which its sway is most despotic, but it extends even to the field of literature. To prove this, let us cite a few instances to be found in fiction.

A few years since the accepted heroine was a girl with "midnight eyes" and "tresses the hue of the raven's wing." Then as blondes became the accepted type in fashionable circles, they were received into novels also, and, at the present moment, the maiden possessing gray eyes and tawny mane (otherwise golden brown locks) is the one about whom romance twines. Of course when one knows the particular beauties of her eyes, hair and complexion, she is ready to be booked.

She may count *know*, *throw* and *blow* as regular verbs; she may never have read English history or heard of Michael Angelo, but she makes just as good a heroine.

This, however, is explained by a line from "Nasby's" "Hanner Jane":

"Her *dear* she spelt with double *e*,
Her *kiss* had but one *s*;
But when a man's in love,
What's one letter more or less?"

Fashion asserts itself in plot as well as in the type of the heroine. When I began reading novels, the thread of the story usually ran in this way: Characters—young man, maiden. The side personages to suit the taste, whose principal occupation should be that of placing obstacles in the way of the principal actors. Who ever heard of the course of true love running smooth?

When opposing forces died, which they always did most opportunely, a happy denouement was rung by wedding bells.

This plot became threadbare—in fact, wore out so entirely that another had to be substituted. Since stern fathers no more keep ferocious dogs or shotguns to use on Romeo, our novelists adopted another and more sensible course.

Recognizing the fact that not even plighted lovers have angelic tempers, they use a quarrel to separate them; the girl marries, is left a widow, then united to the object of her youthful affections. Or a more common plot—girl jilts; young man faithful for 20 years, then marries a girl half his age. Really, the tendency is toward girls who still cast a lingering look at their dolls, being wooed by men whose years number two-score. And another quibble of fashion is to make the story realistic. Some writers succeed so well that after a careless perusal we wonder if it is not true, and if we have not discovered an author who is tediously fond of details. But since we read the stories and enjoy them, why complain?

Marysville.

HOUSEWORK PREFERRED TO SHOPWORK.—The key to the much-mooted servant-girl question lies in recognizing the fact that every human being needs a measure of personal freedom—of respect *as an individual*, with some tastes and interests of her own. In a true republic, the cook or the chambermaid may rightfully claim to be treated as a helper, not a helot. The *Alta* credits one self-respecting girl, who shows all the instincts of a lady, with saying that young women of her class will do house service in preference to working in shops if the following guarantees are given: 1. A definition of what a day's work means, and payment for all over-time required, or certain hours of absolute freedom guaranteed, especially where the position is that of child's nurse. 2. A comfortably warmed and decently furnished room, with separate beds if two occupy it. 3. The heaviest work, such as carrying coal, scrubbing pavements, washing, etc., to be done by others, with a consequent reduction in the wages. 4. No livery if there is a feeling against it. 5. The privilege of seeing friends in a better part of the house than the kitchen, and security from any espionage, whether the visitors are male or female.

For the Last Time.

The last Sunday evening that Henry Ward Beecher preached in his church, he lingered a little while after the congregation had retired to listen to the organist and two or three members of the choir who were practicing the hymn:

"I heard the voice of Jesus say:
Come unto me and rest."

Two street urchins wandered into the building, and one of them was standing in the position of the boy whom Raphael has immortalized, gazing up at the organ. The old man, laying his hands on the boy's head, turned his face upward and kissed him, and, with his arms about the two, left this scene of his triumphs, his trials and his successes forever. It was a fitting close to a grand life, the old man of genius and fame shielding the little wanderers, great in breasting traditional ways and prejudices, great also in the gesture, so like him, that recognized, as did the Master, that the humblest and the poorest were his brethren—the great preacher led out into the night by the little nameless waifs.

This incident moved John W. Chadwick to write these verses, which appear in the *Christian Union:*

Plymouth Church, Feb. 27, 1887.

The preacher's evening task was done;
The crowd had gone away;
But something pleaded with his heart
A little while to stay.

For him alone the organ pealed;
For him alone the choir
Sang soft and low, in sweet accord,
The song of his desire:

"I heard the voice of Jesus say,
'Come, weary one, and rest.'"
What prophecy for him was there
How little any guessed!

As lovingly he lingered there,
Ere yet the music died,
There came two urchins from the street
Unfearing to his side.

The old man bowed, and lifting up
A soiled and homeless face,
He kissed it as a mother might,
Then turned to leave the place.

On either side the urchins trod;
And on the left and right
A loving hand on either pressed:
So out into the night.

Out, little thinking as he went
That never any more
His willing feet should inward go
That sacred threshold o'er.

And it was well: more fit good-by
No genius could devise;
No thoughtfulness of loving hearts
No wisdom of the wise.

The "little ones" had always been
His chiefest joy and care:
With them alone let him go forth—
And God be with them there!

And down the future he shall go,
And through the enfranchised land,
A loving smile upon his lips,
A child on either hand.

WAITING FOR THEIR SON'S RETURN.—Sorrow was weighing on the hearts of two gray-haired old people. Silas was their idol. Through the long four years they had heard no tidings. Every night and morning of this tedious waiting, the old man, after his usual formal petitions (which embraced the whole human race, and then the heathen whom he always annexed separately), prayed not formally, nor in the Bible phrases, but in his own homely dialect; in words not chosen but coming directly from his heart, that his son, their son, should be returned to them. Now, since the return of their son's comrades, each night and morning the old couple rose from their knees with tears glistening in their faded eyes and trickling down their withered cheeks; rose and went to the window in the morning, or opened the door at night, to see if their prayer had been suddenly answered. The old man had lately taken to sleeping downstairs in the front room, "So I kin hear the boy 'fore he gets to the door, an' open it fur him," he said. Frequently during the night, which is so long to old people, the poor father would go to the door and look out; and if the noise of opening and shutting happened to awaken his wife, she would call down to him in her shrill little voice, "Is that you, Sam?" To which the invariable reply was, "Yes, Sally; I was jes a lookin' ef I could see anythin' of the boy; but there aint nuthin'."—*G. J. Preston, in the American Magazine.*

"WHISKY will never hurt anybody who lets it alone," is the foolish answer often made to men who appreciate the full terror of the curse that is upon us. Facts corroborate the dispatches published in the Chicago papers, which charge drunkenness upon the guilty crew of the freight train on which a score of human beings were dashed to a horrible death in the recent Baltimore & Ohio disaster. It is but one more of a million proofs that the statement is an egregious falsehood. Whisky more often hurts the innocent than the guilty.

SURE TO RISE.—"I've got a little money to invest, and I want your advice."

"In regard to what?"

"I want to invest in something that is sure to rise."

"Buy thermometers."

Verses.

[Written for the Rural Press by E. E.]

CHARACTER.

Build up thy pyramid higher;
Each step thou shalt build up entire
Will show to thy truth-seeking eyes
Life's broader horizons and skies.

THE REPROOF.

I say it for heartfelt truth,
The word that gives us pain
Is often the needed lash,
That rouses our might and main.

Woman's Work.

[Written for the Rural Press by Jewell.]

This question of woman's work is a deep and serious one, worthy of profound thought, deep reflection, and much experience. After years of the latter, much study and observation, I have arrived at what seems to be the true solution of the problem, contained in the one word "co-operation." Then each of us can have the opportunity of doing that part of the labor congenial to the taste, yet equally important for the general welfare, comfort and enjoyment of the whole.

I admit the present state of society is not ripe for this "Utopian" idea—especially is this true of the farmer and pioneer; so I will not elaborate my pet idea now, but state a few facts relative to the possible elevation of woman's work from drudgery into comparative ease. Until a year ago I did not believe such a wonder existed as a refined, lovable, educated woman who really enjoyed housekeeping in every branch. But I saw her. She was a young mother, too, rearing her little family, busy as a bee, and singing like a lark at her housework. I asked her what part she liked best. "Every bit of it," was her reply; and I believed her as the days went by and I saw her daily sweeping, dusting, cooking and cleaning house all the time. Such a radiant smile as she wore! and the order and neatness of the house left a picture never to be forgotten. I thought then, this is what our homes might be if we all loved housework and cooking. But the fact remains that all do not; then what shall we do about it? I'll tell you—*try to*, if your circumstances in life have placed you where it is your duty to perform such labor.

There are many ways in which our labors may be greatly lessened, and indeed I believe it is every woman's duty to lighten her own burdens and those of others, too, as much as it is possible and consistent to do. Many women double their toil by lack of thought and system. Plan your work, and "make your head save your heels," as the old saying is. Then, too, American housewives do too much fancy cooking, in the way of pies, cakes and puddings. A plain, substantial dinner, well cooked, with its sweet bread, butter and fruit (dried or canned), is much more wholesome, and, with an occasional dainty of pie or cake, etc., keeps the appetite keen to relish such things.

Our home mother must not forget her duty to herself, in spite of the great calls upon her time and labors.

Always take a daily rest and read, which refreshes the body and mind wonderfully. One bright old lady of 80 gives her experience of how to keep young and healthy, in spite of a long life of toil and family cares, by saying that she made it a point to take a daily nap in spite of duties and home cares. This is not always possible with all temperaments; where the brain is active and the body strong, a rest with a book or paper is sufficient, or an hour's writing will often rest the worker as well. Do not overwork, but simplify it; even neglect some rather than become discouraged. Don't make a slave of yourself to your duties, but enjoy the result, if you cannot the labor itself. Bear in mind that a tired cook spoils the food, while a cheerful face and kind word add a spice to the meal nothing can replace. Every person should survey the burdens of life hopefully and cheerfully, and, fitting them to their shoulder, carry them bravely along. Don't try to shirk your part of the world's duties on to other shoulders or desire to carry only those agreeable to you, nor drag them along, as many do, adding more work and of a more bitter kind, too, to bear. Plan it as we will, this work has got to be done by some one. And if that some one does not like to do it, but is obliged to by circumstances over which she has no control, then comes in play self-abnegation or the fitting of the burdens to the brain and shoulders, making our duties, when willingly borne and evenly balanced, but half the weight to carry. This might be termed spiritualizing our duties. Instead of being pulled down by them, we raise them and advance in life with mental freedom and happy self-consciousness.

Los Gatos.

When a fire alarm is rung in Rome, "the firemen draw an engine to the fire, while grooms lead the horses behind the engine." No wonder Nero had plenty of time to fiddle.

Young Folks' Column.

The Four-Leaved Clover.

[Written for the Rural Press by Aunt Susie.]

Once upon a time a little girl named Goldenlocks was sitting on the doorstep of her home, just at sunset. She had been reading a book of fairy stories, and as she finished it she said: "O dear! how I would like to see the fairies dance just after sunset, as it tells about in this book. O dear! O dear! I wish so much that I could!"

Just then she heard something that sounded like a low laugh, looked around, and then she saw a fairy—a wee little bit of a creature. She was all dressed in white. Goldenlocks was much surprised, but kept very still, for fear she would frighten the fairy away, who in a moment came up to Goldenlocks and said:

"I just heard you wish you could see my little people dance after sunset. Now I know you are a good little girl, only you are not very patient. I have often watched you when you did not know it, and I'll tell you how you can see us dance to-morrow, if you have patience to do what I tell you. When it is nearly noon, you go out to the clover-field and hunt for a four-leaved clover, and if you find one just as the town clock strikes 12, you keep it, and then when the sun gets nearly down behind the hill, and the sky is all gold and red, you go to the clover-field again with the four-leaved clover in your hand, then you pick four pink clover blossoms, and pull out all the little pieces, one by one, and eat the honey from the end, and if you do not miss one, just as you throw away the stem of the last one we will all come up and dance;" and before Goldenlocks could say "thank you," the fairy was gone, but she said to herself, "I'll do it, I will be patient;" so then she went in the house and told her mamma all about it, and dreamed all night of the dear little fairies. The next day she went to the clover-field, and hunted, and hunted, till her patience was nearly gone; then, just as the big clock in the church steeple struck 12, she found a four-leaved clover; she fairly danced with delight, and ran home with it. She was so excited she could hardly wait for the sun to set, but at last she saw the good old faithful sun getting very near the hill, behind their house, so out she ran to the clover-field again, and stood there with her hat off, and her golden curls flying in the cool evening air, and her bright blue eyes just dancing with delight. She picked four pink clover blossoms, and began to pull out the little stems, one by one, and eat the honey on each, but it was slow work for a little girl who was so anxious to see the fairies dance, and more than once she said, "O dear! it takes so long." But she persevered, and at last, just as she threw away the stem from the last blossom, the sun went down behind the hill, and the sky was a blaze of red and gold; then up came a host of little fairies, and they all danced in such a pretty, graceful way. Goldenlocks stood as still as a mouse, and then all at once, away flew the fairies, all but the one who spoke to her before; she came up to her again and said:

"Well, little girl, how did you like it? I did not tell my people you were here, because they don't like to have me let you big people see them, but you were so anxious to see us, I could not resist letting you. I am glad you were so patient about the blossoms. Run home now and keep on being a good, gentle, patient girl; kiss me and I must go." So Goldenlocks bent down and kissed the tiny creature before her, and said, "I thank you very much for the pleasure you have given me, and I will be more patient." Then away flew the fairy, and Goldenlocks ran home and told her mamma all about it, and said: "Now, mamma, I really will try to be more patient and not fret when you want me to learn a long lesson, or pull the weeds from your flower-beds. I thought I never should get all those little pieces pulled from the clover blossoms, but I am so glad I kept on, for now I have seen the fairies dance, and I am going to be as patient as you can wish me to be." And she kept her promise.



FLORA AND HER PETS.

Luck vs. Labor.

A king once said to his minister: "Do you believe in luck?"

"I do," said the minister.

"Can you prove it?" said the king.

"Yes; I can."

So one night he tied up to the ceiling of a room a bag containing peas mixed with diamonds, and let in two men, one of whom believed in luck and the other in human effort alone. The one who believed in luck quietly laid himself down on the ground; the other after a time found the bag, and feeling in the dark the peas and stones, ate the peas and threw the diamonds to his companion, saying: "There are the stones for your idleness."

The man below received them in his blanket. In the morning the king and minister came and told each man to keep what he had found. The man who believed in trying got the peas which he had eaten; the other got the diamonds.

The minister then said: "Sir, there may be luck, but it is as rare as peas mixed with diamonds; so let none hope to live by luck."—*Chatterbox.*

Domestic Economy.

A Lesson at the Boston Cooking School.

No doubt our readers will be interested in a part of a report given by the Boston *Globe* of one of Miss Maynard's lectures in the Boston Cooking School. The lecture was accompanied by a practical demonstration—that is, by actually preparing the dishes described:

Sponge Cake.

Beat yolks of five eggs to a stiff froth; add slowly one cup powdered sugar, beat well; add one saltspoon salt and the grated rind and juice of one-half lemon; then add whites of five eggs beaten stiff and one cup flour. Bake one hour.

The first thing to see after is the fire. Have a very moderate oven, a great deal more so than for any cake in which butter is used. The cake should be well risen at the end of 15 minutes and browned at the end of half an hour.

Separate the yolks from the whites and remove the little hard spot or germ from the egg. Measure out the sugar and then sift it, adding to yolks slowly as directed. Granulated sugar, the finest, will do perfectly well for all ordinary cake, but the powdered should always be used for sponge cake.

Be sure to beat the yolks very well before adding the sugar, having them thick and light colored.

In adding the flour, put in one-half of the amount, then put in the whites of the eggs and add the rest of the flour. If all the whites are put in at first the whole will be made too thin; if all the flour is put in at first it will make too thick a dough to cut the whites into successfully. Bake one hour.

If the oven is too hot, a crust will form on top of the cake, and it will not rise any more. The test for a cake being done is to have it shrink away from the sides of the pan. This never fails except, perhaps, in a very large loaf of cake. The cake may be moved about in the oven if necessary, but be careful in opening and shutting the oven door to do so quietly, so as not to jar the cake, as this will make it fall oftentimes.

In reply to some questions on the subject, Miss Maynard said she considered sponge cake the most difficult to make. As to where the secret of success lay, she thought it was in great care throughout, especially in beating the yolks and in baking the cake.

In cutting sponge cake or any other cake that is warm, cut through the crust only and then break the rest. Cutting all the way down through would make it heavy and tough.

This is the same rule which is used for lady-fingers, only for the latter it must not be beaten so much.

Fried Muffins.

One egg, 1½ cups sugar, three-fourths cup milk, 1 teaspoonful baking-powder, 1 saltspoon salt, flour to make a stiff batter. Mix salt and baking-powder with a little flour. Beat the egg, add the sugar, and beat again. Add the milk and flour to make a stiff batter. Drop from the spoon into hot fat.

These are the old-fashioned pancakes which our grandfathers used to eat with cider. They seem to need some acid with them, say jelly or some sharp sauce.

In frying them the fat should not be so hot as in the case of croquettes, which are cooked already and need only to be browned.

Have the fat about hot enough to brown a bit of bread while one is counting 60. Take up a spoonful of the mixture and scrape the bottom with a knife held in the right hand so none of the mixture will fall into the kettle; then scrape out the spoonful into the hot fat. Take care not to have too large a spoonful, as they swell a good deal in the cooking. Test by sticking in a fork. Serve hot and plain, or with sauce, as indicated above. Very nice for breakfast.

Potato au Gratin.

Cut six cold boiled potatoes into dice. Make a sauce by melting two tablespoonfuls butter, add two tablespoonfuls of flour and pour on slowly one cup white stock and one cup milk; season with salt and pepper and add four tablespoonfuls, heaping, of grated cheese.

Put a layer of potato into a baking pan, and pepper; then some of the sauce, more potato, and so on until all is used. Sprinkle with crumbs and brown in the oven.

Let the crumbs used be buttered. Put all into a dish in which it can be served when done, as it must not be taken out of the dish in which it is cooked. A porcelain dish to go inside a silver or plated cover may be used, or an ordinary white or yellow "nappy," which may be hidden by a pretty fringed napkin folded about it.

Bread Griddle Cakes.—One pint milk, 1 cup stale breadcrumbs, half teaspoonful salt, 1 egg, 1 teaspoonful baking-powder; flour to make a thin batter. Soak bread in the milk 1 hour, then beat it smooth; then add beaten yolk, flour, baking-powder and salt, and beat again. Then add the white of an egg beaten stiff.

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The Week.

Though California gardens yield flowers for every day in the year, there are seasons of especial activity in bloom, and we are now enjoying such a period. The gardens are acres of buds and blossoms. Trains and boats approaching the city are fragrant and beautiful with flowers in buttonhole and corsage, flowers in handfuls and basketfuls — flowers by the bunch, flowers by the bushel. It is not a bad idea which some one has proposed that every town in the State hold a floral fair, and every local newspaper give a full report of it, in the hope that the outside world may begin to realize how great are our resources of bloom. This is a project for the future. Meantime Los Angeles is making a grand display during this, the second week of her floral festival. Oakland has gathered a collection this week which wins much praise. Santa Barbara, San Jose and Santa Cruz will all follow, and if other places are prompted to act this season, by all means let it be done. We hope to find in next week's RURAL space for accounts of the Los Angeles and Oakland exhibitions.

The week has been blessed with new showers. North and south the refreshing has come and everywhere has it been enjoyed. The State and the people smile with confidence of great possessions, as greeting is extended to the thousands of strangers now within our borders.

The Nation's Grog Bill.

We once heard a reformed inebriate, who had become an active temperance worker, say that he had drank liquor enough to float a good-sized ship. Of course, the remark was intended to be taken with considerable abatement, but the statement could hardly be regarded as a hyperbole, that the aggregate amount of intoxicants consumed by the people of the United States the last 25 years would make a lake big enough to hold and float our navy.

In the quarterly report of the chief of the Bureau of Statistics, the consumption of distilled and malt liquors and wines, and estimates made upon the best recognized authority, are dwelt upon at considerable length. In round numbers the consumption of distilled spirits, domestic and imported in this country, is shown to have increased from 43,000,000 gallons in 1840 to 72,000,000 in 1886; of wines, from 4,800,000 to 22,000,000, and of malt liquors from 22,000,000 to 642,000,000. An elaborate statement made by F. N. Barrett, editor of the New York *Grocer*, by request of the chief of the Bureau, is given in the report, which among many other things discloses the fact that the present average expenditure in this country per annum for malt and spirituous liquors at retail is $700,000,000. The drinking population is estimated to be, in 1886, 14,954,417, making the average expenditure per capita $451.90. From the known conservatism of the *Grocer* on the temperance question, these figures may be regarded as more than likely a little under what a rigorous arithmetic would make.

But this is only the direct expenditure, and does not represent the cost of crime, pauperism, disease and insanity which this consumption of liquor annually entails upon the people of this country.

And yet what are all these vast statistics in comparison to the ghastly wrecks strewn along the shore of this gulf of fire? Take but one item alone from the mighty census of woe and misery. Sixty thousand lives are yearly destroyed in the nation from the use of strong drink, 100,000 men and women are sent to prison, and 200,000 children bequeathed to the poorhouses and charitable institutions. Suppose a bell could be made large enough and swing high enough to be heard over all this land, and it could be tolled at the death of each drunkard, its mournful dirge would ring in our ears, day and night, the year round. Its sepulchral tones might arouse the whole community to a realization of its responsibility for so many untimely and frightful deaths. It might cause every one to pause and ask the question whether he had any personal agency in this horrible work of blasting the hopes and lives of so many of our fellow-creatures. But no such bell tolls its mournful requiem upon the air, and the storm of fire sweeps on, filling brothels and bridewells, State prisons and State lunatic asylums, or breaks out ever and anon in the maniac yell of mobs, murder, robbery, arson—all sorts of crimes, vice and mischief.

INTERSTATE COMMERCE.—Nothing startling has been disclosed during the week in the progress of the Interstate Commerce law. There is much discussion, but no definite results stated yet. Perhaps another week will tell more. The situation of the wool-shippers has been simplified by the offer of the Pacific Mail in making a rate of $1.50 per hundred pounds, via Panama to New York, on baled wool. No response has been received by the wool committee to their telegram addressed to the Interstate Commission.

DEATH OF UNIVERSITY REGENTS.—Following close upon the death of Joseph W. Winans comes the summons to Prof. William Ashburner, who died on Tuesday night of this week. These gentlemen have rendered long and faithful service as regents of the State University and have been otherwise prominent and estimable citizens. Governor Bartlett has appointed Albert Miller, of Oakland, to complete the unexpired term of Regent Winans.

The Wheat Gamble.

We do not profess to be able to see through all the schemes and designs underlying the present gamble in wheat which force prices far above a figure which legitimate conditions seem to demand, but we are sure that the experience through which the market is passing is likely to work evil. To bull the market now, when there is little to sell by the growers, will be to invite reaction and demoralization later on when the new crop comes in. Those who have held wheat and take advantage of present ruling rates to unload will do well, and the existing plan of loans on wheat has probably encouraged some to hold on and thus be benefited; but the effect in the aggregate will be, we fear, a disheartened market and a strong bear movement when the new wheat is pressing forward for sale. We have always claimed that grain gambling, that is, manipulating values without any reference whatever to demand and supply, present and prospective, which are the legitimate factors in market prices, is an evil both to producers and consumers. We are glad that public sentiment is growing against it and that some progress is being made in legislation to prohibit its worst features. Where can be the benefit in a movement which blocks the export of wheat and holds the ships with sails idly flapping in the harbor, when they should be driving full cargoes to distant ports? Who is advantaged when our millers are obliged to seek wheat at a distance, or in default of that are forced to shut down or operate on fractional time? The secret of success, when crops succeed each other with the regularity which characterizes them in this State, is in the free outward movement either as wheat or flour, so that our warehouses may be well cleared out of the old crop by the time the new wheat comes to tide-water. It is such movement which will give the best average success to all producers and to manufacturers and laborers. Whatever interferes with this is planned for some narrow advantage, though it may not be possible to fully descry it. It may be for a trap into which one lot of gamblers aim to lure another, or it may be for a snare for the market itself, and designed to work hardship to producers before the game is fully played out. It matters not which, the result is the same. Legitimate trade is demoralized, wise speculation is left in the lurch, the producers, consumers and conservative investors are all made gammon of. The whole business should be made impossible. It is outrageous to gamble with a people's food. It should be made criminal.

A FLORAL FAIR is to be held in San Jose, under the auspices of the Horticultural Hall Association, beginning May 4th. A long list of the ladies to whom tables and rose-wagons have been assigned is already published. A lady having charge of a wagon may select any pattern she chooses—wheelbarrow or baby-carriage, if she will—and adorn it to her taste; but only a single variety of rose is to be used in decorating any one vehicle. It is intended to have as many kinds of roses represented as possible, and that every evening there shall be a procession of little girls, each drawing one of the rose-wagons and dressed with roses to correspond.

SANTA BARBARA'S FLOWER SHOW did not come off at the time appointed. The high winds had injured many of the choicest roses; and so the managers thought it better to postpone the exhibition for a week or two, and allow the younger buds to come into blossom. Then, too, the occurrence of the Los Angeles festival at that time made it awkward for some who desired to attend both displays; and on that account the people were more willing to wait awhile.

PACIFIC RAILROAD COMMISSION.—The President has appointed as commissioners to investigate the affairs of the Pacific railways under the act passed by the last Congress, Robert T. Pattison, of Pennsylvania, E. Ellery Anderson, of New York, and David T. Littler, of Illinois. The commissioners met in Washington April 19th, and intend to begin their work at once.

MECHANICS' FAIR.—The Trustees of the Mechanics' Institute announce that the 22d Industrial Exposition will open at the pavilion Thursday, Sept. 1, and close Saturday evening, October 8.

Fruit Marketing at the East.

There have been during the week two meetings in Sacramento, in relation to this year's marketing of California fruit at the East. The Fruit Union directors met April 14th, the following being present: A. T. Hatch, John Markley, L. W. Buck, P. E. Platt, H. C. Morrell, G. D. Kellogg, Webster Treat, H. Weinstock, and H. W. Meek. President Hatch stated that it would be impossible for him to undertake the Eastern business of the Union, and R. B. Blowers, of Woodland, was chosen Eastern manager. Mr. Blowers has accepted the trust, and will start eastward at once. In our opinion the selection of Mr. Blowers is wise. He has had much experience in shipping fruit to the East and selling it there. He knows how fruit ought to be packed, and our shippers will feel confident in his expertness, and in his honor and honesty that their interest will be well looked after by him.

The manager was instructed to appoint agents immediately at Omaha, Kansas City, St. Louis, St. Paul, Boston, New York, Philadelphia and Baltimore. It was left to his discretion whether to open agencies in Cincinnati, Louisville, Buffalo, Cleveland, Indianapolis, Pittsburg and New Orleans. No agents are to be appointed west of the Missouri river, excepting in the cities named.

It was decided to adopt the auction plan of disposing of fruits for New York, and if successful there, then to adopt the plan for Philadelphia, Boston and Baltimore. The Eastern manager was instructed to be in New York on the arrival of the first shipment of fruit, and to report to the directors the success of the auctions.

On April 15th there was a meeting of the California Fruit-Growers' Association in Sacramento, at which the president, R. D. Stephens, made a long address reviewing the situation. Mr. Stephens read many replies to circulars he had sent out to the fruit-growers, asking their opinion as to whether it is preferable to send their fruit East or sell it at home. About 90 per cent of the answers favored selling it at home. A long discussion took place as to whether the organization should continue in existence. It was decided in the affirmative, and the old Board of Directors was re-elected; but it was thought advisable not to take any action as an organization at present to antagonize the plans mapped out by the Fruit Union for the present season.

Sericulture.

The State Board of Silk Culture held its usual monthly meeting last Saturday. Present, Messrs. Trumbo, Carter, McDonald, Sellers, and the Secretary, Mrs. Rienzi.

It appears that the demand for mulberry trees has outrun the supply; but as fast as cuttings can be got, orders will be filled. The silkworms lately hatched are lively and hungry.

The Executive Committee have issued a card cordially inviting every one interested in the development of this industry to visit the rooms of the board, where can be seen all the different operations, from the hatching of the egg, feeding of the worms and spinning of cocoons by the silkworm, to the reeling of the silk ready for the manufacturer.

The office and filature are open from 10 to 4 o'clock, at No. 21 Montgomery avenue.

Since the above meeting, it is announced that half a million more unhatched eggs have been received by the board from Italy, and will be distributed free to all who desire to raise cocoons, provided the applicants have mulberry leaves enough to feed them on. Inquiries from New York merchants have also been received as to the amount of stock silk on hand. The samples sent East are reported by the inquirers equal to any imported silk.

WILL THERE BE TOO MUCH FRUIT?—The State Horticultural Society at its next meeting (which will be held on Friday, April 29, at 1 o'clock, at Irving hall, 139 Post street, S. F.) will discuss the question, "Will there be overproduction of fruit in California?" W. T. Blackwood was requested to open the discussion on the affirmative, and A. T. Hatch on the negative. This is a question of much importance and all possible light should be thrown upon it. All fruit-growers are invited to attend the meeting.

Semi-Annual State Convention of Fruit-Growers.

Address by Prof. C. V. Riley.

[Editorial Correspondence.]

The fruit-growers of California met in annual convention in Riverside on Monday, April 11th, under the auspices of the State Board of Horticulture. This board is composed of nine members, two of whom are appointed from the State at large and the remainder from districts. It is now constituted as follows:

Elwood Cooper, president, Santa Barbara; A. Block, Santa Clara; Gen. M. G. Vallejo, Sonoma; Dr. Edwin Kimball, Haywards; W. M. Boggs, Napa; A. S. Chapman, San Gabriel; H. C. Wilson, Red Bluff; W. M. Williams, Fresno; N. R. Peck, Placer county.

The board was originally organized under the old viticultural law, under which it acted four years. In 1883 a new law went into effect, under which it was reorganized as an independent commission. Its objects are the promotion of horticulture in the State, its members being appointed because of special qualifications for the work, which they do gratuitously. Although the board disburses considerable of the State money, they themselves receive only sufficient to cover actual expenses.

J. Chester, of the *California Patron*, was appointed as acting secretary, the regular official, Col. A. H. Webb, having recently deceased. The board has a chief executive officer under the title, "State Inspector of Insect Pests." This office is now filled by W. G. Klee, of Berkeley, who is present at the convention.

Among the distinguished gentlemen present at the meeting of the board is C. V. Riley, U. S. entomologist, from the Department of Agriculture, Washington, D. C.

The permanent office of the board is at 40 California street, San Francisco, where the secretary is always present to furnish information and documents for the use of the horticulturists of the State. The board is now having published some very valuable matter for gratuitous circulation among the fruit-growers. It will include, among other plates, four colored plates of scale insects. These publications will contain proceedings of the board, inspector of fruit pests, report, etc. Owing to the failure of the Legislature to make necessary appropriations, the publication of this matter is delayed. It is the purpose of the board, however, to print the important portion of it for immediate distribution. The proceedings of the present meeting are also being carefully taken down by a short-hand reporter, and will, in due time, be published in full, with all the essays and debates.

Under the present law the board is required to hold two sessions each year, one being in the fall in the northern or central portion of the State at a season suited to a display of deciduous fruits, and the other at the south end of the State, at a season most desirable for the examination and study of the citrus fruits.

The convention assembled in the Baptist church at 11 o'clock, with the president in the chair, and, in order to give those who would come on the 12 o'clock train an opportunity to be present at the opening, the convention adjourned until 2 P. M.

Afternoon Session.

The convention met in the afternoon at the Pavilion. It being customary to appoint, from the fruit-growers at large, two honorary vice-presidents at each meeting, L. M. Holt, of the Riverside *Daily Press*, and S. C. Evans, of Riverside, were elected to fill those positions. Mr. B. M. LeLong, of Los Angeles, was invited to act as assistant secretary.

The organization having been fully effected, Mr. Cooper, the president, gave a brief statement of the work of the board since its organization. He referred to its previous sessions, and stated that from the expressed wish of prominent fruit-growers of Los Angeles that its next session be held either in San Diego, Santa Barbara or Riverside. He had accordingly, in the hope that the well-known interests of the people of this section in horticulture would lead to a better attendance than was sometimes obtained, arranged for the meeting here. The previous session had brought out valuable information, which was being printed, and would be distributed. It was necessary that the mass of new-comers to this portion of the State should be furnished facts which might save them from making expensive blunders. The insect pests are not being overcome as could be wished. He referred to the presence of Prof. Riley, one of the most prominent entomologists in the country, and stated that he would give us some valuable information at a subsequent session. He urged co-operation among fruit-growers, and hoped an effort would be made to modify the effect of the Interstate Commerce bill.

The president then introduced Mr. H. J. Rudisill, a prominent horticulturist of Riverside, who gave an eloquent and very appropriate address of welcome.

At the conclusion of this address the secretary read a well-written and valuable essay prepared by Mrs. H. H. Berger, of San Francisco, on Japanese fruits.

At the conclusion of the essay Mr. Wilcox, of Santa Clara, suggested that the convention consider the points in Mrs. Berger's paper, and referred to the high character of our fruits exhibited at New Orleans, making special mention of the persimmons there exhibited. They could be grown successfully over the larger portion of the State, and were really a very fine fruit.

Mr. Klee spoke of the fact that most of the Japanese persimmons were grafted on inferior stock, but that we have a better stock upon which to graft in the European persimmon, and that with it we may expect an improvement in the fruit. He had an idea that while the persimmon would grow well in all sections, it would do better in the more humid portions of the State. He suggested that it would be well to experiment with the Japanese oranges in Riverside. Didn't think they would grow of large size, but had excellent points in their favor.

Mr. Klee said the loquat could be grafted on the quince, but did well on its own root. Said the Chinese had better varieties than those with which we are familiar. This fruit could be dried like the fig.

Mr. Starr, of Lugonia, said the persimmon did excellently in the sandy soil of his neighborhood, bearing freely and regularly.

Mr. Holmes thought experience in Riverside had demonstrated the correctness of Mr. Klee's theory, that a more humid climate was preferable for this fruit, although it fruited satisfactorily here.

On motion of Mr. Peck, it was decided to have a social meeting on Tuesday evening, to give opportunity to meet the Riverside people.

An adjournment was made until Tuesday morning, thus giving the members and visiting fruit-growers an opportunity to accept an invitation to take a ride down the avenue, and to visit other portions of Riverside during the afternoon.

Tuesday's Session.

The convention assembled at 9:30 A. M. The first business on the program was the address of Prof. Riley on scale insects. He was introduced by President Cooper in a very off-hand, but happy and appropriate, manner, alluding at some length to the efficient manner in which the professor had conducted the labors of his office, in studying the habits of some of the most destructive insects which have afflicted the farmer and horticulturist, and in devising ways and means to get rid of them.

The professor, on taking the floor, very modestly disclaimed the eulogy which the president had pronounced and proceeded at once with his address, which was full of valuable information, and which, though quite lengthy, was listened to with the most marked attention throughout.

ADDRESS OF PROF. C. V. RILEY.

Mr. President, Ladies and Gentlemen: When I left Washington, it was with the intention of resisting all invitations to speak, as I have been suffering for some time from the effects of overwork and desired quietly to pursue some investigations in relation to insects injuriously affecting fruit culture here and at the same time get rest from exacting office duties. But it was impossible to refuse the urgent appeal of your president, Ellwood Cooper, to address this meeting. I have, however, no formal address to offer you, and simply expressed my willingness to take part in your proceedings and discussions.

The subject announced, namely, "Entomology in its Relation to Horticulture," is one chosen by some enterprising member of your board, and is altogether too comprehensive to be dealt with without more time and more thought than I have had at command. I shall endeavor to confine my remarks to scale-insects, and particularly to what you know as the White scale. This is the insect which undoubtedly most concerns you just now, and I have an elaborate article upon it now going through the press at Washington. This, however, would require two or three hours to read, and I will pass over the purely historical and entomological details and touch only upon such points as will probably interest you.

Nomenclature.

There is no doubt whatever about this insect being the *Icerya purchasi*, of Maskell, and its scientific name is, therefore, fixed. In reference to its popular name, there are several in use, and as between "Australian bug," "White Scale" and "Cottony cushion scale" there is very little choice, and it is, as a rule, useless to endeavor to change popular names that have once come into vogue. So far as they can be changed, however, and with a view of inducing unanimity in the adoption of a single name, it were better to reject all these names and call it the Fluted scale. There are many Australian bugs and many White scales, some of which, belonging to the genus Pulvinaria, equally well deserve that cognomen. Cottony cushion scale is both too long to be acceptable and would likewise apply to the species of this last genus, whereas no scale-insect injurious to fruit or other trees, at present existing in this country, secretes its white, waxy matter in such a perfectly fluted mass as this. The generic term, Icerya, if once popularized like Geranium, Phylloxera, etc., has the advantage of brevity and still greater accuracy.

Geographical Distribution.

Historical evidence all points to Australasia as the original home of this insect, and its introduction from Australia to New Zealand, Cape Town, South Africa and California. Nothing was known or published upon the species prior to the seventh decade of this century, and it seems to have first attracted attention almost simultaneously in Australasia, Africa, and America. The evidence as to whether it is indigenous to Australia or New Zealand, or to both, is not yet satisfactory. The first personal knowledge which I had of it was from specimens sent to me in 1872 by Mr. R. H. Stretch, then living in San Francisco, and all the evidence points to its introduction into California by the late George Gordon, of Menlo Park, about the year 1868, and probably from Australia, on *Acacia latifolia*.

More light is, however, yet needed on this point, as in a recent letter received from Baron von Muller, of Victoria, he claims that it could not have been imported on Acacia into this State, as all the Acacias in the State have been grown from seed. This is a matter upon which I should like to have definite information from members of this body, if such information is extant.

It is at present widely distributed in the State, and a very full account of its distribution kindly furnished to me by Mr. Matthew Cooke, shows that there are some ten infested districts, namely: six in the counties of Marin, San Mateo, Santa Clara, Sacramento, Sonoma and Napa, and four in the counties of Santa Barbara and Los Angeles. I find that it has also obtained a foothold in a few isolated places around San Diego, from which it may yet be stamped out.

Food Plants.

A very long list of plants might be enumerated upon which this insect is either found accidentally or upon which it can live more or less successfully. But the list of plants, especially of trees important to us for their products, which are seriously affected by it, is comparatively limited, and will include the Acacias, Lime, Lemon, Orange, Quince, Pomegranate and Walnut. Some few other trees might be added, and it is particularly partial to the Rose and the Nettle; but it is doubtful whether the species could permanently thrive and multiply to an injurious extent on many other trees than those mentioned.

Characteristics of the Insect.

The genus Icerya was founded by Signoret, a French entomologist, in 1875, being based upon the single species, *Icerya sacchari* (Guérin), which lives on sugar-cane in the island of Bourbon. This species and the one we are now dealing with are the only two species of the genus, and the diagnosis as given by Signoret, and subsequently elaborated by Maskell, of New Zealand, is incomplete and does not include the characteristics of the male.

In the report already alluded to, I have given a very full characterization of the species in all conditions and stages, but the only facts that I need draw attention to on this occasion are, first, that the female undergoes three molts and the male two; *i. e.*, each has one more stage than has hitherto been recognized by entomologists and observers; secondly, that it differs from all other members of its family (Coccidæ), in its extended powers of locomotion in most of its stages; in its extreme hardiness or power of surviving for a given period without food, and in its polyphagous habit, or the ease with which it accommodates itself to so great a variety of plants. These are the three characteristics which most concern you as fruit-growers, and which make it one of the most difficult species to contend with.

Mode of Spread and Distribution.

All young scale-insects are quite active when they first hatch, and most of them at this time are extremely small, and when very thick upon a tree, instinctively, or at least very easily, drop from the terminal twigs and branches. Their specific gravity at this time is so light that they are easily wafted with the wind in their descent. This general truth applies with equal force to the Icerya which is readily carried from tree to tree and from orchard to orchard by the agency of wind, by running water, or by birds or other insects. Another local means of transport not to be ignored, is upon the clothing of persons engaged in cultivating, upon packages, and upon all implements used, whether in cultivating or harvesting the crop. This particular species also has quite a habit of crawling over the ground, and its local spread is very materially enhanced thereby.

It is carried long distances, however, chiefly by high winds, birds, and commerce, and its introduction from one continent to another has undoubtedly been effected by the latter method upon young trees or cuttings.

Natural Enemies.

No bird is known yet to attack this insect in California, and but one is mentioned even in Australia, and that upon very slight evidence. Of predacious insects, a species of Lace-wing, (genus Chrysopa) has been observed to feed upon it, as also the Ambiguous ladybird (*Hippodamia ambigua*). The larva of a little moth, which I have described as *Blastobasis iceryœlla*, is also known to feed upon the eggs. Among the Heteroptera, or true Bugs, quite a number have been found upon the trees infested with the insect, but none have yet been noticed to feed upon it. The most important of its insect enemies are a species of earwig not yet identified, and a number of mites not yet carefully studied.

Of true parasites, none have hitherto been reported, whether in Australia, Africa, or America, but I am glad to announce that two specimens of a minute Chalcid-fly have been bred by me from specimens around Los Angeles and will be described by Mr. Howard, who makes a specialty of the family, under the name of *Isodromus iceryæ*. The genus is new to our fauna, and the probability is that this little friend was introduced from Australia with its host.

Preventive Measures.

Most of the members of this society are doubtless aware that for some four years I was conducting a series of very careful experiments with a view of controlling the scale-insects and other insect pests that injuriously affect the orange trees in Florida. This work was carried on through the instrumentality of Mr. H. G. Hubbard, and the Department of Agriculture has published a special report prepared by him upon this subject. All that is said in that report in reference to the value of preventive measures against the scale-insects of that part of our country will apply with equal force here in California.

The value of cleanliness; of thorough cultivation; of pruning judiciously so as to get rid of all dead wood, open the top of the trees to the light and to the sun, and facilitate the spraying of the trees, need scarcely be emphasized. There may be some difference of opinion as to the value of pruning, while different kinds of pruning, or no pruning, will have their advocates here as they have had elsewhere. The Orange makes, naturally, a very dense head, and in the moist climate of Florida, where they have a much larger average of shade, cloudiness, and moisture than you have here, judicious pruning has all the advantages stated, and whether needed or not in California for the purpose of more fully ripening and maturing the fruit, I am quite satisfied from what I have seen that it is just as much needed to facilitate proper spraying of the trees and to prevent overproduction.

Some years ago, and prior to the discoveries resulting from the investigation in Florida just referred to, the inadequacy of most washes caused many of the orange-growers of that State to cut back their trees most rigorously, leaving little more than the main trunk, in the hope of thus being able to kill out or exterminate the scale-insects that troubled them there. I find that many of your orange-growers are going through the same sad experience and resorting to the same sad means. It is a pity to find men thus re-enacting a farce which has been proved in another part of the country to be quite unnecessary. Such wholesale lopping of limbs requires much labor, and even with the greatest care, which is seldom bestowed upon it, the tree receives an immediate and material injury, and is destined to suffer still more in years to come. Moreover, this radical means often proves futile so far as the results aimed at are concerned, and unless the greatest precaution is taken to properly cover and heal the stumps and to absolutely kill all the insects upon the remaining trunk, as well as those upon the severed branches and the ground, the new growth will soon be as effectually infested as was the old. Many of your own growers have thus lopped or are now cutting back their trees in a very blind way and without the precautions here indicated, on the popular but erroneous supposition that without such precautions they will get rid of the troublesome scales.

The value of shelters in the form of surrounding trees and windbreaks is, I am sure, just as appreciable here, if not so much to protect from frost and winds, fully as much to protect from infection from scale-insects. A row, or tall hedge of coniferous trees, such as your cypress, upon which the scale-insects will not thrive—or, better still, a belt of the same—will

often serve as an effectual screen to prevent the young insects from being carried from an infested to an uninfested grove.

Preventing its Introduction.—But, before passing this subject of preventive measures, I must not omit the importance of any effort looking to preventing the introduction of this insect from one section of the country, or from one neighborhood to another. No insects so easily bear transit as these scale-insects, and it is eminently true of this particular Icerya.

All the worst species from which they suffer in Florida have been introduced from abroad. Their Long scale (*Mytilaspis gloverii*) was introduced about the year 1835. Their Chaff scale (*Parlatoria pergandii*), from Bermuda, some 20 years later, and their Red scale (*Aspidiotus ficus*), from Havana in 1879.

We have already seen how this Icerya was introduced into your State from Australia, and the next worst species which you have to deal with, namely, your Red scale (*Aspidiotus aurantii*), was likewise introduced, so far as the evidence goes, from the same country.

To enumerate merely the different species of insects destructive of your fruit interests that have been introduced from other parts of the country or from other parts of the world would consume too much time, and I cannot attempt to do so. But I would lay stress upon this conviction which has forced itself upon me after a pretty extended experience in all parts of the country, namely, that however much you should encourage all co-operative efforts to prevent such transferring and spread of injurious pests, they cannot be fully exterminated when once they obtain a foothold, and in the end each individual fruit grower must depend on his own efforts.

Remedies.

It follows without saying that what we should seek in any direct remedy is, first, perfect killing power, or, to be more exact, perfect insecticide quality associated with harmlessness to the tree; second, reasonable cheapness.

Different Washes.—I will not detain you with any general remarks on the subject of insecticides, because it has received full attention in my official reports. Dry insecticides have been found, in the main, unavailable here, and we must depend upon washes or materials in solution that may be sprayed upon the tree. Here, again, I would remind you of the careful and extended experiments made by Mr. Hubbard in the orange groves of Florida with a view of solving the important question as to what is, on the whole, the most satisfactory liquid application, cheapness and efficiency considered. Carbolic acid, creosote, sulphurated lime, silicate of soda, sulphuric acid, sulphurate of iron, bisulphide of carbon, and many other materials have been thoroughly tried, as well as whale-oil soap, potash and soda lye and their various combinations; but in the end nothing proved equal to emulsified kerosene. Whale-oil soap is an excellent wash for destroying some insects upon some plants, but it fails to kill the eggs of our scale-insects, so that, however good it may be for scrubbing the trunks and branches of a tree, I cannot conscientiously urge it as, on the whole, satisfactory, particularly as it is known to stain the fruit, and because of the many different grades, varying in their effect and in their value, which are upon the market. Potash and soda lye injure the tree more than kerosene does and do not destroy the insects as well, admirable though they are as washes in weaker solution for some other purposes. The action of sulphurated lime (flowers of sulphur boiled in milk of lime) is very similar to that of caustic potash.

Notwithstanding the kerosene emulsions, in proper proportions, have proved so satisfactory against the scale-insects of the Orange in Florida, they have, as a rule, failed to win the good opinion of the orange-growers in California. I have always believed the want of success in this State with the kerosene emulsions was due to imperfect preparation of them, or to imperfect application. I was inclined to give some credence to the theory advanced by my old-time friend, Prof. E. W. Hilgard, who is so keenly alive to everything that interests you, and whose services have been so invaluable to the agriculture and horticulture of the State, namely, that the dryness of the atmosphere in California induced a more rapid evaporation of the kerosene, which may partly account for the difference in experience between the Atlantic and Pacific. For these reasons I had long desired to make a series of experiments in California, and finally, last year, did have such a series carried on by Messrs D. W. Coquillett and Albert Koeble. It were difficult to find in the whole State two gentlemen combining in the one instance more care and reliable entomological capability, and in the other more industry, earnestness and enthusiasm, and this I say without desire to flatter, but as evidence that their experiments, so far as they went, were trustworthy—in fact, I may say, the most careful and thorough that have hitherto been made. These experiments extended over a period of three months in the spring and three months in the autumn, and the detailed reports which these gentlemen have made will be published in connection with my forthcoming annual report. They show that the kerosene emulsions must still be placed at the head of the list of washes, not only for ordinary scale-insects, but for this Icerya or Fluted scale. Among the different substances thoroughly experimented with were caustic potash, caustic soda, hard and soft soaps, tobacco, sheep dip, tobacco soap, whale-oil soap, vinegar, Paris green, resin soaps and compounds, and so on. It is impossible to give even a digest of the very many experiments, and the varying results obtained with the different washes. It suffices to say that the kerosene emulsion diluted with from eight to ten parts of water was found to kill all the eggs as well as the old females, and that, even when used still stronger, it left the tree uninjured. Mr. Coquillett reports with reference to the much-praised caustic soda, that it has no effect on the eggs of this scale even when applied so strong as to burn the bark and kill all the leaves. Similarly, the whale-oil soap does not kill the eggs directly, though it may harden the egg-mass so as to prevent the hatching of a large proportion of young larvæ.

Resin Soaps.—Mr. Koeble, experimenting through August, September and October, found similarly good results from the kerosene emulsion, but that the crude petroleum, although much cheaper, was more apt to injure the tree. His attention was, however, directed mainly to the preparation of resinous soaps and compounds on account of their greater cheapness. He succeeded in making a number of these mixtures which, when properly diluted, need not cost more than one-half to one cent per gallon and which produced very satisfactory results, killing the insects or either penetrating or hardening the egg masses so as to prevent the hatching of the young. One of the most satisfactory methods of making a resin soap is to dissolve one pound caustic soda in 1½ gallons water to produce the lye; then dissolve 2 pounds resin and one pound tallow by moderate heat, stirring in gradually during the cooking one quart of the lye, and then adding water until you have about 22 pints of a brown and thick soap. This will make 44 gallons of wash, costing less than one-half cent per gallon.

There is some slight difference between the experience of Mr. Koeble and Mr. Coquillett as to the value of soap washes, and the greater success which the former had with them as compared with the latter was probably due to the fact that his experiments were made during the dry or rainless season. The great point of interest, however, in these experiments is that they confirm in a remarkable manner the experience had in Florida. And I think you will agree with me that they justify the opinions which I have expressed in official writings. Such observations as I have been personally able to make during my brief sojourn among you have greatly served to confirm me in those opinions, and while the resin soaps experimented with by Mr. Koeble are a valuable addition to our insecticides for the scale-insects, I find the experience in Florida repeated here, and all the more satisfactory washes have kerosene as their effective basis. There has been, however, a very great waste in applying it, and it is in this direction that reform is most needed.

The fact cannot be too strongly urged that in the case of this Icerya, as of most other orange-feeding scale-insects, it is practically impossible, with the most careful and thorough spraying, to reach every one of the myriads on the tree. Some few, protected by leaf-curl, bark-scale or other shelter, will escape, and with their fecund progeny soon spread over the tree again if left unmolested. Hence, two or three sprayings, not too far apart, are far preferable to a single treatment, however thorough. And this is particularly true of the pest we are considering, which lives on so many other plants, and which in badly infested groves is crawling over the ground between the trees.

Value of Kerosene Emulsion.—It is now the custom to use the time of a team and say two men for 15 or 20 minutes or more and 30, 40 or 50 gallons of liquid on a single medium sized tree. In this way the tree is sprayed until the fluid runs to the ground and is lost in great quantities, some growers using sheet-iron contrivances around the base of the tree in order to save and re-use the otherwise wasted material. Now, however much this drenching may be necessary, or has come into vogue, in the use of soap, and potash and soda washes, it is all wrong so far as the oil emulsion is concerned, as the oil rising to the surface falls from the leaves and wastes more, proportionately, than the water.

The essence of successful spraying of the kerosene emulsion consists in forcing it as a mist from the heart of the tree first and then from the periphery, if the tree is large, allowing as little as possible to fall to the ground, and permitting each spray particle to adhere. It is best done in the cool of the day, and, where possible, in calm and cloudy weather. There has been no morning since my sojourn among you that I have seen the sun rise in a clear sky. Cloudiness has prevailed for some hours after dawn, and in this regard you are favored, as this would be the time of day, of all others, to spray. Proper spraying should be done with one fifth of the time and material now expended, or even one-tenth of that which I have seen wasted in some cases, so that three sprayings at proper intervals of from four to six weeks in spring and summer will be cheaper and far more satisfactory than one as ordinarily conducted. In this particular, neither Mr. Coquillett's nor Mr. Koeble's experiments were entirely satisfactory, as I was too far from the field to permit of the detailed direction necessary.

I cannot emphasize the fact too strongly that it is practically impossible to eradicate, by any system, every individual insect and egg upon a tree in one spraying. It is almost futile to attempt to do so.

Improved Wash Recommended.—Let us now see whether the kerosene emulsion, pure and simple, can be improved upon by the addition of any other material. It is plain to be seen from the circulars and documents, both official and unofficial, that have been published in the State and distributed among you, that, in many cases, the proper use of kerosene has been entirely misunderstood. Having already seen that it destroys the eggs of Icerya only when used in the ratio of one part of kerosene to about seven or eight of the diluent, it follows that any lesser amount will give less satisfactory results. Moreover, it is extremely important to prepare the emulsion properly. This has usually been done by the use of milk or of soap, because they are cheap and satisfactory. Raw eggs and sugar and other mucilaginous substances may be used. Experience has shown that the best proportions are two parts of the oil to one of the emulsifying agent, whether milk or soap, *i. e.*, for instance, two gallons of the oil to one of milk or one of the soap-water made by dissolving half a pound of soap in one gallon of water. So long as these proportions are maintained, a large quantity can be emulsified as rapidly as a smaller quantity, and violent agitation through a spray nozzle at a temperature of 100°, and as frequently described in my reports, gives the quickest results.

Take, for instance, the mixture recommended by your County Board of Horticultural Commissioners. You will find that with the soap and wood-potash there are 25 parts of the diluent to one of the kerosene recommended, and there is every reason to believe that the kerosene in this wash might just as well be thrown away, and that it adds comparatively little, if any, to the efficiency of the wash, at least for the Fluted scale. If, on the contrary, we could add to the ordinary emulsion any materials that would give greater adhesiveness, such an addition will prove an advantage. Such we get, to some extent, in the soap emulsion, for which reason it has a slight advantage over the milk emulsion. And after examining the trees treated with resin washes, I am strongly inclined to recommend that these resin washes be used as the diluent to the soap emulsion made after the usual formula. Something similar was tried some years ago by one of my agents in Florida, Mr. Joseph Voyle, who used fir balsam in place of resin, in connection with the oil emulsion, and obtained most satisfactory results. A certain amount of dextrine, or, yet better, flour, if mixed with the wash, would prove valuable for the same purpose.

Again, if permanency can be given to the effect of a wash so that the few insects escaping the first application, or which would hatch out thereafter, would succumb, such addition would be invaluable; and though the arsenites are, as a rule, effective chiefly against mandibulate insects, or those which masticate their food (in other words, although the action of these poisons is mainly through the stomach), yet I happen to know from experience that they have also a direct effect by contact. Therefore I recommend, with considerable confidence, that in this dilute kerosene emulsion there be added a small proportion of arsenious acid, say from 2 to 3 ounces to every 50 gallons of wash. This arsenious acid may be prepared and added in various ways. Probably one of the simplest would be to take half a pound of arsenic to half a pound of sal-soda, boil this in one-half gallon of water until the arsenic is dissolved, and mix this with about 100 gallons of the diluted emulsion. A quarter of a pound of London purple to 50 gallons of the diluted emulsion, or even a still greater amount, would, perhaps, serve the same purpose and be less likely to injure the tree.

I am aware of the danger of making recommendations that have not yet had thorough trial, but I have already made a few limited experiments (and intend making more) which would seem to justify these, and at all events if care be taken not to use too large a quantity of the arsenic no harm will result from it, either to the tree or to those who use the fruit.

Kerosene is not so cheap as the resin compounds, nor as some of the soap and lye washes, but it has this great advantage, that it can be used in much less quantity. It permits a great reduction in the amount of material and the cost of labor. At the rate of 20 cents per gallon wholesale, the effective wash will cost 2½ cents per gallon, and from one to two gallons are sufficient, if properly sprayed, on a medium-sized tree.

Spraying Apparatus.

Just as there is a great wastage of time and money in drenching a tree with kerosene emulsion, so the spraying nozzle most in vogue with you is also somewhat wasteful. That most commonly used is the San Jose nozzle, in which the water is simply forced through a terminal slit in a narrow and rather copious jet of spray. It is the force and directness of the spray which gives this nozzle its popularity under the mistaken spraying notions that prevail, and to this I should probably add the fact that, being a patented contrivance, it is well advertised, and on the market, for somehow or other, people rarely value a gift as much as what they buy, and too often rate value by price. The Cyclone nozzle, or Riley atomizer, as it is called in France, which has proved so satisfactory in the East as well as to my agents at Los Angeles, has scarcely had such trial among you, so far as I have been able to see, as to properly impress its advantages. That originally made and sent out by the late G. N. Milco, of Stockton, was patterned in size and form after one which I sent him, and which was designed to spray from near the surface of the ground.

What I would use for the orange grove, or for trees, is a bunch of nozzles of larger capacity, the size of the outlet to be regulated by the force of the pump. I have witnessed all forms and sorts of spraying devices, and while there are many that are ingenious and serve a useful purpose, I can safely say that there is no form which will produce a spray so easily regulated and altered to suit different conditions, and which is so simple and so easily adjustable to all purposes. Since among you I have endeavored to get a bunch nozzle, such as I would recommend, made at Los Angeles, and the difficulties I have had in getting it made properly illustrate, perhaps, some of the reasons why this nozzle has not become more popular on this coast. All the parts must be well fitted, the inlet must be tangential, and the outlet so made as not to overcome the whirling or clyconic action of the water. The breadth, directness, force, or fineness of the spray are all regulated by the form and size of the outlet, and if a thick cap be used it must be gradually counter-sunk on both sides until the thickness at the outlet does not exceed one-sixteenth of an inch or less. A bunch of four nozzles, one arranged so as to have the outlet distal or from the end of the piping, which may be ordinary gas-pipe, and the other three in bunches, so that the outlet is at nearly right angles, each about an inch below the other, and so placed that they are one-third the circumference of the main pipe apart, will be found, I think, most serviceable in your groves. Such a bunch working from the center of an ordinary sized tree will envelop it in a perfect ball of mist.

For tall trees a more forcible stream might be had from the end by substituting an ordinary jet with a wire extension. This is a recent device first brought to my attention by Mr. A. H. Nixon, of Dayton, Ohio, and for sending a fine spray for a great distance it has advantages. It is simply an extension screwed over an ordinary nipple, the end of the tube being covered with wire netting which breaks up the liquid forced through it. The brass nipple should be about one inch in length, the perforation very true and varying in diameter according to the force of spray desired. The nipple screws on the discharge pipe, and upon a shoulder threaded for the purpose is screwed a chamber or tube about one inch in diameter and three inches long, to the outer end of which is soldered a piece of wire gauze varying in size of mesh to suit the force of pump and the size of aperture in nipple.

Finally, if a service of blind caps and several sets of cyclone nozzle caps of varying aperture are kept on hand, the spraying may be adjusted at will to condition of wind, size of tree, etc

Your worthy president has very well remarked that what we want is not generalization, but hard facts and experience presented in the simplest and briefest manner. If I have dealt somewhat with principles rather than with details, I shall look for your excuse in the fact that extended experience presents such a multiplicity of details as to warn me from entering into them.

Fumigation.

Fumigating trees will always have *cæteris paribus*, some disadvantage as compared with spraying. The mechanism is more cumbersome; the time required for treatment and the first cost in making preparation greater, and these facts will always give spraying the advantage with small proprietors and those who are dealing with young trees. Sulphur fumes have been tried, but they burn the leaves and injure the tree. Tobacco smoke and vapor fail to kill the eggs. Ammonia is excellent, but fails to kill all, though I have known the most beneficial results from the ammonia arising from sheep manure used as a fertilizer in apple orchards. Bi-sulphide of carbon has been tried and with great care in getting the right quantity, its vapor will kill the insects without killing the tree; but its application requires too much time and is fraught with more or less risk to man. This is equally true of cyanide of potassium and of other substances the vapors from which are known to be very deadly to insect life. It will be difficult, therefore, to find a mode of fumigating that will be harmless to the tree and deadly to the insects, and at the same time as rapidly and easily applied as a spray.

Many of you already know that Mr. Coquillett, in connection with Mr. Alex. Craw and Mr. Wolfskill, of Los Angeles, have for some time been conducting a series of experiments which lead them to believe that they have discovered a gas which possesses the requisite qualities. The trees which I have examined that have been treated with this gas, both there, at San Gabriel and at Orange, lead me to the conclusion that they are fully justified in this belief, and several ingenious contrivances have been perfected in Los Angeles county which give promise of great utility and feasibility. Whether the trees are left uninjured, it is perhaps premature to say. That they are affected is evident in some cases, and what the ultimate effect will be time alone will decide. Let us all hope that the promise of this gas will be abundantly fulfilled. Let me add, however, that even if it be found that no solitary insect or egg will escape treatment with this or any other gas, fumigation will yet no more fully exterminate or free the orchard than the proper spraying of the kerosene emulsion, but, for the reasons already stated, will have to be repeated,

(*Concluded on page 364.*)

"BUT FOR THE 'SMOKE BALL' OUR CHILD WOULD HAVE DIED!"

SAVE YOUR BABIES! A NECESSITY IN EVERY HOME!

READ THE EVIDENCE!

What Mr. and Mrs. Tennant Think of the Carbolic Smoke Ball.

"BUT FOR THE 'SMOKE BALL' OUR CHILD WOULD HAVE DIED."

San Jose, March 26, 1886.

Carbolic Smoke Ball Co.—Gentlemen: It is with great pleasure that we testify to the merits of your medicine, the "Smoke Ball." We purchased one of your Smoke Balls a short time ago, and used it with great success for colds in the head. Consider it the best remedy we ever had in our family. Not long since our little girl had a severe attack of membranous croup, and if it had not been for the "Smoke Ball" she would have died. The first application gave instant relief, and a few applications completely cured her. We consider the "Smoke Ball" a sure cure for croup. Gratefully yours,

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MRS. F. W. TENNANT.

No. 180 W. San Fernando street, San Jose.



READ THE EVIDENCE!

What Mr. Hammersley says of the "Carbolic Smoke Ball."

"I CONSIDER MYSELF ENTIRELY CURED."

San Jose, March 27, 1887.

Carbolic Smoke Ball Co.—Gentlemen: I have been troubled with catarrh and neuralgia a great many years and have tried a great many different remedies, and have been treated by several so-called specialists—fees from $40 upward, payable monthly in advance—but never obtained any permanent relief. I have also been troubled of late with deafness in the left ear, which had been gradually growing worse. Last January I was induced by a friend to try some of your free tests, and felt a relief after the third inhalation. On January 20th I purchased a "Smoke Ball," and I now consider myself entirely cured of neuralgia and catarrh, and now I can hear as well as any one. I will be happy to indorse the "Smoke Ball" to any person whom you may wish to refer to me. Yours very truly,

A. S. HAMMERSLEY,
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The **Only Absolute Cure for Catarrh, Neuralgia, Nervous Headaches, Catarrhal Deafness, Sore Throat, Inflamed Tonsils, Bronchitis, Granulated Lids, Weakness of the Optic Nerve, Diphtheria** and **Quinsy.** We have proved that the "CARBOLIC SMOKE BALL" and the "DEBELLATOR" will cure, by the numerous Home Testimonials published, and which we will be pleased to send to any address.

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THE COMPLETE TREATMENT includes the "Debellator" package, unequaled as a blood purifier, which must be used in Catarrh when there is a dropping of mucus into the throat, biliousness, or where the bowels are irregular or there are stomach or kidney disorders. It should be used in all cases of Catarrh, Asthma, Bronchitis, Hay Fever and Ulcerated Sore Throat. Price of the complete treatment, $5; "Smoke Ball," $3; "Debellator" package, $2. One complete treatment is generally sufficient.

MAIL ORDERS receive careful and prompt attention. State diseases or symptoms in writing, addressing MAIN OFFICE. Complete treatment mailed on receipt of price, $5, and four cents in stamps. "Smoke Ball," $3 (four cents in stamps). "Debellator" packages, $2. Remit by post office or Wells, Fargo & Co. money order, or in coin by Wells, Fargo & Co.'s Express.

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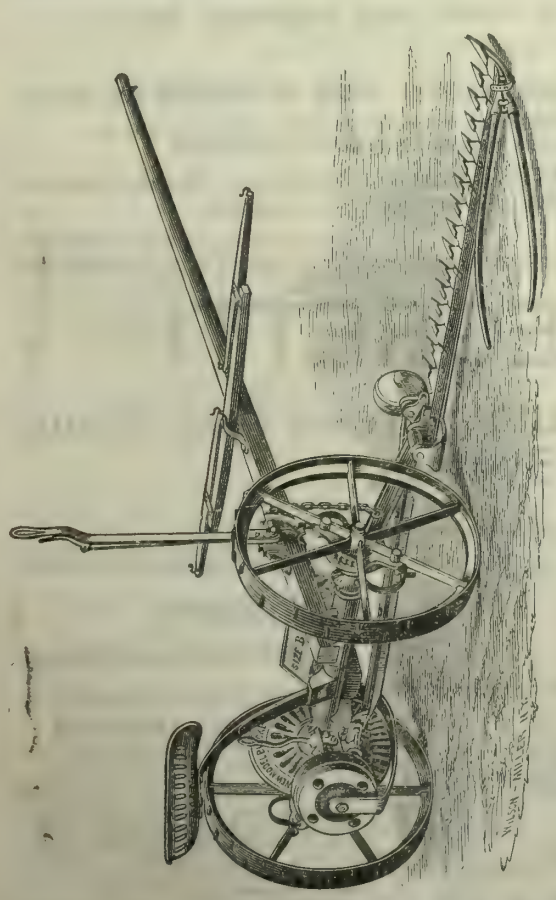
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The Knives have a truer and more uniform throw through the Guard Fingers.
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No loose connections or knuckle-joints.
Cuts a swath the full length of the Cutter Bar without driving the off-horse in the standing grass.
It is perfectly adjustable to any work.
All its weight is utilized for power.
The horses draw directly from the axle, and no weight comes on their necks.
It is the **lightest draft.**
It is perfectly balanced.
Easiest to operate.
Excels all others in portability.
The Cutter Bar holds firmly, and flat across the frame.
The most comfortable and the **safest** for the driver.
Only the best material and workmanship are used in its construction.
It requires **fewer repairs.**
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HAWLEY BROTHERS HARDWARE COMPANY, San Francisco, Cal.

Semi-Annual State Convention of Fruit-Growers.

(*Continued from page 362.*)

In other words, one application, however perfect in destroying insect life, cannot and should not be depended on. The disadvantage about this gas in my estimation is that it is kept so far a secret. We cannot perhaps blame the gentlemen for endeavoring to realize something out of what they consider a valuable discovery that will compensate them for the time they have devoted to the purpose; but I am always suspicious of secret or patent insect remedies. My friend, Mr. Coquillett, perfected this gas after his employment by the Department of Agriculture ceased. But it is a general truth that the moment any person or persons become interested in a patent or in any remedy they desire to control, from that moment their judgment can no longer be depended on as to the value of other remedies. I have been asked why Mr. Coquillett was not continued in the service of the Department for a longer period, and it is perhaps due to the fruit-growers of California and to him to explain why the experiments which he began were interrupted. It had been my desire to have two agents permanently located on the Pacific Coast to carry on the work of my Division here, for I have long felt that your fruit interests, to say nothing of the other agronomic interests of the State, demanded such recognition at the hands of our National Government. It so happens that in my desire to aid other investigations that bear upon the promotion of agriculture, I took part in urging the creation of a Division of ornithology and mammology for the purpose of investigating the habits of birds and mammals so far as they affect agriculture and horticulture. The friends of ornithology were successful in getting that Division created, but were unable to get an appropriation to carry on the work, except by taking it out of the appropriation for the Entomological Division; and during my absence from the country last June, and after all my arrangements had been made for work on the Pacific Coast on the basis of the Appropriation bill passed by the House of Representatives, the amount was cut down in the Senate and part of it given for the ornithological work, thus requiring the discharge of a number of those already engaged and restricting the work of the Department in Entomology.

Bandages Around the Trunk.

There is always danger that a tree once sprayed or disinfected will get reinfested from the insects that have not been reached upon adjacent plants or upon the ground, and which in time may crawl upon the trunk. Any of the sticky bandages used for the Canker-worm will check this ascent, but when the sticky material is placed directly on the trunk it may do more harm than good. It should, therefore, be placed upon strips of tar paper or other stiff paper, tied by a cord around the middle, the upper end flared slightly outward, and the space between it and the trunk filled with soil to prevent the young insects from creeping beneath. Cotton should not be used for this purpose, as birds, for nesting purposes, carry away particles of it which may contain the young insects and may thus help to disseminate them.

Legislation.

Next to the destructive locusts which occasionally ravage our grainfields, no other insect has perhaps been more thoroughly legislated against than this Icerya in California. Indeed, the manner in which the people of this State have taken hold of this insect question and have endeavored by all legislative means to enforce such action on the part of fruit-growers as best subserve the interests of the whole State, is highly commendable. Yet, while much good has undoubtedly resulted, the laws have too often proved inoperative either through the negligence or ignorance of those appointed to execute them, or still more often through the indifference or opposition of individual growers, or unwillingness of the courts to enforce the laws with vigor. And while the greatest co-operation should be urged, and, if possible, enforced, in battling with these insect pests, yet, so far as this particular species is concerned, no human endeavor can now exterminate it from the country. It has come to stay, and nothing has more fully forced itself upon my conviction than that, in the end, with all our laws, each orange-grower must depend upon his own exertions. It is, therefore, fortunate that the pest may be controlled by such individual exertions. While, however, we must admit that it is beyond our power to fully eradicate it from those districts in which it has obtained a foothold, the case is quite different when it comes to restricting its spread, and it is in this direction that wise legislation, and the strict carrying out of the legislative measures you have adopted or may adopt, will be productive of much good.

Recent history has furnished very good evidence of the power of stringent measures adopted by governments, whether to prevent the introduction of an insect pest or to stamp it out when first introduced, and before it has acquired a strong foothold. Several European nations have, in this way, averted, so far, the Grape Phylloxera, and the German Government, on one occasion at least, effectually stamped out our Colorado potato-beetle, which became established in a restricted locality.

The danger which threatens orange-growing districts in this State not yet affected, as well as the orange belt on the Atlantic seaboard, is great, and we cannot too earnestly appeal to the authorities that be for means to employ still greater vigilance to avert it.

Riverside.

What a relief it is to get from a scale-infected region—with the attending evils of blighted and withering growth, smuttiness and unmarketable fruit, into a neighborhood yet exempt from these pests, like this enterprising locality in which you meet! What a joy in contemplating by contrast the bright and cleanly aspect of the trees! And what is there more beautiful in nature than a perfect orange grove at this season, and yet untainted by Coccid or Aphid, or other insect enemy? In all my travels I have nowhere felt nearer the ideal Garden of Eden than in some of your lovely valleys, yet unvisited by these destroying atoms. The profusion and perfection of fruit and flower, the elysian character of the landscape, the genial sun—all appeal to the higher esthetic feeling in man, and one is moved to enthusiastic contemplation and admiration of the glories of nature and the bounties of heaven under such favoring conditions!

State Entomologist.

You know better than I do how your laws have acted in the past and are acting now, and how far your State Inspector and your different county inspectors have succeeded.

But, before passing this matter of legislation, I should be derelict in my duty if I did not urge upon you the value of one form of legislation which has not yet been tried. Without abating one iota the work already being done, whether by individuals or boards, it does seem to me that if you had a State Entomologist, *i. e.*, an officer appointed to devote his entire time to this subject of economical entomology in the State, much additional good might be accomplished, provided he were properly supported and given the means to carry on his work effectually. You should not commit the same error that has been committed by some of the Eastern States, in which the cultivators of the soil have desired to have such a State Entomologist appointed. In three cases which I now have in my mind there has been quite a disposition on the part of the Legislature to pass a proper bill, but it has failed in each case because of the conflicting interests which aimed to control the office. Either the State Board of Agriculture, or a State Horticultural Society, or a State Agricultural College, or some State University, or some other State institution, desired to have the honor and the privileges pertaining to the office, and, between them all, failure has resulted. I should like to see California with a competent State Entomologist appointed, under a bill carefully drawn up providing his duties, by the Governor, upon recommendation of the professor of agriculture in your State University, and the president of such other State horticultural and agricultural bodies as may exist. In this manner the interests of all these bodies might be considered, and the State could not, in my judgment, make a more profitable investment than in the creation of such an office.

Importation of Parasites.

It has doubtless occurred to many of you that it would be very desirable to introduce from Australia such parasites as serve to keep this Fluted scale in check in its native land. We have already seen that there is one minute parasite which has, in all probability, been brought over with it from Australia, and there is no question but that it is very desirable to introduce any such of its enemies and parasites as can be introduced. This State—yes, even Los Angeles county—could well afford to appropriate a couple of thousand dollars for no other purpose than the sending of an expert to Australia to devote some months to the study of these parasites there and to their artificial introduction here. But the agent must be an expert entomologist, and his selection should be left to some competent authority. The result for good, in the end, would be a million-fold, and I have no fear but what you, as orange-growers, will appreciate the force of this statement. I would not hesitate, as United States Entomologist, to send some one there with the consent of the Commissioner of Agriculture, were the means for the purpose at my command; but unfortunately, the mere suggestion that I wanted $1500 or $2000 for such a purpose would be more apt to cause laughter and ridicule on the part of the average committee in Congress than serious and earnest consideration, and the action of the last Congress has rendered any such work impossible by limiting investigation to the United States.

Remarks Confined to the Orange.

Let me, in closing, lay stress on the fact that I have, in all that has been said relating to remedies, had reference solely to the Orange and the scale-insects affecting it.

The Fluted scale is undoubtedly the most difficult to master, and the means I have recommended against it apply equally to your other Orange scales, as experiment has already demonstrated. Your Red scale, in some respects even worse than the Icerya, and of which I should like to say something in detail did time permit, succumbs to it. But when it comes to the treatment of deciduous trees, much that I have said will not apply, and each tree needs separate consideration and is affected differently by different washes.

Prosperity vs. Insect Pests.

In passing from place to place since I have been in the State, and more particularly in visiting the different parts of Los Angeles county, I have been struck with the wonderful activity everywhere manifest in real estate. Land is "booming" in all parts of the country, but nowhere has it reached such proportions, it seems to me, as right here in this part of California. There does not, at first, seem to be much connection between the real estate boom and the scale-insects of the Orange. But I am quite sure that the rapidity with which your orange orchards have been and are being converted into town blocks and town lots has a marked influence on the spread and increase of these scale-insects; for no sooner does the owner of a grove subdivide and sell it than the different new owners allow it to "run to grass," so to speak, and for miles around all your thriving and growing centers of population may be found neglected orchards upon which the insects are reveling and multiplying and scattering into those which are more carefully cultivated. To this cause is, in my judgment, due very much of the rapid reinfesting of these cultivated orchards, so that your insect troubles are, in a measure, connected with your unprecedented growth and prosperity.

Not an Unmixed Evil.

Finally, let me say, before taking my seat, that your scale insects are not an unmixed evil. With your lovely climate, rich and varied soil, and the many other advantages which your beautiful country possesses for the cultivation of the Orange and most other fruits, the business would soon come to be overdone and rendered unprofitable, could every one, before planting his trees, feel sure of an abundant and fair crop without having to contend with difficulties. Under these circumstances, it seems to me that even the dreaded scale-insects, by driving the thriftless to the wall and giving the careful and intelligent man who persists in destroying and defeating them, better prices for his product, may, after all, prove a blessing in disguise. One thing is sure, it is pure folly to talk of giving up the battle and abandoning the field to these your tiny foes. There is no insect that is invulnerable, or that we may not overcome if we but attack it at the right time, in the right place and with proper means and ability. You will, ere long, feel yourselves masters of the situation, and if what I have said will aid in ever so little to give you the victory I shall feel abundantly rewarded. I have already occupied more of your time than I intended to, and though much is left unsaid, even about this single insect, I must close in order to leave time for discussion. In doing so, permit me to congratulate you as a Board for the good work already done, and to prophesy that in future years when the fair and unrivaled fruit of this coast shall have multiplied beyond the most sanguine vision of any of us, and have found its way in one form or another to consumers in all parts of the world, the people of California will gratefully remember the work you instigated and the battles you fought. Ladies and gentlemen, I thank you.

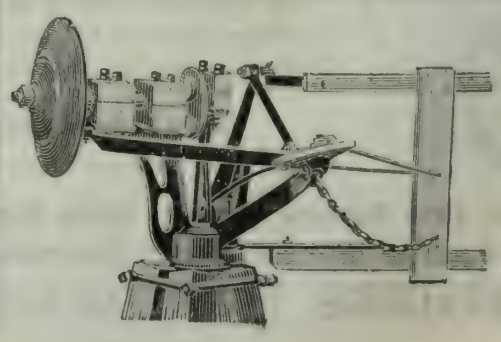
Quite a long discussion followed the address, the fruit-growers present asking many questions, all of which were most fully and satisfactorily answered. This address, with the discussion which followed and the queries and answers, will form by far the most interesting portion of the official publication of the convention. Everything said was taken down in full and in due time will appear in the official report. The discussion was continued until the close of the day.

Before it was fully concluded, the president called upon Mr. W. G. Klee, State Inspector of Insects, for an essay on the general subject of insect pests, for which he had been booked. In response that gentleman said that he had prepared no formal essay, as most of what was desired had been gone over at the last previous session of the board and would be published as soon as the State Printer, in his straitened circumstances, could get around to it. Mr. Klee, however, proceeded to make some informal remarks upon the subject of insect pests in general, during which he made some comments on certain portions of Professor Riley's address, especially upon the remedies to be used—the washes in particular—and the special modes of applying them.

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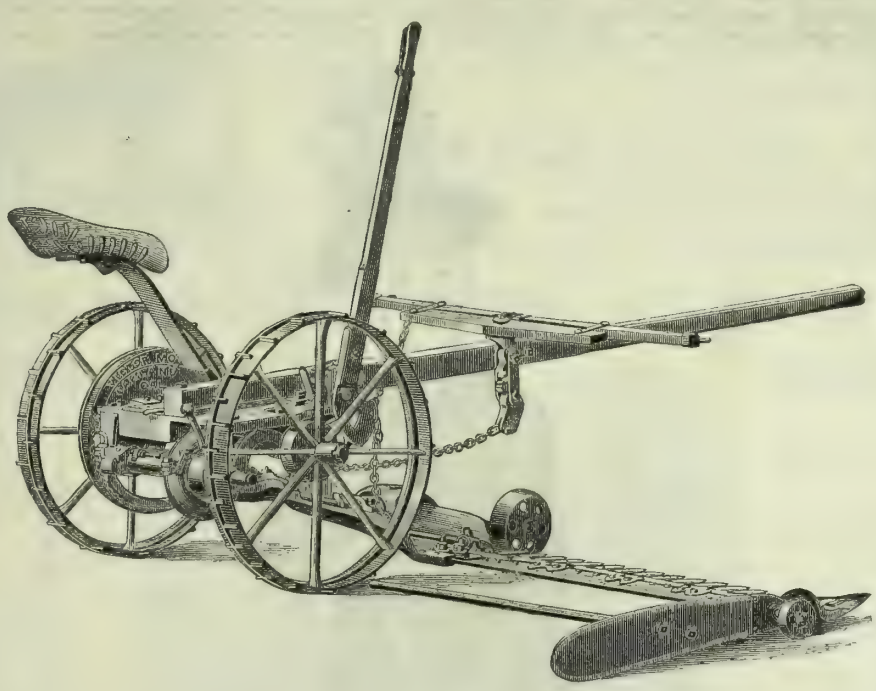
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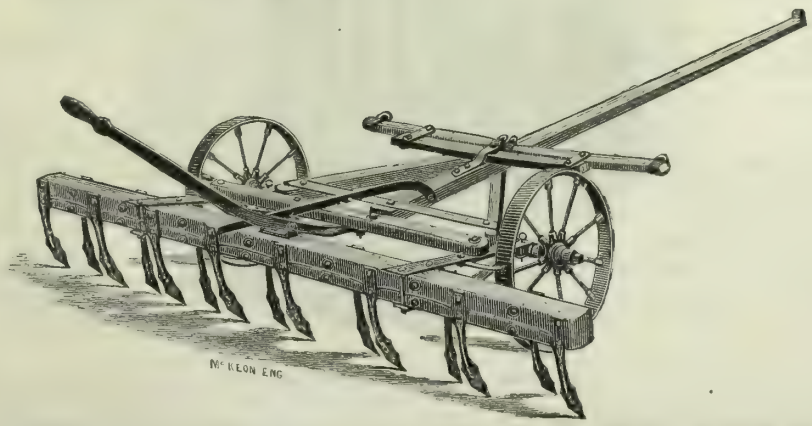
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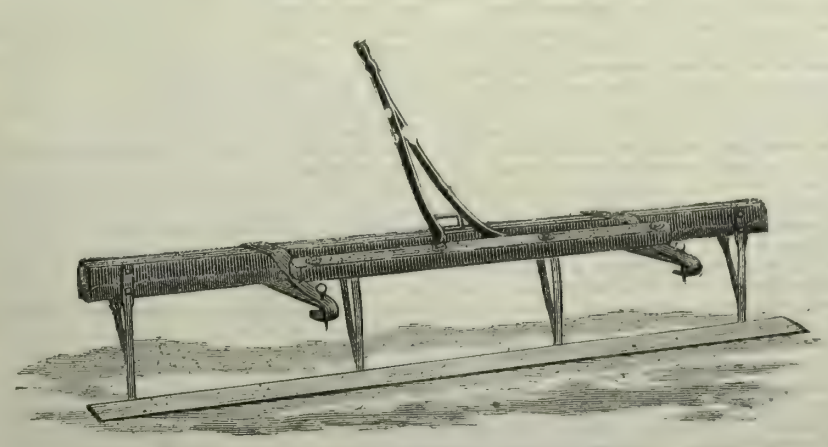
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THE VINEYARD.

Influence of the Mode of Fermentation on the Color of Wines.

University Experiment Station, Bulletin No. 68

It will be remembered that toward the end of the vintage season of 1886, a series of nine fermentations, intended to test the influence of various methods of fermentation upon the resulting wines, was made at the viticultural laboratory; the material being second crop Zinfandel grapes furnished by Mr. Gallegos, of Mission San Jose. The first results of these experiments were given in Bulletin No. 63, and more extendedly in the Viticultural Report for 1886, pages 116 to 124. As time progresses the differences between the several products become in some cases much more marked than they were at first; among these the color-changes are especially notable and practically instructive.

The table below shows the intensities and tints observed by means of the colorimeter at three different times, the first being immediately after pressing, the date of which was between November 7th and 15th.

	Mode of Fermentation.		Percent of Color at Pressing	Tint.	Percent of Color Dec. 20, 1886.	Tint.	Percent of Color April 8, 1887.	Tint.
555	Foulage and floating cover	} I. 96	45.4	2d p.r.	36.3	2d p.r.	17.0	4th p.r.
557	Foulage, no cover	100	31.8	2d p.r.	31.8	2d p.r.	14.0	1to 2 p.r.
558	Three Perret's frames		30.0	2d p.r.	18.8	3d p.r.	7.4	2d p.r.
559	Single Perret frame		27.8	2d p.r.	18.0	3d p.r.	9.0	1st p.r.
560	Frequent foulage, no cover	T. 72°-75	46.4	2d p.r.	35.7	2d p.r.	18.0	4 to 5 p.r
561	Foulage and floating cover		47.0	2d p.r.	27.0	4th p.r.	20.6	3½ p.r.
563	Morel process, with stems		47.6	2d p.r.	26.0	2d p.r.	17.7	5th p.r.
564	Old style, no cover or stirring		46.6	2d p.r.	31.0	3d p.r.	17.0	4th p.r.
562	Foulage and floating cover—Temp. 62°		34.5	3d p.r.	31.0	3d p.r.	17.0	4th p.r.

NOTE.—"p. r." means purple red; "r." means red.

It will be noted that of the nine wines, five had at pressing a full amount of color, averaging about 46 per cent of the (assumed) maximum of the scale; while the four others had in the neighborhood of 30 per cent only, the lowest being in the case of the sample fermented with one grated frame (No. 559) that kept the pomace submerged in one mass, but was not stirred at all during the fermentation. The next lowest was the one in which three frames were used (No. 558); the next to this the one fermented at 100 degrees without cover (No. 557) but with frequent stirring; the next, the one treated in by our usual method, with solid floating cover and twice-daily stirring, but at 62 degrees (No. 562) instead of the usual temperature of 75°; while the one similarly treated at the latter temperature (No. 561) had the maximum of 47 per cent of color. The influence of a high temperature in securing a rapid and full extraction of color was further shown in the sample similarly fermented at 100 degrees (No. 556), in which 46 hours sufficed to extract the color fully. A comparison of the samples treated without stirring with those in which stirring was practiced, leaves no doubt of the beneficial influence of the "*foulage*."

In the readings of Dec. 20, however, the differences originally brought about by difference in the temperature of fermentation are already greatly diminished. Nos. 556, 561 and 562, which were fermented respectively at 100, 75 and 62 degrees, now show a difference of only 6 between the two first on the one hand and the third on the other. On April 8th these three samples have become exactly alike, both in intensity (17) and in tint.

It thus appears that the apparent advantage of a high temperature in fermentation, in extracting the color, was only a temporary one, and has ceased to manifest itself just about the time that new wines are usually sold. The little color of the wine made at 62 has maintained itself, having lost only 50 per cent of its original intensity, while the two others suffered an average loss of 63 per cent.

It still remains to be shown that the same rule holds good for *all* red grapes; but it seems definitely proven that in the Zinfandel grape at least no permanent advantage is gained for color by fermenting at a high temperature, unless some means were found to prevent the loss occurring under ordinary treatment.

A very striking point is shown in the case of the two wines in the preparation of which no stirring was practiced, and in which, therefore, we may assume that only the most interior portion of the color-bearing layers was extracted at all. Here we have in the case of No. 558, with an original intensity of 30, a decrease to 7.4, or nearly 75 per cent loss. In No. 559, although the original intensity was less—27.8—the color has remained at a better figure—9.0—doubtless for the reason that the higher temperature produced in the thick pomace mass caused the more permanent pigments of the exterior layers to be partially extracted. This is also indicated by the tints observed, which in the latter sample lie nearer the purples than in the former.

It thus again appears that in the case of Zinfandel wines *not* subjected to *foulage* or its equivalent during fermentation, not only is the color extracted less as a whole, but is also of a less permanent character, and lies toward the "reds" of Burgundies rather than the "purple-red" tints of the Bordeaux wines.

Glancing at the column of intensities observed on April 8th, it appears that the maximum of color has been preserved by the sample fermented according to the usual practice of the viticultural laboratory, viz.: No. 561, which stands 2.6 points above the highest sample made according to any other method. This sample has also preserved more nearly the purple-red Bordeaux tint than any other; those fermented without any cover (Nos. 557 and 560) having on the contrary gone decidedly farther toward the reds. That this is the tendency of all these samples is obvious from an inspection of the table of tints; and it is in accord with what is known of *all* red wines, and will be amply apparent from a tabular statement of our observations upon a large number of wines, soon to be published.

It should be remembered that, as stated in a former bulletin, the French color-scale runs from simple "purple-red" through five numbered shades toward "red," and from this again through progressively numbered shades of red to orange, the final stage being the brownish-red color of old port wines.

Berkeley, April 15, 1887. E. W. HILGARD.

DEATH OF CHARLES KOHLER.—Deep regret is expressed in vine circles and in the many social and business circles in which he was a prominent figure, over the sudden death of Chas. Kohler, which occurred in this city April 18th. Mr. Kohler was a native of Mecklenberg, Germany. He came to California early and soon saw the adaptations of the country for the wine industry. In this industry he was the pioneer and labored zealously, and in spite of many obstacles at first, for its advancement. In this effort he has been very successful and amassed a fortune. He died at the age of 57 years, and his death is a great shock to his friends who counted upon his presence among them for years to come. Mr. Kohler is described as a man of persistent industry, kindliness of disposition, generous and hospitable.

Misses' Sailor Costume.

For boating, mountaineering, etc., the mode is exceedingly comfortable and jaunty. It is here shown developed in sage-green flannel. The skirt falls in full, pretty folds about the figure, and its top is gathered to the belt, finishing the bottom of the blouse. It has a wide hem at the bottom, and above the hem are five deep tucks. The blouse is gathered at the lower edge and droops in its peculiar fashion over the belt. It is shaped by side and shoulder seams, and its neck is finished with a standing band, below which at the back is joined the jaunty sailor collar, which is quite deep and extends down the fronts to the bust, where its ends meet under a pretty bow of crimson ribbon. Buttons and buttonholes close the blouse, and the coat sleeves are severely plain. Linen cuffs and a linen standing collar are worn. Flannels of all varieties, also serges, cashmeres, light cloths, camel's-hairs, etc., will be devoted to such costumes, and so will ginghams, piques, lawns, chambrays and all kinds of washable textures. In white and cream the mode is charming in all materials. Braids, contrasting bands or pipings, fancy stitching, etc., will be the preferred garniture when a plain finish is not desired. The collar may be of velvet or other contrasting material, and the sleeves be faced in cuff fashion to correspond. An effective decoration is achieved by fastening the hem and tucks and bordering the collar, wrists and neck band with fancy stitching contrasting in color with the material. The brim of the pretty hat is smoothly faced with velvet, and ribbon and thistle pompons.



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Man's inhumanity to woman makes countless thousands mourn, would be an applicable rendering of Pope's line, in view of the indignities she has suffered and pains undergone at the hands of unskillful physicians and quacks. Naturally modest, she suffers on until forced to consult a physician regarding some female difficulty which she well knows is sapping her strength. All this embarrassment can be avoided and a cure effected by purchasing Dr. Pierce's "Favorite Prescription" of your druggist, and taking as directed. Price reduced to one dollar.

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Butter in Five Minutes.

Attention is called to the advertisement of a patent churn-dasher which appears for the first time in this issue. A RURAL PRESS representative witnessed a public exhibition of the working of the dasher, given last Saturday in Mr. Taylor's rooms. A five-gallon churn contained six quarts of cream, and from the first movement of the dasher until the butter was ready to take out the time was several seconds less than five minutes. The cream used was brought in by an employe of a dairy after the assemblage to witness the exhibition had gathered.

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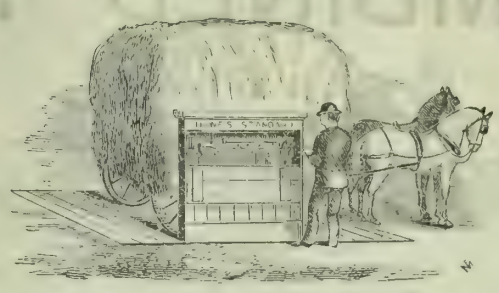
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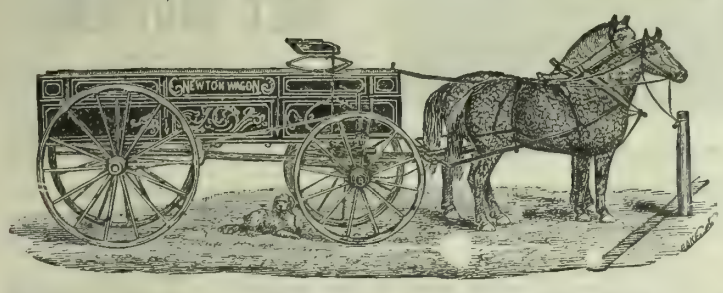
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Under a fine state of cultivation and irrigation. Fences, buildings, ditches, levees and checks built in the most substantial manner. Soil unexcelled, as growth of products show. Located near one of the most thriving towns on the S. P. Co.'s Railroad. **Two hundred and twenty-eight acres in vines,** from one to six years old; all have been planted and cultivated by the most experienced vine-growers, and will soon be a prominent Raisin Vineyard of Fresno County. About 200 acres in Alfalfa. The rest of the land is now in grain crops. The farm is well stocked with horses, mules, cattle and hogs. This is a good, substantial interest-paying investment with a great future Will be sold at a very reasonable price, with easy terms of payment if required. For full information and map, apply to

ALBERT E. CRANE.

410 Montgomery Street, San Francisco, Agent for sale of all kinds of Country Property.

Choice Homes in Contra Costa.

Improved Places for Sale near Walnut Creek.

One lot of 11 acres, with house of six rooms, pantry, milk-room and summer kitchen, in good repair; barn, chicken-house, etc., and fine orchard of various fruits. Situated within 1½ miles of the village of Walnut Creek, this offers an almost ideal home to those desiring a sheltered spot in an almost perfect climate. Price, $2000.

Also, 12 acres close by the same village, half set to Zinfandel grape-vines, just coming into bearing, with four-room house—hard-finished and nearly new—stable, etc. Price, $2300. Wells of excellent water on both places.

For further information, address

H. F., Box 2361, S. F.

A. J. McLEOD. W. H. WRIGHT

LIVERMORE REAL ESTATE AGENCY,

McLEOD & WRIGHT.

Parties desiring to purchase land in large or small tracts in Livermore Valley or vicinity, will find it to their interest to correspond with us. Livermore lands are well adapted for

Growing Vines, Fruit and Nut Trees!

Our Wines have Surpassed those produced in any other part of the State. We have for sale a number

IMPROVED and UNIMPROVED FARMS at Very Reasonable Prices!

Correspondence solicited, to which prompt and careful attention will be given.

FRESNO COUNTY.

BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R. towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

THE WATER RIGHTS

Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied for colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. One-half already sold. The cheapest Colony land in the county, on very easy terms to actual settlers.

☞For further particulars call on or address

O. J. WOODWARD, FRESNO, CAL. L. SHARPE, SELMA, CAL.

THE IMPROVED LINK AND V-BELT COMBINED HARVESTER!

Manufactured by

The Stockton Wheel Co.,

STOCKTON, CAL.



For further information and Price Lists address STOCKTON WHEEL CO., STOCKTON, CAL., or the undersigned, importers of

Wagon & Carriage Materials and Hardware.

HOLT BROTHERS,
30 and 32 Main St.,
SAN FRANCISCO.

Our Improved Harvester will, without question or doubt, be the most popular machine in the grain field this year, as it certainly was last year, wherever used. Everybody who saw it working in the grain, running over rough ground, through hog wallows, over fields studded with trees, with as much ease and regularity as though the fields were smooth and level. Read the testimonials of several farmers who used our Harvester last year.

We have improved our machines over last year very materially, strengthening the weak points by putting in additional truss-iron braces, increasing or lowering speed when required, shortening the chain belts and substituting pivot and sliding boxes for the old fashion solid boxes, which will not give a particle as the frame warps or twists out of line. The greatest and most desirable change we make this year is discarding the sleeve on the main shaft, which caused us more trouble last year than anything else, by sticking to the shaft, making it grind the shaft and run hard. In a few weeks' time it wore away, leaving it rickety and causing the cylinder to run unsteady. This most desirable improvement makes it run one horse lighter at least.

Some of the agents of other manufacturers have sought to frighten farmers into buying their machines by telling them if they buy our Improved Harvester that they are liable to be prosecuted for infringement of patents. Now, these agents know, or if they don't know they ought to, that what they assert is false and malicious. Our Improvements are our own, and infringe upon nobody's patents. To allay all apprehension in the minds of intending purchasers, we say here that we will protect you against any and all losses on account of suits for infringements. The following are some of the advantages our Improved Harvester possesses over all others:

1. Our Improved Harvester runs FOUR horses lighter than any other machine made.
2. It is easily handled, and turns a square corner as readily as a mowing machine.
3. It is less liable to get out of order, and cheaper to keep in repair than any other machine.
4. It has no clumsy, expensive gearing to wear out or break.
5. It is run mostly by Link and V-Belts which, in case of breakage or accident, can be repaired in the field without loss of time.
6. Our Harvester makes no noise to frighten or irritate the horses, and makes less noise than ordinary headers.
7. Our Header is far the simplest and runs the lightest, and is the strongest and best. There are no Rickety Gears or Trembling Rods to break.
8. The Header may be raised and lowered instantly from any part of the Separator.
9. Our Harvester WEIGHS FIFTEEN HUNDRED POUNDS LESS than any other machine of the same capacity in the market.
10. It will cut, thrash, clean and sack more grain in a season, with less expense for labor and repairs than any other Harvester ever turned out.

Remember, all our Improved Harvesters are warranted to work well or no pay. Examine them before purchasing elsewhere. We shall sell our Harvesters upon their merits alone.

TESTIMONIALS:

GRAYSON, CAL., Feb. 21, 1887.

MESSRS. HOLT BROS. Dear Sirs: As to your machine, we think it a good one. It saved the grain well. Had but little lost time; as to expense, $25 would cover the whole for the entire season. Number of acres cut, 1750. If we were going to buy another, we should certainly get one of yours. Respectfully, F. CARPENTER, R. BROWN.

OAKDALE, Feb. 21, 1887.

MESSRS. HOLT BROS.—Gents: I ran one of your Combined Harvesters last year. Cut 1950 acres of grain in 63 days. Did not lose over one day making repairs and replacing extras. Repairs cost about $10. I cut both light and heavy grain. It did good work, and the grain brought the highest market price, on account of its being better cleaned. I am perfectly satisfied with my purchase. I have worked with three other Combined Harvesters, and consider yours the best in the field for lightness of draft, durability and fine work.

Respectfully yours, D. W. CARMICHAEL.

GRIDLEY STATION, Sept. 22, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: I have used one of Holt Brothers' Link Chain and V-Belt Combined Harvesters, and consider it (in my opinion) the best Harvester made. This season I harvested 800 acres; averaged 23 acres per day, with 12-foot cut. I consider the draft is four horses lighter than either the Houser or the Young Machine. It does better in all kinds of grain than either of the above-named machines. I run the whole season without any breakage.

GEO. WICKMAN.

TURLOCK, Sept. 16, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: Your letter of the 8th inst. received and contents noted. In reply I will state that I think your machine is the best that is made. I cut 1350 acres of grain with it in 42 days. I did not have to repair the machine from the time I started till I quit running it. It runs lighter, and I think does the best work of any machine that I have seen. Very respectfully, ED. McCABE.

DIXON, Sept. 10, 1886.

MESSRS. HOLT BROS., San Francisco—Dear Sirs: Yours of Sept 8th at hand and contents noted. Will try to answer your questions as nearly correct as I can. Of course I have not seen all of the different Harvesters working, but from what I have seen and learned, will say that so far as my information and experience goes, your Link and V-Belt Harvester is, in all respects, the best in use. It did as good work, if not better work, than the Houser here. It pulls from two to four horses lighter than the Houser. My repairs were nothing; was not detained at all in my harvest on account of breakage. I cut 600 acres in 23 days, and moved four miles three different times. Yours truly, JOS. KLINE.

And Many Others.

Banks and Banking.

GRANGERS' BANK
OF CALIFORNIA.
SAN FRANCISCO, CAL.

Authorized Capital, - - $1,000,000
In 10,000 Shares of $100 each.
Capital Paid up in Gold Coin, $645,360.
Reserved Fund and Paid up Stock, $21,178.

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I. C. STEELE.....Vice-President
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CURRENT ACCOUNTS are opened and conducted in the usual way, bank books balanced up, and statements of accounts rendered every month.
LOANS ON WHEAT and country produce a specialty.
COLLECTIONS throughout the Country are made promptly and proceeds remitted as directed.
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CERTIFICATES of DEPOSIT issued payable on demand.
BILLS OF EXCHANGE of the Atlantic States bought and sold. ALBERT MONTPELLIER, Cashier and Manager.
San Francisco, Jan. 15, 1882.

THE GERMAN Savings and Loan Society,
526 CALIFORNIA STREET,
SAN FRANCISCO.

Capital and Deposits, Jan. 1, '87, $14,362,960.

LOANS MADE ON REAL ESTATE IN THE COUNTRY
AT LOWEST MARKET RATES.

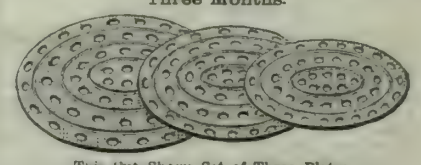
IMPROVED **HIRES' ROOT BEER**
25 CENTS PACKAGE
Makes Five Gallons of a delicious, sparkling temperance beverage. Strengthens and purifies the blood. Its purity and delicacy commend it to all. Sold by druggists and storekeepers everywhere.

STOCKTON COMBINED HARVESTER & AG'L WORKS
Stockton, Cal.
The only Manufactory that makes a Specialty of Building
COMBINED HARVESTERS.
PULL and PUSH, BELT and GEARED.
Houser, Minges, Shippee, and Powell
THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.
THE BEST KNOWN AND MOST POPULAR.
800 in Field Use and No Failures.
NONE EVER RETURNED TO THE WORKS.
HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886
They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.
They Cut, Thrash, Clean, and Sack
For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. They Save Three Bushels an Acre over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.
THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞ See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address
STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

HOLMES' KETTLE PLATES
A NEW INVENTION.
Saves their Cost in the Wear of Kettles in Three Months.



This Cut Shows Set of Three Plates.



This Cut represents the plate in use with asparagus cooking on it.

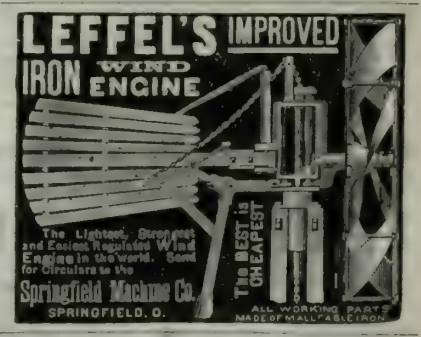
These plates will prevent all kinds of meats, vegetables, etc., from burning while cooking, even though the kettle boils dry. With two accompanying rings are a perfect substitute for a steamer or rice boiler, and can be put to a dozen other uses in the kitchen.

Price by mail, with full directions, 75 cents for the set of 5 pieces—three plates and two rings.

AGENTS WANTED in every County in the United States. Address:

CHARLES J. HOLMES,
Patentee and Manager Palace Dye Works,
1332 Market Street, San Francisco.

☞ This advertisement will not appear next week.



TO THOSE WHO CONTEMPLATE TAKING UP THE BOOK BUSINESS, we wish to say that we are prepared to do better by them than any other house can afford. We carry the finest line of popular subscription books on this Coast, and by a system of training, can make a success of the most inexperienced. Book Agents, we ask you to look into this. Address for terms, books, and territory, BANCROFT & CO., 607 Market St., San Francisco.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING APRIL 12, 1887.

361,126.—GRAIN DRIER—Borland & Parsons, S. F.

361,205.—BEET PULLER—R. R. Burrows, Potter Valley, Cal.

361,133.—SMOKE-CONSUMING FURNACE—C. C. Carter, S. F.

361,134.—CHINESE LANTERNS—Lam T. Chu, S. F.

361,064.—STOVE—Francis Jackson, Oakland, Cal.

361,076.—WHEEL AND AXLE—J. Pettinger, Santa Barbara, Cal.

391,183.—KEY FASTENER—F. Reisner, Eugene City, Ogn.

360,930.—MINING CAR—J. M. Thompson, S. F.

14,281.—TRADEMARK—J. F. Nolan, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

IMMENSE SHIPMENTS OF MACHINERY.—Manufacturers of machinery destined for shipment to distant markets made haste to get as much of their goods underway before the incoming of the Interstate law as possible. From M. K. Lauden, general agent of Wm. Deering & Co., in this city, we have a copy of the Chicago *Tribune* of April 2d, from which we take the following: "Merchants and manufacturers in Chicago have been generally taking advantage of the last days of the old state of affairs to ship out large consignments. As an illustration of this the Deering Harvester Works sent out on Friday and Saturday five solid trains of about 30 cars each loaded with machinery. These trains, gay with flags and banners, all go to the State of Nebraska alone and will go through to their destination as complete trains. Taking advantage of the low rates, the Deering Company has shipped upward of 900 cars of machinery in the last three weeks, taxing the capacity of their works, in which they are working 2500 men, to the utmost."

CHERRY BLOSSOMS.—One morning last week a friend handed us a little bunch of bloom, plucked from a cherry tree of Dr. T. F. Bacon's, at Fruitvale. At the tip of the twig, within a space hardly two inches long, sprung 72 buds and blossoms, in clustered, fragrant loveliness. We were told that the whole tree-top was a mass of snowy flowerage, and that this was but one, though a particularly fine sample, of the beauteous promise of the orchards thereabout. What a hint of refreshment such a posy brings to those "in populous cities pent," week after week, month after month can scarcely be known to such as get frequent runs and breathing spells in the country, or live amid the fields and groves all the year round.

A REPRESENTATIVE of the PRESS made a flying trip last week through the lower part of Sonoma county to Santa Rosa. At this growing inland city he found tokens of substantial prosperity, rows of brick buildings and fine residences going up on every hand. Numbers of visitors are looking for lands, and the real estate office of Guy E. Grosse was crowded with home seekers from different portions of California and Eastern States. W. H. Worth, of Petaluma, had just received three orders for his wine and cider press, and was preparing to put a large force at work manufacturing these presses and the new patent grape-stemmer and crusher.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

SHORTHORN CATTLE.—In our advertising columns will be found a card of Hyde & Moore, of Visalia, offering shorthorns for sale. The herd owned by these gentlemen has been well spoken of by RURAL correspondents who have visited the farm, and created a good impression when exhibited at the leading fairs last fall.

NEW GRAPEVINES.—The Viticultural Commission has received from William Farrar, a vineyardist of Queen Beyan, N. S. W., several cuttings of grapevines to be tested in this State. The varieties are: Baxter's late sherry, Ancarot and Shepherd's Reisling. The vines will be set out at C. A. Wetmore's vineyard at Livermore.

Fortune's Favorites

Are those who court fortune—those who are always looking out for and investigating the opportunities that are offered. Send your address to Hallett & Co., Portland, Maine, and they will mail you free, full particulars about work that you can do while living at home, wherever you are located, and earn from $5 to $25 per day and upwards. Capital not required. You are started free. Both sexes. All ages. Some have earned over $50 in a single day. All is new.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
GEO. MCDOWELL—Tulare Co.
T. P. POWERS—Napa and Sonoma Cos.
A. J. HARE—El Dorado Co.
J. L. DOYLE—Mariposa Co.
W. J. FREEMAN—Yolo Co
CHAS. LIST—Alameda Co.
T C. STARR—San Bernardino Co.
S. J. LITTLEFIELD—San Diego Co.

GILROY talks of starting a cannery. It is probable that a stock company will be formed in time for this season's crop.

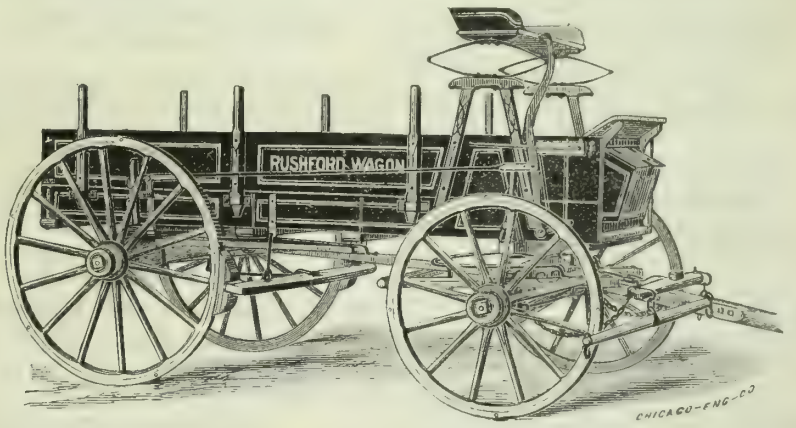
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It will Pay You to Examine the

Rushford Tubular Steel Axle —AND— Steel Skein Wagons!

BUILT FOR THE PACIFIC COAST TRAD E.

The Tubular Axle is made from one piece of wrought steel, from end to end, including spindles; with polished case-hardened spindles and ground, seamless boxes. The manufacturers guarantee to replace any Tubular Axle bent or broken, no matter under what weight or circumstance.



THE RUSHFORD STEEL SKEIN RANCH WAGON

Will carry 1000 lbs. more weight than the same size of Iron Skein Wagon.

1. It is the only skein covering the tapering portion of the axle in SOLID STEEL.
2. It envelops more of the axle with SOLID STEEL than any other skein.

We carry all sizes of Tubular Axle and Steel Skein Wagons, with capacities from 2000 to 15,000 pounds. Prices same as in the old style of iron axle and skein wagons.

Full descriptive catalogue upon application to

Bull & Grant Farm Implement Co.,

14 & 16 MAIN ST., SAN FRANCISCO, & 233 N. LOS ANGELES ST., LOS ANGELES.

INSURE YOUR GROWING GRAIN

CROPS

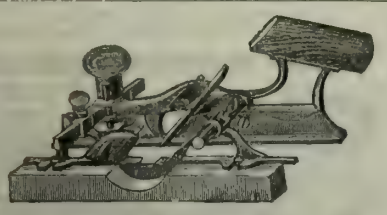
IN THE FIREMAN'S FUND OF CALIFORNIA.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

Liberal Religious Literature.

Views, Opinions, and Sentiments of Eminent Writers on Religion and its Relation to Man and Society. Address MISS HARRIET KELSEY, Sec'y, Unitarian Church, San Francisco. Correspondence invited.



Fales' Patent Variable Bench Plane.
Price, complete, $31.00.

Constituting Carpenters' Plow, Dado, Front and Back Fillester, Matching Planes, Hollows, Rounds, Beads, Sash Planes, Side Rabbets, Case Moldings, Ogee, Quarter Rounds, Nosing and V-Planes, etc., etc. Combining in one Implement over 80 different and Essential Woodworking Planes.

Agents, OSBORN & ALEXANDER,
628 MARKET ST., SAN FRANCISCO.
Mechanics' Tools, Hardware & Machinery.
Send for free Illustrated and Descriptive Catalogues and Price Lists of all our goods.

H. C. SHAW PLOW WORKS.

Stockton, Cal.

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Triumph Mowers —AND— Reapers

(Better Known as "New Clipper.")

Chieftain Sulky Hay Rakes.

Manufacturers of the

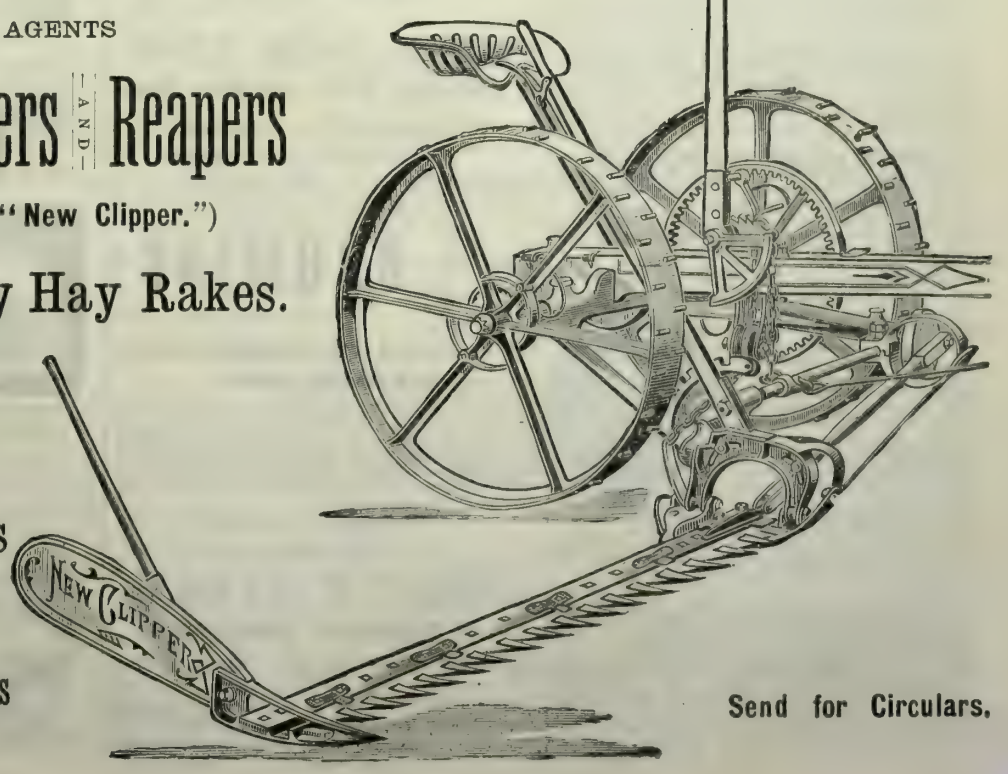
POWELL

Derricks and Nets

FINE STOCK OF

Wagons, Carriages, Buggies

Etc., Etc.



Send for Circulars.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

POULTRY.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

O. J. ALBEE, Lawrence. Pedigreed Scotch Collie Pups. Also, Eggs, balance of season, from best fowls, $3 per two settings.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

E. H. FREEMAN, Santa Clara, Cal., importer and breeder of poultry. Send for new illustrated circular.

S. E. CHAPMAN, 1034 Guerrero St., S. F., Thoroughbred Golden Pheasant Fowls and Hatching Eggs.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

F. PEREZ, Florin, Cal. Plymouth Rocks and Brown Leghorns. Eggs for sale.

PIEDMONT POULTRY YARDS, J. N. Lund, Box 116, Oakland, Cal.

T. D. MORRIS, Sonoma, Cal. Toulouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 160 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

HORSES AND CATTLE.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

THE BEST HERD OF JERSEYS, all A. J. C. C. registered, is owned by Henry Pierce, San Francisco.

H. W. COWELL, Stockton, "Morrano Farm," breeder and importer (and agent for Leonard Bros., Mo.) of Aberdeen and Galloways. Young stock for sale.

ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

T. E. MILLER, Beecher, Ill. Oldest and best herd Hereford Cattle in U. S. Cattle delivered in California.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

W. J. MARSH & SON, Dayton, Nevada. Registered Shorthorns of choicely bred strains.

H. van der STRATEN, Hopland P. O., Durham Valley Farm, Mendocino Co., breeder of Shorthorn Cattle (registered). Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

Estate of M. E. BRADLEY, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D. HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

E. J. TURNER, Hollister, Breeder of Percheron-Norman registered Horses and Roadsters.

E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

SHEEP AND GOATS.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

JOHN FATJO, Santa Clara, 70 head of Angora Goats. Imported Buck for sale cheap

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

T. H. HARLAN, Williams, Colusa Co., breeder pure blooded Angora goats, & Merinos; young stock for sale.

EASTON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

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WEDNESDAY, MAY 4, 1887.

Peremptory Sale!
Without Reserve!

—OF—

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Far Niente Farm, near Oakville Station, Napa County.

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Of Short Horn Cattle and Dairy Cows.

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Breeder of pure-bred Poland China Pigs of the Black Beauty, Black Bess, Bismarck, and other noted families. Imported boars King of Bonny View and Gold Dust at head of the herd. Stock recorded in A. P. C. R. Pigs sold at reasonable rates. Correspondence solicited. Address as above

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Mixes instantly with Cold Water.

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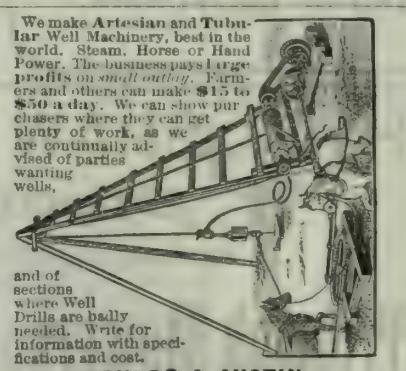
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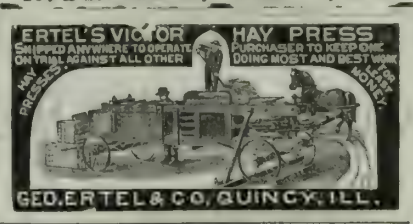
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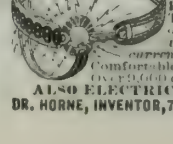
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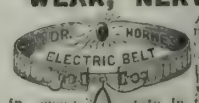
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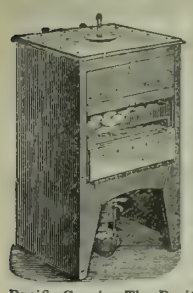
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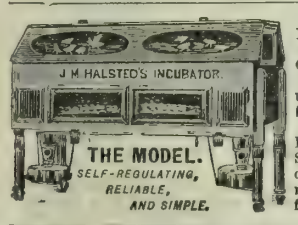
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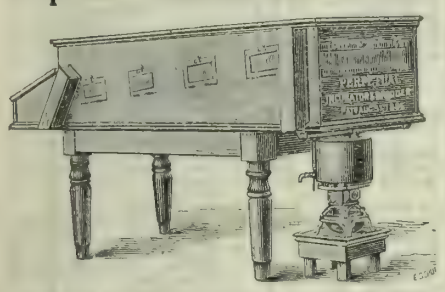
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The most successful "business" Incubator ever invented.

The only Incubator in which eggs can be introduced daily and hatch successfully.

Requires no heat "regulator." The heat is scientifically graduated to suit the different periods of incubation.

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Important Aids to Learners
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Mason's System of Technical Exercises ($2.50) can be used with any Instruction Book, and is of the highest value and importance in developing technique.

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Best and Strongest Explosives in the World.

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For Stump and Bank Blasting. From 5 to 20 pounds blows any Stump, Tree or Root clear out of ground at less cost than grubbing. Railroaders and Farmers use no other.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

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NITROGENOUS SUPERPHOSPHATE.

UNIVERSITY OF CALIFORNIA, Nov. 3, 1886.

DR. J. KOERIG—Dear Sir: I have analyzed your sample of **"Nitrogenous Superphosphate,"** with the following result:

Soluble Phosphoric Acid	12.90	per cent
Reverted Phosphoric Acid	.95	"
Insoluble Phosphoric Acid	2.83	"
Potash	2.23	"
Ammonia	1.87	"
Nitric Acid	2.95	"

The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia**, therefore, total of Nitrogen calculated as **Ammonia**, 2.72 per cent.

This **Fertilizer** is a **Valuable Manure** for vineyards, orchards, gardens, farms, and I **recommend** its use by the cultivators of the soil **generally**, in **California.** Yours truly, DR. E. A. SCHNEIDER.

University of California, College of Agriculture.

BERKELEY, Nov. 20, 1886.

DR. J. KOERIG, San Francisco—Dear Sir: I take pleasure in adding my testimony to that of Dr. Schneider as to the high quality of the **"Nitrogenous Superphosphate"** Fertilizer, analyzed by him at your request. It is a **high-grade article**, and as such returns the user a better money value than a low-grade fertilizer. It is **especially well** adapted to use in **California**, on account of the **predominance** in it of **Phosphoric Acid**, which is generally in small supply in our soils. Yet it is desirable that **"complete"** fertilizers be used in our orchards and vineyards, and **yours is of that character** in furnishing Potash and Nitrogen as well. Very respectfully,
E. W. HILGARD.

The value of this Fertilizer consists in the large percentage it contains of **Phosphoric Acid**—the chief element of all plant food—in combination with the necessary quantities of **Potash** and **Ammonia**, and the ease and cheapness with which it can be applied.

In ordinary soils the following quantities will be found sufficient: For Wheat, Barley, Corn and Oats, 300 to 350 pounds per acre. For Grass, Sugar Beets and Vegetables, 250 to 300 pounds per acre. For Vines, Fruit Trees, from ½ pound to 1 pound each. For Flower Gardens, Lawns, House Plants, etc., a light top dressing, applied at any time, will be found very beneficial.

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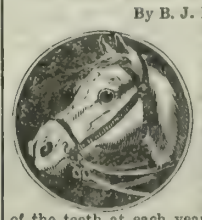
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S. F. MARKET REPORT

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 20, 1887.

The weather the past week has been of the very best for growing crops, putting all vegetation well along. The feeling is more cheerful, owing to the improved prospects of crops. In cereals, Eastern advices reported lower prices up to to-day, when there was a slight advance. The European wheat market has ruled firm. To-day's cable is as follows:

LONDON, April 20.—Cargoes off coast, quiet, but steady; cargoes on passage and for shipment, do; Mark Lane, steady; Cal. wheat just shipped, 38s 9d; Cal. wheat nearly due, 37s 9d; Liverpool wheat, spot, firmly held; Liverpool wheat, Cal. 7s 6d to 7s 9d.

Foreign Review.

LONDON, April 18.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: The deliveries of native wheat have been restricted. The remainder of the crop in hand now is supposed to be small. Values are hardening. Sales of English wheat during the past week were 36,967 quarters at 32s 8d, against 49,954 quarters at 30s 10d during the corresponding week of last year. Foreign wheat is firmer, although the inquiry is inactive. In the Liverpool market, prices are 1d higher. The quotations of wheat cargoes on passage are nominal. To-day wheat was quiet but steady; prices were rather against buyers. Flour was steady; corn, firm; oats, 3@6d dearer; beans and peas were 6d@1s lower.

Eastern Wool Markets.

BOSTON, April 17.—There has been an improved demand from manufacturers the past week. Transactions amount to 3,059,100 pounds of all kinds. This total is composed largely of foreign wool, principally Australian, but sales of domestics reach upward of 1,750,000 pounds, a larger amount than for several weeks past. This better demand indicates the manufacturers have become convinced that prices are about as low as they are likely to be for the present. Most of the wool now on the way here has been sold to arrive. Unless there is some change made in the freight rate, wool will accumulate rapidly at San Francisco. The Interstate Commerce Commission has been petitioned to suspend Section 4 in relation to wool. It is reasonably certain this will be done. There has been a moderate demand for Texas wools. Sales are noticed of 20,000 pounds fall at 19 to 20c; 92,000 pounds fall at 16 to 19¼c; and 20,000 pounds fall on private terms. In fall California wool there have been sales of 89,000 pounds on private terms. In unwashed and unmerchantable fleeces there have been sales of 15,000 pounds, medium, at 25 to 31c; 33,000 pounds fine at 22c; 10,000 pounds fine at 21c; 6000 pounds unmerchantable at 22c; and 50,000 pounds unwashed on private terms. Receipts for the week have been 3646 bales domestic and 8397 bales foreign.

NEW YORK, April 17.—Quietness has prevailed, with the tone of the market barely steady. Prices, though nominally unchanged, tend to favor buyers. Manufacturers are purchasing sparingly; only their immediate wants are looked after. Sales of the week included 20,000 pounds unwashed western at 31c; 50,000 Territory at 21c; 50 bales Colorado and 25 bales scoured California on private terms. California fall, fine, quoted at 18@20c; do low, 11@17c; California spring fine, 24@26c; medium, 20@23c; low, 14@17c; Territory, choice, 25@27c; fair to good, 20@23c; coarse, 15@19c.

The Philadelphia market is dull. Manufacturers are buying only for urgent wants. Stocks of wool are very light, aside from fine fleeces and Territory clips, of which fair assortments are still available. Among sales were 2000 pounds New Mexican, improved, at 17@20c; 2000 pounds carpet at 13½c.

The London Wool Market.

LONDON, April 18.—At the wool sales today there was full attendance. Extreme prices were demanded for all kinds.

Crops at the East.

CHICAGO, April 17.—The following summary will be published by the *Farmers' Review* to-morrow: Correspondents from nearly every county in Kansas, Missouri, Illinois, Indiana, and Ohio report that there has been no adequate relief from the drought, and that high and dry winds are causing steady deterioration in the condition of winter wheat. A certain percentage of damage has already occurred, yet notwithstanding impending great injury which much longer prolongation of drought would effect, the generality of reports from the wheat districts continue favorable. The pastures and meadows in the States of Illinois, Indiana, and Ohio are already suffering very seriously, however, owing to the lack of rain. Spring wheat seeding has been nearly completed in Illinois and Iowa, and is in progress in Minnesota, Dakota and in Michigan. The ground is reported to be in a favorable condition in Iowa, Dakota and Minnesota for the reception of the seed.

Eastern Wheat Markets.

NEW YORK, April 17.—Wheat at close prices rallied a trifle from the lowest point. Final losses were scored of 1⅛c for April and May at 92½@92¾; for June at 92¾@92½; for July at 91⅞@91⅜; for August at 91½; September 91⅞; and ¼c for December at 95⅛c.

NEW YORK, April 20.—92½c for May, 91⅞c for June, 91½c for July, 90⅝c for August.

CHICAGO, April 20.—83⅛c for May, 81⅛c for June and 81⅜c for July.

Dried Fruit and Canned Goods East.

NEW YORK, April 17.—Canned Goods—A moderate trade is reported by jobbing houses. Corn is scarce and firm. Tomatoes are held steadily.

Dried Fruit—Raisins, steady with limited sales, California loose Muscatel, two-crown, $1.25@1.70. Prunes, Turkish, dull and easier at 4⅜@4⅞c; Bohemia, weaker at 3½c; French, irregular at 6½@7c for 60's and 90's. Currants are in moderate demand from jobbers, closing firmer at 4¾@4¾c. Citron is selling at 16¾c for Leghorn.

NEW YORK, April 18.—Agents of California growers are endeavoring to obtain orders for canned fruits that will be packed the coming month. Buyers are solicited to purchase upon a "free on board" basis, but all are uncertain as to what the lay-down cost is likely to be when freight rates are added. A few orders have been taken, but these have been narrowed down to small quantities, sufficiently only to make a show in stock when the goods are available.

New York Hop Market.

NEW YORK, April 17.—There were a few sales and some bids that gave the market a slightly better tone last week. Some very good 1886 Californias sold at 18c, and a bid of 21c for over 150 bales of choice Washington was refused. Four hundred bales of 1884 Pacifics brought 6c, not 5c, as previously rumored. Pacific Coast crop, 1886—best, 21@22c; do, common to good, 14@17c, 1885, good to prime, 7@9c.

California Products at New York.

NEW YORK, April 17.—Green Fruit—The only pears to be had are California Easter Beurres, which are large and of fine flavor, selling at $3 a dozen. The seedless Navel oranges are in great demand and sell at $1.50 per dozen.

Seeds—Mustard, firm but quiet; California yellow, 4¼@4½c.

California Fruit in Chicago.

CHICAGO, April 16.—There has been no appreciable change in the prices of oranges this week from last. The receipts of oranges from California still keep up to the demand. Choice fruit has met with a fair sale and prices here ruled firm, while common grades and smutty oranges are slow and easy. Florida stock is getting scarce. The principal trade is in Californias. The following prices are quoted by the *Daily Trade Bulletin's* official circular of the street: Bright Riverside, $3.50@4; San Bernardino, $3 50@4.25; Santa Ana, $3@3.25; Orange, $2.50@3; Los Angeles, $2.75@3.25; Navel oranges, according to quality, $5@6; Duarte, $3@3.50; San Gabriel, $2.75@3; blood oranges, fancy, $5@7; culls, $2.

The dried fruit market is quiet, if not a little dull. Country orders are not increasing yet, but stocks are supposed to be getting rather low. California dried fruits steady all round. There have lately been fair arrivals of raisins. This line of fruit meets with good sale, the quality being very fine. Other descriptions are at present in small supply and generally steady. Prunes, French, 8@9¼c ₩ lb; plums pitted, 10@11c ₩ lb; peaches, halves, 11@12½c ₩ lb; peaches, halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London Layers, 20-lb boxes, $1.40@1.50; loose Muscatel, $1.20@1.30; California Layers, $1.25@1.35 ₩ box.

Local Markets.

BAGS—The market has ruled quiet and dull throughout the week at from 5¾@6c for standard Calcuttas.

BARLEY—The market ruled quiet but steady throughout the week up to to-day, when it was strong at full figures. On Call, trading has been fair, but at prices showing slight variations. The following are to-day's sales:

Morning Session: Buyer season — 500 tons, $1.08½; 500, $1.08¾; 400, $1.08¼; 200, $1.08. Seller 1887—200 tons, $1.00½ ₩ ctl.

Afternoon Session: Buyer season — 100 tons, $1.08⅝; 200, $1.09. Buyer 1887—100 tons, $1.13; 100, $1.13¼; 100, $1.13½. September—100 tons, $1.04¾ ₩ ctl.

CHEESE—The market is strong and slightly higher, owing to lighter stocks and an active demand. Since the Interstate Commerce law went into effect many points are buying here that purchased at the West.

BUTTER—The market is strong at an advance. The outturn this season is below last year's, while the consumption is larger.

EGGS—Heavy supplies of Eastern eggs cause the market to rule weak and in buyers' favor, except for very choice Californian, which are well maintained.

FLOUR—The market is strong at another advance. Several mills that shut down have started up again.

WHEAT—The market ruled weak and easy up to to-day, when a stronger tone was discernible. The supply in the State is light for the season. On Call, trading has been fair, with a lower range ruling up to to-day, when under stronger buying an advance was established. The following are to-day's sales:

Morning Session: Spot, season's storage paid—500 tons, $1.75¾. Buyer season—100 tons, $1.85; 1200, $1.85¼; 600, $1.85½. May—100 tons, $1.77: 100, $1.77½. July—400 tons, $1.79. August and September—100 tons, $1.70. Buyer 1887—300 tons, $1.96; 200, $1.96¼; 100, $1.96¾; 500, $1.96½; 100, $1.96⅝. Seller 1887—1700 tons, $1.68¾; 800, $1,68⅝; 500, $1.68¾; 500, $1.68¼; 300, $1.69 ₩ ctl. Afternoon Session: Buyer season—400 tons, $1.85⅝; 200, $1.85½. Buyer 1887—300 tons, $1.96¾. Seller 1887—200 tons, $1.69¼; 700, $1.69⅜; 800, $1.69½. May—100 tons, $1.77¼; 100, $1.77⅛ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Eastern advices report considerable damage to the winter wheat crop in Michigan, Kansas, and Ohio. In some sections of Ohio many fields were plowed up. The spring seeding in the Western States is reported by telegraph completed. The acreage is placed at 14,000,000 acres. On April 2 the visible supply of wheat was 51,585,985 bushels, a decrease compared with the preceding week of over 1,100,000 bushels and only about 2,500,000 bushels in excess of the quantity on April 3, 1886. This year the quantity in farmers' hands is very considerably below the amount held last year at this time. The reason of the very light supply in farmers' hands is that high prices ruling for wheat have caused farmers to make deliveries. The exports from the Atlantic seaports from September 1, 1886, to April 2, 1887, aggregate 42,356,898 bushels against 12,242,902 bushels in the like time in 1885–86. Several of the large Minneapolis flouring-mills are to shut down soon and await developments.

Advices regarding the wheat crop on this coast continue favorable in Western Idaho, Eastern Washington Territory, and both Eastern and Western Oregon. In this State the growing plant is doing exceptionally well, owing to fairly cool, moist weather. The early sown grain is well stooled and has good roots, but the late sown is not stooled out so well. As the bulk of the acreage seeded to wheat is in the belt subject to the hot north winds, it is not safe to estimate on the outturn until after harvest. It is well known that even in harvest these winds have thrashed out more grain than did thrashing machines.

The local wheat market continues to hold to strong prices, owing to a heavy short interest and stock of wheat under control. The stock in the State is placed at about 160,000 tons, of which 60,000 tons will be required for food. The 100,000 tons over even without an export demand is no more than the average carryover for three years past.

An Eastern paper says that the duties in France, per provisions of the bill just passed by both branches of the French Legislature, are 26¾c per 60 pounds of wheat and $1.42½ on each 196 pounds of flour. It is understood this will go into effect immediately. It is expected to encourage the French farmers to enlarge the area of land for wheat-growing, in a year or so requiring less imports of foreign wheat and flour. There will, however, be considerable foreign wheat required in France during this crop season. The French wheat crop of 1886, per official report, was 299,000,000 bushels. The annual average requirements of France for ten years have been 341,943,100 bushels of wheat. The imports of foreign since August 1 last have been about 20,000,000 bushels. In the south of France comparatively little wheat is grown. The latest Paris advices state that considerable foreign wheat will require to be imported between April and August 1, probably 20,000,000 to 25,000,000 bushels. The gross wheat imports of France for ten years have averaged 51,095,846 bushels, or about 41,000,000 bushels net. French stocks are small, less than 4,000,000 bushels in wheat and flour in bond on March 1, 1887. The Australasian wheat crop in 1886 was about 22,000,000 bushels, which was all required for home use except about 500,000 bushels exported to the United Kingdom. It is estimated that the crop of 1887 harvested in January and February will afford a surplus in the colonies of Victoria, South Australia and New Zealand of about 13,000,000 bushels, a large proportion of which will be wanted in the colonies of New South Wales and Queensland, thus greatly reducing the quantity for export to the United Kingdom, which may reach 5,000,000 to 7,000,000 bushels in the 12 months to end December 31, 1887. It would seem from the latest information from India that Europe's supplies from that empire may be fully 10,000,000 bushels of wheat less in 1887–88 than in 1886–87.

Barley has held to strong prices throughout the past week, with only slight fluctuations. All present indications point to an almost certainty that the stock is under control. The consumption is large and increasing. Crop prospects are good, but then the acreage seeded is all of one-quarter less than last year, while the consumption is all of one-quarter greater.

Corn is steady, with a firm tone reported. The demand is only moderate, but then the stock is not large.

Oats are firm for the more choice grades. The firmness is due more to the light supply than any increase in the demand.

Rye and buckwheat continue dull.

Feedstuff.

Bran and middlings are very strong, owing to the light output of the mills—several having shut down. Ground barley and feedmeal are strong, with a fair demand reported.

Private circulars are again advising holders to sell hay, claiming that low prices will rule. They did the same last June, when this paper took a contrary view—the circulars were wrong and the RURAL PRESS correct for prices advanced. Private circular are issued in the interests of the firm sending them out and not producers. The stock of hay is not large, while the consumption is very heavy, and the prospects for a large crop this year not of the best.

Fruits.

Strawberries are coming in more freely, causing prices to shade off. The crop will be very large and of excellent quality.

Present prospects for the fruit crop could not be better. Without some unforeseen event the yield will be all of 30 per cent greater than last year. This applies to both small and large fruits.

Choice limes are scarce and high.

Lemons are in good supply, but prices are firmly maintained.

Oranges are being sent East, where a good demand rules. Last week 12 carloads were sent from Sacramento. In our market receipts continue liberal, but all coming in find a ready market. The Florida crop is placed at 1,500,000 boxes, which is largely in excess of last year's.

The stock of dried fruits is light, causing prices to rule very strong. The demand continues good.

Raisins are steady for the more choice qualities. The demand is fair for the season. The stock here is light.

The first raspberries of the season were received on Monday last, and fetched $3 per drawer.

Vegetables.

New potatoes are coming in more freely, causing some shading in price. It is claimed that the acreage is largely increased, which if correct low prices must be expected. Old potatoes are barely steady at the advance, for the high prices restrict business.

Winter cabbages hold up well; this is due to free shipments. Last week one carload was sent from Sacramento to the East, while several carloads left here. Spring cabbages of the early varieties are coming in quite freely.

Green peas continue to rule low. The quality not being such as is wanted by canners cause them to be neglected by them.

Asparagus has fluctuated to some extent, prices having been controlled by the daily receipts and demand.

Other varieties of spring vegetables come in as yet sparingly.

Live-Stock.

Slaughterers report more selling pressure, owing to herders' desire to take advantage of the fat condition of their bullocks. The pasture is reported to be most excellent, allowing cattle to retain their fat condition. Mutton sheep are offering fairly free, with some shading reported on current quotations. The consumption is not as large as was looked for in this month. Dairy calves continue to be offered quite freely. Hogs are slow, except those suitable for the block. Milch cows appear to be in better demand. Horses are about the same as reported in last week's issue.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 9c; first grade, grass fed, 8½c per lb.; second grade, 7½@8c; third grade, 6½@7c.

MUTTON—Ewes, 6½; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8¼c; small, 5@8c.

PORK—Live hogs, 4¾@5¼c for heavy and medium; hard dressed, 7½@8¾c per lb; light, 4½@5¼c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Miscellaneous.

The tonnage movement compares with last yearat this date as follows:

	1887.	1886.
On the way	228,967	215,100
In port, disenga'ged	105,478	40,093
In port, engaged	6,339	38,921
Totals	340,774	294,114

The above gives a carrying capacity as follows: 1887, 545,238 short tons; 1886, 470,582 short tons; increase over last year, 74,656.

Wool moves very slowly, causing stocks to accumulate. Shipments now made are by steamer via Panama.

Dry hides are weak and hard to sell.

Hops are in fair inquiry, but the stock now here is light.

Choice, well-conditioned fowls are scarce and in good demand, as are young fowls.

Beans are dull, but firmly held, owing to the light stock.

Honey is scarce, and in request at full figures.

Dried fruits are firmly held, with stock growing lighter, under a steady demand.

Tallow is very firm.

San Francisco, April 20, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 20, 1887

BEANS AND PEAS.				Paper shell	18	20
Bayo, ctl	2 00	2 50		Brazil	11½	13
Butter	1 60	1 75		Pecans	9	11
Pea	1 75	2 00		Peanuts	4½	5
Red	1 40	1 55		Filberts	10	11
Pink	1 25	1 45		Hickory	7	8
Large White	1 75	1 85		**POTATOES.**		
Small White	1 75	1 90		Burbank	2 00	2 50
Lima	1 75	2 25		Early Rose	1 60	1 85
Pid Peas, blk eye	1 00	1 05		Cuffey Cove	1 80	2 25
do green	1 00	1 12½		Jersey Blues	—	—
do Niles	1 25	—		Petaluma	—	—
BROOM CORN.				Tomales	—	—
Southern per ton	50	75		River reds	1 60	1 90
Northern per ton	50	75		Humboldt	2 00	2 35
CHICORY.				do Kidney	2 00	2 50
California	4	4½		Chile	—	—
German	6¾	7		do Oregon	1 65	1 95
DAIRY PRODUCE, ETC.				Peerless	1 75	2 45
BUTTER.				Salt Lake	—	—
Cal. fresh roll, lb	15	18½		New Potatoes	2	3
do Fancy br'nds	19	20		**POULTRY AND GAME.**		
Pickle roll	18	20		Hens, doz	6 00	8 00
Firkin, new	16	20		Roosters	6 00	11 00
Eastern	—	—		Broilers	5 00	8 00
CHEESE				Ducks, tame	8 00	10 00
Cheese, Cal., lb	9	11		do Mallard	3 00	—
Eastern style	12	13		do Sprig	1 00	—
EGGS.				Geese, pair	2 00	2 25
Cal., ranch, doz	17	18		do Goslings	2 50	3 00
do, store	14	16		Wild Gray, doz	75	1 50
Ducks	—	—		Turkeys, lb	21	23
Oregon	—	—		do Dressed	—	—
Eastern	14	16		Turkey Feathers, tail and wing	10	20
Utah	—	—		Snipe, Eng., doz	—	—
FEED.				do Common	—	—
Bran, ton	20 50	21 00		Doves	—	—
Cornmeal	34 00	25 00		Quail	—	—
Grd Barley ton	24 00	25 00		Rabbits	1 00	—
Hay	10 00	14 50		Hare	1 25	—
Middlings	24 00	25 50		Venison	—	—
Oil Cake Meal	26 50	28 50		**PROVISIONS.**		
Straw, bale	40	60		Cal. Bacon, Heavy, lb	9	10
FLOUR				Medium	9	10
Extra, City Mills	4 70	5 45		Light	11	12½
do Co'ntry Mills	4 20	5 20		Extra Light	13	13½
Superfine	3 45	4 20		Lard	8	12
GRAIN, ETC.				Cal. Smoked Beef	11½	13½
Barley, feed, ctl	1 05	1 12½		Hams, Cal	11	14
do Brewing	1 10	1 20		do Eastern	14	15
Chevalier	1 45	1 60		**SEEDS.**		
do Coast	—	—		Alfalfa	8	9
Buckwheat	1 00	1 20		Canary	3½	4
Corn, White	1 07½	1 15		Clover red	10	12
Yellow	1 05	1 10		White	15	17
Small Round	1 10	1 20		Cotton	20	—
Nebraska	1 05	1 10		Flaxseed	2	—
Oats, milling	1 85	1 90		Hemp	4	4½
Choice feed	1 70	1 75		Italian RyeGrass	25	—
do good	1 60	1 70		Perennial	7	9
do fair	1 45	1 55		Millet, German	4½	5
do black	—	—		do Common	2	10
do Oregon	—	—		Mustard, white	2 00	2 75
Rye	1 10	1 25		Brown	2½	3
Wheat milling. Gilt edged	1 75	—		Rape	1½	2
do choice	1 72½	—		Ky. Blue Grass	10	13
do fair to good	1 67½	—		2d quality	11	12
Shipping choice	1 70	—		Sweet V. Grass	75	—
do good	1 65	—		Orchard	20	25
do fair	1 60	—		Red Top	15	—
HIDES.				Hungarian	8	10
Dry	—	16		Lawn	30	40
Wet salted	8	9½		Mesquit	10	12
HONEY, ETC.				Timothy	5½	—
Beeswax, lb	20	22		**TALLOW.**		
Honey in comb,	9	12		Crude, lb	5	
Honey in comb, fancy	13	14½		Refined	6	
Extracted, light	4½	5		**WOOL, ETC.**		
do dark	3½	4½		SPRING—1886		
HOPS				Humboldt and Mendocino	18	21
Oregon	17½	20		Sac't'o valley	14	17
California	15	20		Free Mountain	17	18
ONIONS.				N'hern defective	—	—
Pickling	—	—		S Joaquin valley	10	13
Silverskin	2 00	3 50		do mountain	13	15
NUTS—JOBBING.				Cava'v & F'to'l	13	15
Walnuts, Cal., lb	12½	13½		Oregon Eastern	15	20
do Chile	—	—		do valley	18	22
Almonds, hd shl	5	7		Southern Coast	9	10
Soft shell	15	19				

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 20, 1887.

Apples, bx com	1 00	1 50		do evaporated	16	18
do choice	1 75	2 25		Peaches	8	10
Bananas, bunch	2 00	3 25		do pared	18	20
Blackberries, ch	—	—		do evaporated	20	30
Canteloupes, cr	—	—		Pears, sliced	5	6
Cherries blk	—	—		do qrtd	4	5
do Royal Ann	—	—		do evaporated	8	10
Cherry plums	—	—		Plums, pitted	9	10
Crabapples	—	—		do unpitted	3	5
Cranberries	10 00	12 50		Prunes	8	10
Currants chest	—	—		do French	10	13
Figs, bx	—	—		Zante Currants	8	—

Grapes	— @ —	RAISINS.	
do Rose Peru	— @ —	Deseas Clus, fcy	2 40 @ 2 50
do Muscat	— @ —	Imperial Cabinet, fancy	1 75 @ —
do Tokays	— @ —	Crown London	1 50 @ —
Isabel	— @ —	do Layers	1 50 @ —
Wine Malfandel	— @ —	do Loose Muscatels, fancy	1 40 @ —
do Mission	— @ —	do Loose Muscatels	1 35 @ —
Lime, Mex	— @ —	Cal. Valencias	1 25 @ —
do Cal. box	1 50 @ 3 00	do Layers	1 25 @ —
Lemons, Cal., bx	1 50 @ 2 00	do Sultanas	1 25 @ —
do Sicily, box	4 50 @ 6 00	Fractions come 25, 50 and 75 cents higher for halves, quarters and VEGETABLES.	
do Australian	— @ —	Artichokes, doz	— @ —
Nectarines box	— @ 1 75	Asparagus, bx	75 @ 1 25
Oranges, Com box	1 25 @ 3 00	do cultivated	— @ —
do Choice	2 00 @ 3 00	Okra, dry, lb	15 @ 20
do Navels	3 50 @ 5 00	do green box	— @ —
do Panama	— @ —	Parsnips, cal	1 50 @ —
Peaches, box	— @ —	Peppers, dry lb	10 @ 30
do Crawfords, bx	— @ —	do green, lb	25 @ —
do bskt	— @ —	Pumpkins per lb	— @ —
do choice	— @ —	Squash, Marrow	10 00 @12 00
Pears box	— @ —	do Summer bx	— @ —
do choice	— @ —	String beans lb	25 @ 30
do Bartlett, bx	— @ —	Tomatoes box	2 00 @ 2 50
Persimmons	— @ —	Turnips ctl	25 @ 50
Pine, Hawaiian, doz	4 00 @ 5 00	Beets, sk	75 @ —
Pineapples, doz	— @ —	Cabbage, 100 lbs	1 30 @ 1 55
Pomegranates, b	— @ —	Carrots, sk	— @ —
Prunes bx	— @ —	Cauliflower, doz	— @ —
Quinces bx	— @ —	Eggplant, lb	— @ —
Raspberries dr	2 00 @ 2 50	Garlic, lb	10 @ 25
Strawberries dr	75 @ 1 00	Green corn,	
Watermelons 100	— @ —	small box	— @ —
DRIED FRUIT		do large box	— @ —
Apples, sliced, lb	7 @ 11	Green Peas, sk	50 @ 75
do evaporated	4 @ 12½	Sweet Peas	1 00 @ 1 50
do quartered	13 @ 15	Tomatoes box	25 @ 50
Apricots	20 @ 25	Turnips ctl	25 @ 30
do evaporated	9 @ 11	Rhubarb lb	2 @ 5
Blackberries	28 @ 30		
Citron	9 @ 10		
Dates	6 @ 6		
Figs, pressed	5 @ 6		
Figs, loose	3 @ 4		
Nectarines	8 @ 10		

TRADE MARK.

KOCH & REIS'

BELGIAN



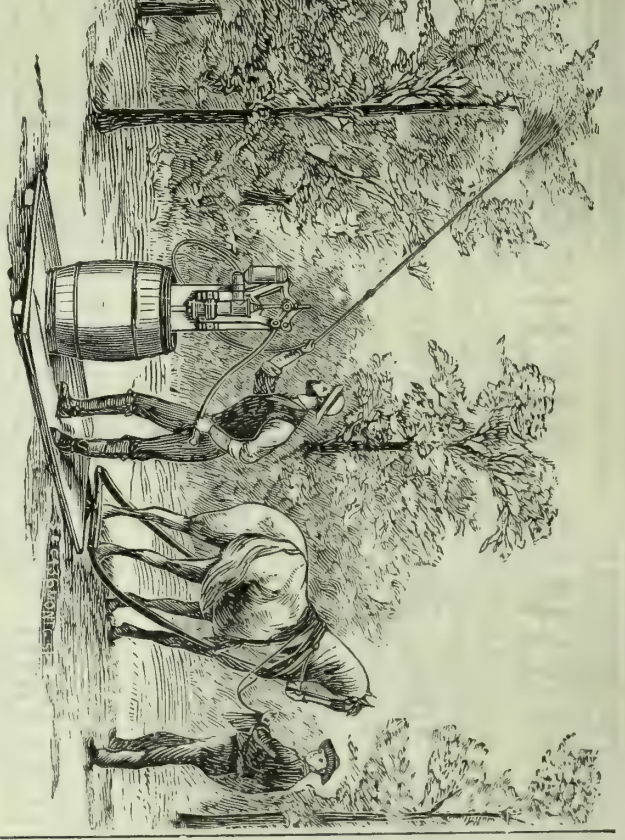
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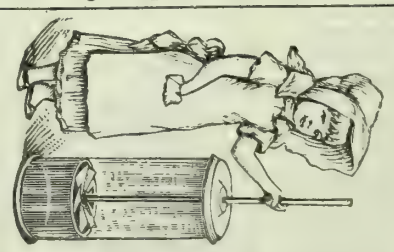
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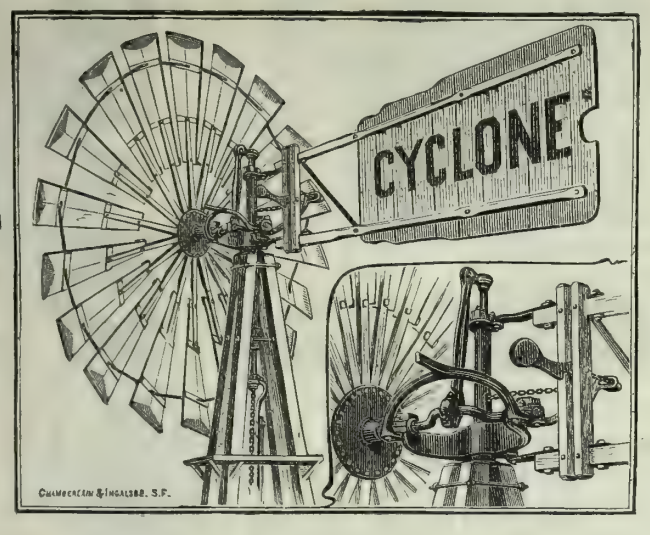
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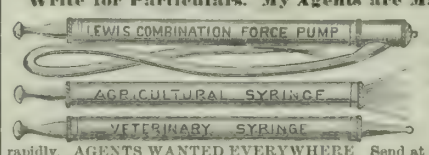
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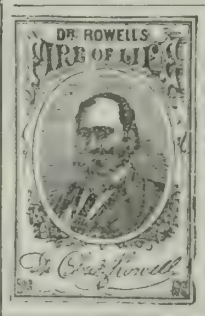
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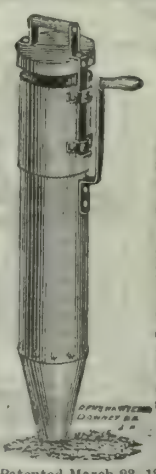
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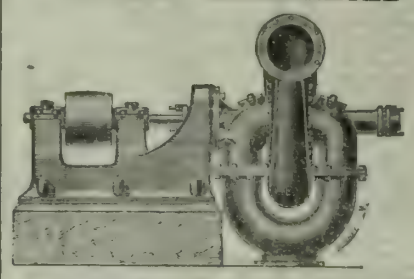
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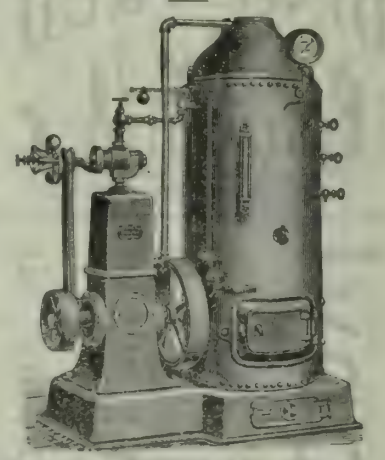
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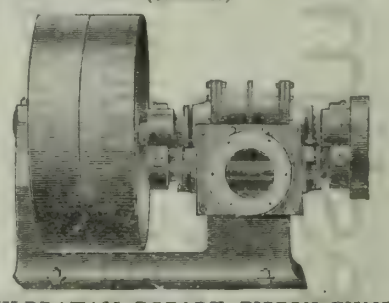
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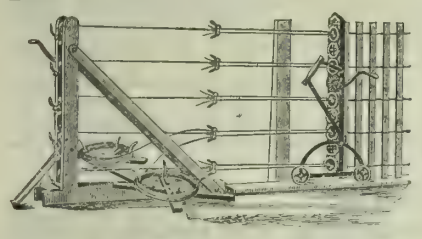
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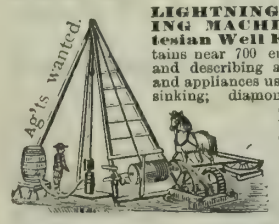
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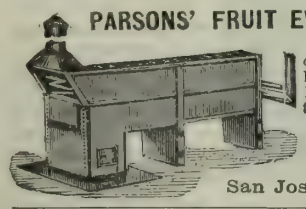
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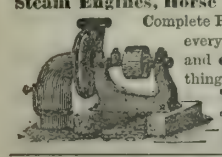


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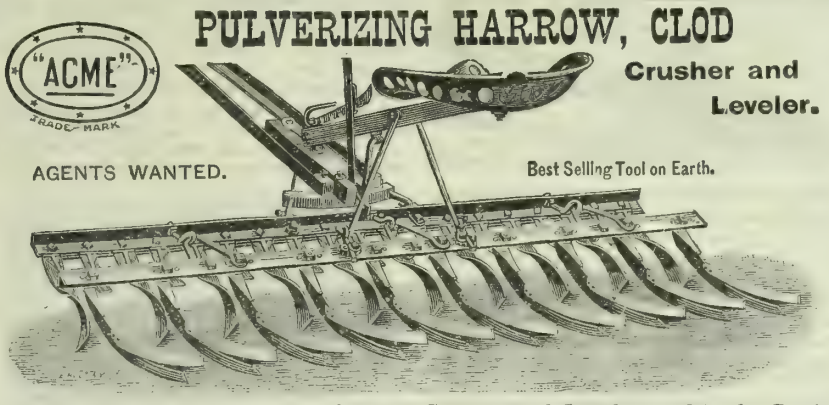
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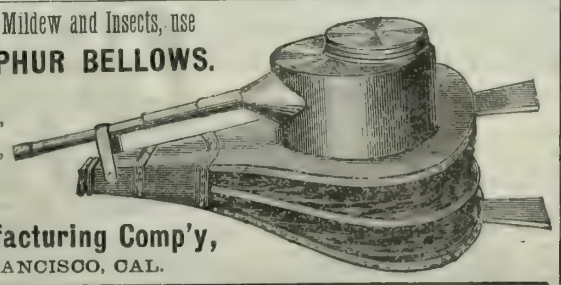
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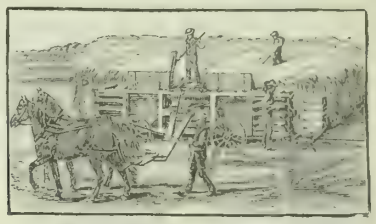
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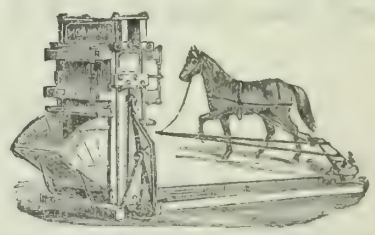
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Has three or four times the capacity of Eastern-made presses, with the same number of men and horses.

Price, at factory, San Leandro, Cal., **$1000.**



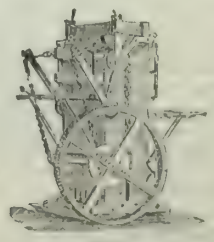
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Does its own Tramping. Feeds at Side, near the Bottom.

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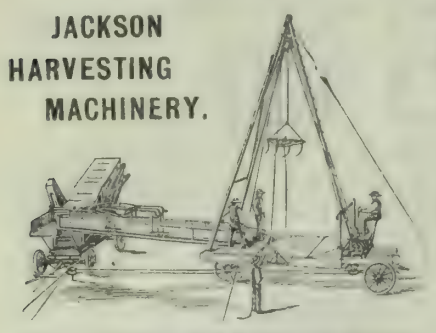
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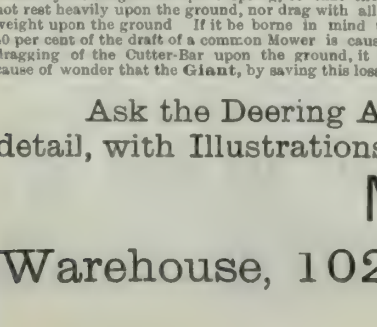
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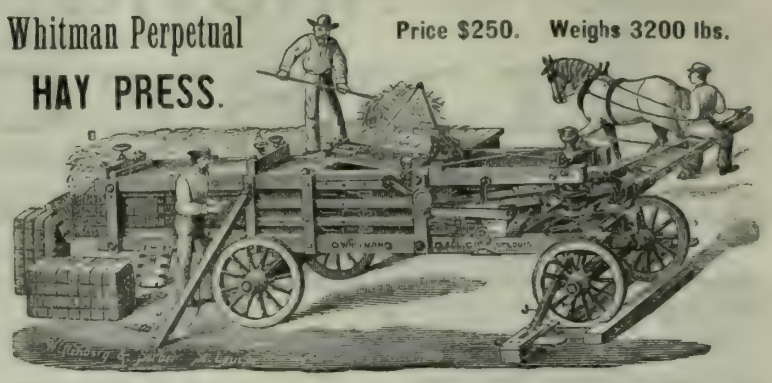
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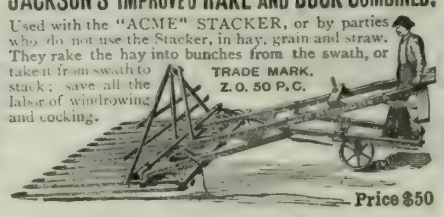
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This Press is constructed of the best of materials and in first-class, workmanlike manner, which enables it to endure the great strain required. The power, which is entirely and fully protected by patents, consists of a bell-crank lever, slotted pitman and peculiar sweep or lever. The pitman is made of a combination of wrought iron, steel and wood, making it entirely proof against breakage. The bearings are all of steel, making the most durable machine in use. With the patent self-opening door a much larger charge of material can be placed in the press, and as it has more power than any other, it is much more rapid in its work. The bell-crank lever and slotted pitman are arranged with a series of holes in order that the leverage or power may be readily changed, so that one horse at the short hitch can press a bale to about the same solidity as two horses at the long hitch. It also has an arrangement by which you can instantly make the pitman and sweep rigid, for withdrawing the plunger in commencing operating, or in case the plunger may become fast from any cause.

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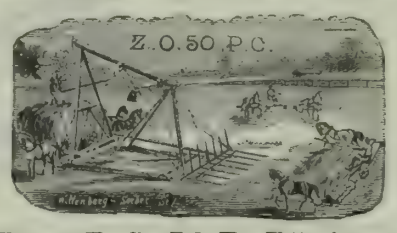
Used with the "ACME" STACKER, or by parties who do not use the Stacker, in hay, grain and straw. They rake the hay into bunches from the swath, or take it from swath to stack; save all the labor of windrowing and cocking.



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Does the work of all other Hay or Horse Rakes, viz., wire rakes, sulky rakes, revolving rakes, buck rakes and "go-devils." It rakes from the swath, and leaves the hay in large bunches at once, **requiring no hand-work.** One man and two horses will keep up with two mowers, following the mower as soon as the hay is wilted enough to be raked clean with any rake. It rakes **cleaner.** The hay will cure **quicker** without bleaching by dew or sun. Very large bunches can be made by pushing from two to six rakefuls into one.

If raked and bunched by my Improved "Acme" Rake, the hay is in very much better shape to reload and deliver on the Stacker evenly and level (loading the rakes all they will carry to the Stack), and spreads well over the stack, saving labor in stacking, because it has not been tangled, as it is when gathered with the sulky or revolving rake. Bear in mind that wind-rowing hay with any rake is labor thrown away, and is detrimental to the neat and most economical working of the "Acme" Hay Harvesting Machinery.



The "Z. O. 50 P. C." Acme

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Price $100.

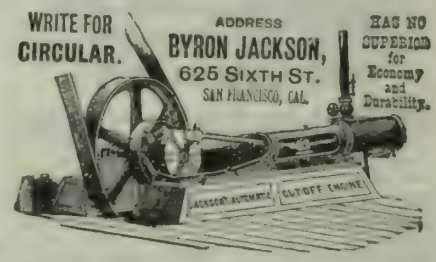
Weighs 1100 lbs. and Stacks 18 to 25 feet. Over 10,000 have been sold.

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HAS NO SUPERIOR for Economy and Durability.



This engraving represents one of the several styles of stationary engines which I build. I build all sizes for all purposes, and make a specialty of pumping and electric light engines. I build cabinet, or self-oiling engines, which require less skill and care than any other, and are therefore better adapted for use on farms, etc., where skilled help is not obtainable. I also build boilers, and am prepared to submit bids for steam-power plants from 4 to 200-horse power.

If you need an Engine or Pump, write me before buying elsewhere.

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DEERING "GIANT" MOWERS

MANUFACTURED BY

WM. DEERING & CO., CHICAGO, ILL.

Very Strong, Very Economical, Very Light Draft.

THE "GIANT" found no grass in the heavy cutting of last season (1886) which it did not successfully handle; in several instances it was taken into grass that had been given up as being uncutable by other Mowers cutting only 4 feet, at the same time the "GIANT" was cutting a 6-foot Swath.

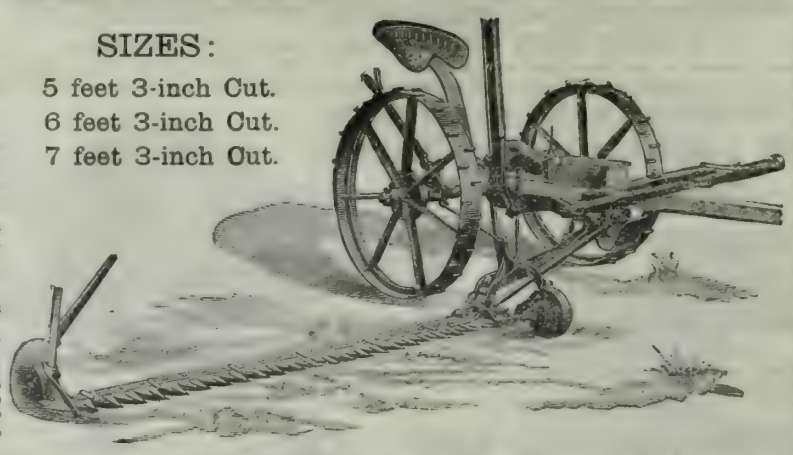
Intending purchasers of Mowers would consult their own interest by calling upon the local agent and examining into the merits of the "GIANT" before purchasing any other Mower. It is sold under a full guarantee, and intending purchasers are furnished the "GIANT" on Trial.

For doing an immense amount of cutting in a given time, and for leaving the grass in the very best shape for drying, the **Deering Front-Cut Giant Mower** has no equal. With its immense Cutter-Bar of 5 and 6 feet, it is well equipped to do almost **double** the amount of cutting that can be done by the common four-foot Mower, the only thing other factories have to offer to their customers. While the **Giant Mower** can do a giant's work, or about double that of the little Mowers, yet a team of ordinary horses draw it with ease day after day. In short, its draft is little if **any** greater than a common Mower. It is a continual source of wonder to farmers who see the **Giant** for the first time, how a Mower cutting such an **unusual** swath of 6 feet, can be pulled with so much ease by a small span of horses.

The whole secret of the wonderful light draft of the **Giant** Mower lies in the following four facts:

1st, and most important: The Cutter-Bar is supported by a strong **steel** spiral spring, so that the Bar does not rest heavily upon the ground, nor drag with all its heavy weight upon the ground. If it be borne in mind that about 40 per cent of the draft of a common Mower is caused by the dragging of the Cutter-Bar upon the ground, it will be no cause of wonder that the **Giant,** by saving this loss of power,

SIZES:
5 feet 3-inch Cut.
6 feet 3-inch Cut.
7 feet 3-inch Cut.



can turn it to cutting almost double the width of swath done by an ordinary Mower. In addition to the economy of power, there are some incidental advantages. It is free from side-draft. There can be no side-draft if the Cutter-Bar does not drag upon the ground. Another advantage had by having a supporting spring, is that the driver is assisted in lifting the Bar by the spring. Still another advantage is the increased traction gained by throwing the weight of the Bar and Drag-Bar upon the wheels.

2nd. The **GIANT** pulls easy, because of its **High Drive Wheels.**

3rd. It pulls easy because of its **large** and perfect-fitting **gears.** In the Giant there is no gear-cutting nor gear-grinding. Every part fits perfectly.

4th. It pulls easy because the shafts are small where they enter their bearings.

We feel a just pride in the **Front-Cut Giant** for the remarkable record it has made since its first introduction. Every farmer who has written us speaks enthusiastically of its wonderful cutting powers, its light draft for two horses, and its freedom from side-draft.

The advantage of course in buying a Giant is **Economy.**

Ask the Deering Agent in your town, or address us for Special Circulars describing our machines in detail, with Illustrations.

M. K. LAUDEN, General Agent,
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PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 18.] SAN FRANCISCO, SATURDAY, APRIL 30, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

Forestry Societies.

We are glad to see in several neighborhoods a disposition to form forestry or tree-planting societies. In this way the beneficent work of the Forestry Commission can be localized and promoted, for we have no doubt but that the Commission will be glad to recognize local associations as tributary to its own, and to foster their work. By a law of the late Legislature, the powers and resources of the State Board were enlarged. Important work is to be undertaken against violation of timber laws, and in this direction the help of many local societies would make the State Commission Argus-eyed, and strengthen its position in the public mind. We believe the Commission intends also to extend its efforts in the publication of practical information tending to promote tree-planting, and perhaps to furnish some needed materials. A local association will enable the Commission to direct this work intelligently and to be sure of placing publications or materials in good hands. Take for example the last report of the Forestry Commission, which is an excellent publication. It could, no doubt, be furnished to members of local societies, and thus would reach many more people than would otherwise apply for it. We have many useful local societies in this State, but there is also abundant field for a fine list of forestry clubs or societies. We are glad to record the organization of such a society last week at Santa Maria, in Santa Barbara county. It is too late, of course, to plant this year, but it is none too early to secure membership and lay plans for next season's planting. It is proposed to secure subscriptions for the purpose of planting belts of timber across the valley, a half-mile or mile apart; also to set trees in other situations. To secure the trees the society proposes to plant tree seeds in quantity in a piece of land, the use of which is given to them by the owner. This will be a good idea if the nursery is well taken care of. Where such an enterprise does not seem feasible it will be easy to get tree-growers to contract to produce and set out trees very cheaply if a large quantity is contracted for. There are many ways in which any neighborhood may largely increase and improve its arboreal environment if residents will work together toward that end.

The Santa Maria Society organized last week by choosing the following officers and committees: C. W. Merritt, chairman; L. E. Blochman, secretary; Murray, Jr., treasurer. Committee on Finances: J. Kaiser, Dr. Bagby, Mr. Murray, Jr., and Dr. W. T. Lucas. Committee on Forestry: W. L. Adam, J. F. Goodwin, L. E. Blochman, E. Morrison, M. P. Nicholson and C. W. Merritt. Another meeting is to be held this week. We have one suggestion to make to our Santa Maria friends, that they make haste to round out their society by placing ladies in membership and on the officer list. The ladies are a strong and enduring force in such enterprising endeavors, and their aid should be courted.

The Del Monte Fire.—E. T. M. Simmons, late manager of the Hotel del Monte, is under arrest as the incendiary. It is charged that he set fire to the hotel in order to destroy the books containing the evidence of his defalcations. He was convicted of embezzling the funds of a savings bank in Pennsylvania 10 or 12 years ago and sentenced to prison, but was pardoned within two years and came to California.

Spanish Grapes in April.—In the Press for January 1st, we spoke of a sample of Almeria grapes, kindly sent us by Weinstock & Lubin, which had crossed the Atlantic in corkdust packing and came out in remarkable freshness. A portion of that fruit having been buried again in the corkdust, has been lying in our editorial rooms for the past four months. A few evenings ago we turned it out and found that, while many of the berries had rotted, and those that had not were much shriveled, there was still a considerable quantity fairly eatable. We noticed a slight puckery taste in them, however, which may have been due to the material in which they have lain so long, or to some change in the internal composition of the fruit itself.

The Oregon Railway and Navigation Co. has leased its railroad to the Union Pacific. This change of management is said to give great satisfaction in Portland, as the O. R. & N. Co. has been regarded as very oppressive in its freight charges, and the U. P. is expected to pursue a more liberal policy.

Mr. S. P. Blade writes the Rural from Daggett that a fine ranch in Death valley has recently been sold to parties from Los Angeles and Santa Ana. It is near what is called the Death Valley ranch.

A Freak of the Yucca.

To those crossing the Mojave, the yuccas are objects of constant interest. Their verdure in the midst of arid wastes is a great surprise. The strange and almost fantastic forms which they assume excite wonder and give full play to the imagination in investing them with grotesque significance. The correct form of the tree is upright, with quite a symmetrical arborescent outline; but their insecure rooting in the desert sand places them at the mercy of the frequent windstorms and they are seen distorted and misshapen. The engraving shows one of the most interesting of the freaks to be seen on the desert. The top has evidently proved too heavy for the trunk, and it has gradually sunk to one side until it has returned to the plain and become imbedded in the sand. Storms have no doubt contributed to this result, but the trunk was too strong to break and the rooting too secure to let go its hold, and the result is that the tree assumes arch form, and now, braced at both ends, bids fair to defy the elements for years to come.



Photo. and Copyright by C. R. Savage.

CURIOUS GROWTH OF A YUCCA ON THE MOJAVE DESERT, CAL.

Our engraving is from a copyrighted photograph by C. R. Savage, now a resident of Salt Lake City, and our reproduction is by his special permission. The arch is broad enough to allow several horsemen to ride abreast beneath, and its hight, as shown by the figure of the man, is probably from 12 to 15 feet at the apex. From the upper surface, as the picture shows, a single branch has approached the vertical as nearly as possible, and may yet form quite a tree-head at this point.

This yucca of the Mojave is the tree from whose trunk most excellent pulp is obtained for paper-making, and its manufacture is now being carried on by an English company, furnishing paper stock for the London *Telegraph*, as has already been described in our columns. The *Telegraph* made a wide study of paper-making materials in various parts of the world, and decided upon the yucca of the Mojave as the best source obtainable.

Lake County has appointed men to solicit subscriptions for the $75,000 bonus asked by the San Francisco and Clear Lake Railroad.

HORTICULTURE.

The Riverside Convention.

(Concluded from our last.)

In accordance with previous announcement, the citizens of Riverside, with their wives and families, met at the Pavilion on Tuesday evening, in public gathering, to give an opportunity for their visitors from abroad and the members of the convention to become better acquainted with each other, and to have an hour or two of social enjoyment. The hours were very pleasantly spent in reviewing and discussing the merits of the splendid fruit on exhibition—the cold-storage question—as exemplified by the exhibit, etc.

The Convention an Open One.

It may be remarked in this connection that the conventions are essentially open meetings, held simply under the auspices of the State Board, at which any fruit-grower, or any other person in fact, who is interested in the industry of fruit-growing, may participate in the discussions. The object of the meetings is to bring out facts and experience from any and all sources by which the great industry of fruit-growing may be benefited. It is also one of the objects to create a greater interest in the matter among our citizens generally. The subjects discussed are all of vital interest to this great industry, and to the welfare and material progress of the State in general.

It is to be regretted that the citizens of Riverside generally, and the people from the southern counties generally, have not taken a greater personal interest in the matter and made it manifest by a more general attendance upon the meetings. But, as was remarked by President Cooper in his opening address, the chief reason why the people of Riverside and vicinity failed to take a more general interest in the matter was, because the questions chiefly discussed did not concern them; they have no insect pests, and therefore have no interest in learning how to get rid of them. Their orchards and vineyards are clean—root and branch.

Wednesday's Session.

The convention after coming to order, on motion of I. A. Wilcox, passed a vote of thanks to Prof. Riley for his valuable and instructive address.

Mr. Block gave a report of the committee in regard to a reduction of the rate on fruit shipments to the East. Messrs. Crocker and Huntington were disposed to comply with their request, but Mr. Stubbs was stubborn. Then they applied to the Chamber of Commerce, which telegraphed to Washington. Mr. Stanford replied that the concessions should be made unless good reasons existed to the contrary. Mr. Towne assented if the Interstate bill did not interfere. No positive answer is yet received. Mr. Block thought we should aid with the Fruit Union to hold Mr. Towne to his promise.

N. R. Peck, of Placer, offered the following:

Resolved, That all associations and persons interested in the growth and development of the fruit interests of the State are requested to use their individual and combined influence, by petition to the Interstate Commission, to provide the relief in transportation so necessary to the very existence and future advancement of fruit culture in California.

Mr. Wilcox urged combination. Two years ago we paid $800 a car for fruit sent East. Soon we got cars for $600. This and other concessions were only won by combined effort. The Interstate law is all that now stands in our way.

Dr. Kimball wanted all unions shipping fruit to co-operate. The resolution was then adopted. The following resolution, drawn up by Dr. Chubb, was then read by the secretary:

Resolved, That a committee of three be appointed by the President to prepare a memorial to Congress setting forth the needs of this coast in the matters of exterminating insect pests, and asking an adequate appropriation to be used by the Division of Entomology in the Agricultural Department of the United States in the investigation of the parasites and predacious insects of the white scale and all injurious scale insects in its native country—Australia, and their introduction to this country.

The resolution was adopted by the convention.

The excellent suggestion of Mr. Block that each representative and senator be sent a copy did not receive action.

At this point the essay by Mr. A. S. Chapman, of San Gabriel, was called for and was as follows:

Fertilization of Orange Orchards.

Plants feed on the same elements, but in varying proportions. Among the most important may be mentioned phosphoric acid, potash, lime, magnesia and nitrogen, which are found only in small available quantities in the soil, although they may exist in large quantities in an unavailable condition.

According to Prof. Johnson, "from 95 to 99 per cent of the entire mass (weight) of agricultural plants is derived directly or indirectly from the atmosphere."

"And from the atmosphere the crop can derive no appreciable quantity of those elements that are found in the ash."

To the soil, therefore, must we look for our supply of plant food, by rendering available the inert material, and when that quantity is too feeble to supply artificially what it be deficient in.

The soils of Southern California, Prof. Hilgard says, are generally deficient in phosphates—a most necessary constituent of plant food and generally the first to become exhausted. They are, as a general thing, rich in potash. The supply of nitric acid, the conveyor of nitrogen to the plant, depends greatly on ourselves. Nitrates are formed by the oxidation of ammonia in the soil, derived from the slow decay of organic matter, and proceeds most rapidly at a temperature of 70 to 80° F., which accounts for an abundance of acid in the summer and a lack of same in early spring. The formation of nitrate of potash is a most interesting study to the farmer. Only within the past few years has it been discovered that the nitrate is formed through a fermentation produced by bacteria, in the presence of humus, lime and potash.

The carbon of the plant is derived through the leaf from the carbonic acid of the atmosphere; therefore may weeds become beneficial to the soil. By being matured and plowed under they keep the soil in a fine mechanical condition, retentive of moisture. They supply nitrogenous material for oxidation into nitric acid. They supply the water of the soil with carbonic acid, which has a "high solvent power on the carbonates of lime, magnesia, protoxide of iron, and protoxide of manganese. When carbonated water comes into contact with siliceous minerals they are decomposed much more rapidly than by pure water."

The general mode of fertilizing in this country seems to be principally tillage, with an occasional dressing of some manure once every two or three years, and copious irrigation. Now it would seem that this constant irrigation with pure water, as it is in the San Gabriel valley, would wash from the soil its soluble salts, not only depriving it of them but to an extent leaching and making the soil less subject to hydroscopic water. And again, when thorough tillage is resorted to, to the exclusion of manure, it stimulates the soil beyond the power of endurance, its vegetable mold is rapidly used up, the available phosphoric acid reverts to an insoluble condition, and the soil thus left in its primary condition is subject to bake and form hardpan. And again, where heavy manuring is resorted to, say once in three years as is sometimes done here, then do parts of the plant food revert to an inert form and the great quantity of organic matter becomes acid and sours the soil, unless it be an exceedingly calcareous one.

On my father's place at San Gabriel we choose to manure lightly and often by shoveling sheep manure into the irrigating ditches, allowing each tree to receive about 25 pounds at each separate irrigation. Our basins cover the entire surface of the ground. We make no effort to choke such weeds as clover, alfileria and the like; but the irrigator with his hoe destroys the obnoxious nightshade, horehound and nettle.

In the fall of the year we follow with a copious liming—about three barrels of unslacked lime to the acre—applied in the following manner, at the head of our irrigating ditch: We plant a box about three feet wide, six feet long, two feet deep and six inches under the surface of the running water. In it we place a barrel of the lime. It slacks and swells to twice its original bulk. A man stands on this with his hoe and sees that the water carries it off evenly. With an irrigating head, such as we use, a man will run into the ditch four barrels a day, or about three barrels to the acre.

We now leave the orange orchard till spring, when we plow under weeds, manure and lime. We thus aim to supply our soil with nitrate of lime, potash and magnesia. Carbonic acid gas is absorbed by the water and attacks the inert plant food in the soil; hardpan is prevented both by the mechanical effects of the vegetable matter and the lime.

The Allegretti Process.

The president then took up for discussion that portion of the program under which the different processes for the preservation of fruit in shipping belonged, and called upon the secretary to read the letter written to the convention by Mr. Allegretti, describing his patent process for the preservation of fruit.

WEST BERKELEY, April 9, 1887.

To the President and Members of the Horticultural Convention and Citrus Fair, assembled at Riverside April 11, 1877:

Mr. President and Gentlemen of the Convention: Noticing that the second subject of discussion on your program is that of preparation, marketing and disposing of fruit, and being in possession of some facts that I believe to be of great value to the fruit interests of this coast, and bearing principally on those points, I have taken the liberty, and this means (being unable to attend personally) of laying them before you, and will do so in as few words as possible.

After 20 years of experimenting and study, I have perfected the process known as "The Allegretti Air-Purifier and Preserving-Room System," which is secured and covered by three different patents. It consists of building a receiving-room or treating-house of any capacity agreed upon, in which the fruit can be stored and treated, just as it comes from the orchard, without changing the original package or box; the time required for treating is from one to five days, according to the quantity; fruit so treated can be put on fruit car without any other preparation, and will keep from six to eight days.

When a longer period is needed in transit, say from 8 to 16 days, the car can (at a trifling extra expense) be so prepared that it will keep the fruit that length of time. If it should, however, be desired to ship the fruit as ordinary freight, then the car could be so prepared—after the plan of the treating-house—so that a 30-days' transit would be no injury to its contents; again, should the market at that point of destination be glutted, a receiving-house might be built into which the cars might unload, and their contents be held for a better market.

These treating-houses can be built at any place desired, and after instruction are easily managed.

One of the advantages of which is, that the fruit may be picked as it ripens, put into the treating-house and kept there, in its perfect, natural state until there is sufficient to load a car if so desired.

The principal item of expense in this system is the building of the treating-house, which will vary according to its capacity; the cost of treating the fruit, especially in large quantities, being nominal; smaller lots, say from 10 to 20 tons, will not exceed one-quarter of a cent per pound.

Fruit preserved by this process differs from that preserved in refrigerators, in the fact that the latter commences to decay almost immediately after it is taken out, while the former will stand longer even than when first picked from the tree or vine, as the case may be.

For the corroboration of the above facts, I respectfully refer to Messrs. A. T. Hatch, Suisun; C. F. Crocker, San Francisco; W. W. Smith, Vacaville; Dr. Strentzel, Martinez; I. A. Wilcox, Santa Clara; and Professor E. W. Hilgard, of the University of California. Any further information on the subject will be cheerfully given upon application.

Yours most respectfully, I. ALLEGRETTI.

Cold Storage.

Mr. Stowe, of the Interocean Cold Storage Company, was then requested to present facts concerning his methods. He accordingly gave an interesting statement of the work as done by his company. It was the elimination of the moisture from the rind of the fruit as much as in the cooling of it that effected such satisfactory results. There was no secret about their process. There was the fruit, which the convention could examine after its 62 days' storage. Some of it, after 48 days' storage, had been taken out into a temperature of 85° or 90°, and after 16 days' exposure to all kinds of temperature could now be examined. Not a specimen but was as firm and excellent as when put in. This was an effectual answer to the statement that fruit taken from cold storage would "go down" on exposure. The fact was, moisture and heat caused decay. The extraction of moisture made it possible to save all the length of life of which the fruit was possessed when it went in.

Committees Appointed.

The following special committees were appointed to-day to report to-morrow: Committee on Cold Storage—L. M. Holt of Riverside, Dr. O. P. Chubb of Orange, I. A. Wilcox of Santa Clara, N. W. Blanchard of Santa Paula, Ventura county, and W. B. Ewer of San Francisco, one of the publishers of the PACIFIC RURAL PRESS.

Committee on Fruit Exhibit—E. W. Holmes of Riverside, A. S. Chapman of San Gabriel, and Rev. N. R. Peck of Placer county.

Dr. Woodhill placed on exhibition this morning the silk produced in Riverside the past season, by silkworms fed on osage orange leaves. It has attracted much attention. The cocoons were sent to the State filature, where they were reeled, and the reeled silk returned, as beautiful a specimen of that product as can be found anywhere.

Thursday—The Last Day of the Session.

On calling the convention to order this morning, President Cooper expressed the hope that the convention might be able to conclude its labors by 11 o'clock A. M., as several members were anxious to take the afternoon train for Los Angeles.

The first thing in order was the reading of the report of the Committee on Cold Storage. The report is quite lengthy and instructive. It sets forth the value of cold storage, for both oranges and lemons, in a manner which cannot fail to attract the attention of orange-growers throughout the State. So far as experience has thus far shown, it is one of the most important factors yet introduced in the keeping and transportation of citrus fruits. We shall publish the report entire at an early day.

The Committee on the Fruit Exhibit was next called upon for their report. The substance of this report will be given in our editorial report of that exhibit, which will probably have to be deferred until our next issue.

The Next Meeting—A Speech by General Vallejo.

In regard to the next meeting of the convention in November, it was voted that the matter be referred to the action of the State Board. Mr. Wilcox extended an invitation to the convention to meet at San Jose. Gen. Vallejo extended the same invitation for Santa Rosa or any other town in Sonoma county.

The General made a very happy and interesting speech of considerable length, in which he expressed the pleasure he had enjoyed in meeting with the fruit-growers at Riverside. He was now here for the second time in his life. His first visit to the San Gabriel and San Bernardino valleys was made over 60 years ago. He was then on a military expedition and was accompanied by Father Boscano. He instituted a comparison between what he saw then and now. At that time the country seemed to be full of stones and thorns—desolate and almost uninhabited. It was purgatory; it was now a veritable Garden of Eden. The change from that time to the present seemed to him like an Arabian Nights' entertainment. In looking at the large golden fruit displayed upon the tables in the Pavilion, rivaling in size anything of the kind he had elsewhere seen, it seemed as if the people of Riverside had been grafting oranges on pumpkin-vines! The General's speech was received with much applause, mingled with mirth. Several other short speeches were made during the closing hours.

Apologies were made by Mr. Holt and Rev. Mr. Deere for the slim turnout by the citizens of Riverside. The latter in a humorous vein depicted the aversion of the average Riverside to anything which looked like a cloud or felt like a mist. [It had been raining more or less during the last two days of the session.] A Riverside audience never materialized if it had the excuse of a sprinkle; nothing but clear sunshine would bring them out from their shady orange groves in great numbers.

A Compliment for Riverside.

Mr. Block, of Santa Clara, complimented the people of Riverside upon the absence of one pest, which was quite general in most other parts of the State—the liquor saloon. Mr. Holt remarked that the remedy for that pest was a city license of $2000 a year, and a county license of $300. The solitary saloon in Riverside paid $2300 a year for the privilege of existence.

Just before the motion was made to adjourn, Mr. Block moved, and it was unanimously carried, that the convention tender a vote of thanks to Mr. L. M. Holt, of the Riverside *Press*, for his efforts in behalf of the convention. A similar motion was also made and carried in behalf of Mr. LeLong, of Los Angeles, for his valuable services in the same direction.

We would take this occasion to express our personal thanks to Mr. Holt for various attentions during our stay at Riverside. The convention adjourned at 11 A. M.

DEATH OF A PIONEER ORCHARDIST.—Joseph W. Briggs, the well-known orchardist of Alviso Township, died at his residence on the Trimble road, about two miles north of this city, Tuesday evening. Mr. Briggs was a native of New York, 54 years of age. He came to California from Ohio, with three of his brothers, in 1850, and settled in Marysville, where they planted the first orchard ever set out in California. In 1870 Mr. Briggs located in this county on the place where he died. It consists of 120 acres and is one of the best orchards in the State, and contains about 10,000 fruit trees, including nearly every variety. A wife and three grown sons remain to mourn the loss of a good husband and father.—*San Jose Mercury.*

THE APIARY.

Securing Swarms.

EDITORS PRESS:—In the first place, I look through all my queens early in the season, and clip part of one wing. My hives are about four inches from the ground. When the swarm comes out, I look for the queen in front, on the ground. I give the bees all possible egress at the entrance, to get them all out quickly. Finding the queen, I put her in a cage and place the cage in the shade; I then remove the hive, or face it the opposite way, at the side near the old stand. I then place a new hive on the old stand with empty frames, giving one of the old combs containing unsealed brood in the center.

Now for the bees. I use an empty starch-box or something of the same size (12-pound box). I fit a false end near the lower end (of one inch stuff) just the size of the end, giving about two-inch space. I then fit a pole (old rake-handle or something similar) through the ends, and drive a nail through both outside parts, to keep the pole and box from slipping. One side of the box is open; on the other three sides, I bore five or six inch holes around a central hole. I now am ready for the swarm. In case I find that they are not settled, I shake the bees from those combs that are not sealed, in front of the hive, saving enough to cover the brood in the old hive. Sometimes the bees hearing the humming near the hive will return, and cluster in front of the hive, then by letting the queen loose, and seeing her go in at the entrance, the bees will soon find it out and hive themselves. The next day, give them all combs necessary, and as soon as they get fairly at work put on the sections, and they will soon find them to store their surplus. I like to get the queen laying in the brood combs before putting on sections. Should the weather be cool, the sections should be delayed a little longer.

But I am not keeping to the swarming. In case the bees cluster, or commence to, take the box, which I call a swarming-box, go to the bush or place of clustering, let them gather in a small bunch, then jar the bunch in the open part of the box, and turn the mouth gently downward, holding it close to the bush among the flying bees. Let a few gather on the outside of the box; they will go inside through the holes. Now gently shake the limb where the first gathered and move the box gently away. The humming in the box will attract the bees in the air and all will cluster there. When all is quiet, you can pour or shake them over the frames. Place an empty sack over the bees and jar the remaining bees on the ground, in front of the box. Look for the queen. See that she goes inside, if not already there, and your swarm is hived. There will not be any bees return to the bush if you don't let them cluster too much at first. Any one can make the swarming-box.

J. D. ENAS.

Napa, Cal.

The Veterinarian.

Occasions of Disease in Horses.

Editors Press:—Prevention is better than cure. There is no doubt that a moderate climate is more agreeable to the health of the horse than extremes; at the same time he is better able to stand extraordinary heat than cold. I have noticed in Canada and other cold countries that horses, when attacked with inflammation, in a very short time succumb to its effects. It is very common to hear people say, "Be careful if your horse gets '*heated up;*' let him 'cool off' slowly." They have found out practically that this cooling off means congestion of some internal organ. The surface of the body cools, that is to say, the warmth and blood is thrown inward, and the result frequently is that some organ, generally the lungs, becomes congested and ultimately inflamed. But there is a hint here which may with advantage be mentioned, and that is, do not put on the blankets until the animal has "steamed off," as they say in Canada, otherwise the blanket becomes saturated with the moisture from the body, and this wet covering is by no means comfortable, and is likely to cause the trouble which the owner tries to avoid. Not long since, a very valuable horse was brought to me, suffering from rheumatism, which showed itself first in one forelimb and then in the opposite shoulder. This disease was clearly traced to damp stables and improper care in clothing. Iodide of potassium was administered, moderate exercise ordered and the animal to be placed in warm and dry stables, and the rheumatic parts to be well rubbed morning and night with a stimulating embrocation and warm bandages applied. He got much better and was sent out again to do his ordinary work, but he was for some time liable to attacks when the weather was damp or changeable.

Eye Parasite.

In India, horses are liable to a number of troubles arising from the bites of insects. But there is one ailment, that occurs to my mind, which is interesting to me as a veterinarian, but very annoying to the poor animal. It is due to the parasite which is found actually in the eye; it floats in the watery or aqueous portion of that organ. And the only method of cure, and it is effectual, is to puncture with a very small lancet the front part of the eye—the cornea—and allow the worm-like parasite to flow out of the orifice, with the water or aqueous humor. This liquid is formed again, and the cavity closes up, and the eye assumes its natural appearance.

Shoeing.

Shoeing may not seem to some people a very important matter, but to those who have much to do with horses, it is well known that it is the cause of almost all the lameness that exists. If the shoe does not afford an equal pressure all over the surface of the foot, it is easy to understand that one side or part of the limb must suffer in consequence. Owners of horses, whether merely inclined to look upon this noble animal as a mere "working machine" or on the other hand if they are of the horse, horsey, would do well to pay more personal attention to the shoeing of their animals. If the blacksmith makes the shoe to fit the foot, all is well; but if he, as he frequently does, makes the *foot to fit the shoe*, all is wrong. Corns, splints, spavins, etc., are the inevitable consequences. In my practice, horses are frequently shown to me with their heels extremely contracted, due to allowing the shoe to remain too long without removal, and sometimes also it may be traced to the shoe having been put on and not enough room at the heel left for expansion. In these cases the treatment consists of *removing the cause* and cultivating the growth of the frog. This necessary appendage of the foot, termed the frog, was undoubtedly intended by Nature to prevent concussion and assist expansion. With my own horses, I never allowed the blacksmith to touch the frog, except very gently *with the rasp*, only just sufficient to remove the dead material.

Abuses of Horses.

There are some interesting diseases noticed in those animals employed in coal mines. The eye probably suffers more than any other organ; blindness is often the result. Bruises to the head and other parts of the body, when on the head are termed "poll evil," but the miners try to avoid this as much as possible by applying a leather protection over the front and back of the poll. And now that the subject of preventing diseases in horses is upon my mind, I intend to say a word about something which I may plainly call an abuse and cruelty, and it is used more in California than most other places. I allude to the use of the *curb rein* or *check-rein*, checking up the poor animal's head in the most unnatural and painful manner, and causing diseases of the muscles of the larynx. I suppose I shall offend some by making these remarks, but I am passionately fond of horses and intend to stand up for their rights, at all risks. Any one accustomed to the evidences of pain shown by the horse will very plainly and at once recognize them in the way in which he slowly throws his head from side to side, and the thankful expression of face and the stretching out of the neck and head when the poor animal's head is released from that tying-up method—the check-rein.

After-Effects of Pneumonia.

Allow me here to caution those who are intending purchasers of horses to be very careful not to buy any animal that has had pneumonia, as, if any vital organ has once been inflamed, it is much more liable to again become inflamed with any slight change of the weather. And again, there is frequently some consolidation of the lung substance which interferes with his future usefulness. A friend of mine lately was away from home and bought an animal such as I have described, and having soon afterward driven him an ordinary journey, the horse was again taken with pneumonic symptoms and died.

In conclusion, perhaps I may be allowed to say that one other thing that I frequently notice is that people dose their horses *continually* with medicine. This is actually hurtful; it is time enough to give medicine when they really need it.

Robert J. Dawson,
Veterinary Surgeon.

225 Geary St., S. F.

Sheep and Wool.

The Sheep and Wool of the World.

The recent report of the agricultural bureau, says the Boston *Advertiser*, places the number of sheep in the United States at 44,759,314. This is probably an underestimate, since it does not include the ranch sheep of some of the Territories; but even if the flocks of the United States did not exceed the agricultural department's figures they would still surpass those of most other nations, and would show the great importance of the wool interests of our country. From the latest statistics of sheep husbandry in Australia we find that the aggregate number of sheep in the five provinces of that continent is 62,609,667. More than half of these are in New South Wales.

In New Zealand the number of sheep at last accounts was 14,624,547, and in Tasmania, 1,648,627. In Africa the principal wool-growing colony is the Cape of Good Hope, where there are 11,279,743 sheep, yielding the "Cape wool" which is imported into the United States to some extent. There are also 5,056,301 sheep in the Orange Free State, 535,482 in the Natal colony and 6,056,683 in Algiers. The number of sheep in Algiers is decreasing, the total reported in 1880 having been 6,992,218.

In South America, there are 75,000,000 sheep in the Argentine Republic, 15,921,069 in Uruguay, 3,490,563 in Venezuela and 516,975 in the Falkland islands. Unfortunately, we have not been able to obtain statistics of sheep husbandry in Brazil. Next to Australia the severest competition of American wool-growers comes from Uruguay and the Argentine Republic.

Much wool is brought into the United States from Russia, but it is mostly of a carpet grade and does not compete with our domestic fleeces. The number of sheep in European Russia is about 49,000,000. The number of sheep in Great Britain and Ireland is 28,955,240. Germany has 20,000,000, France 22,616,547 and Austria-Hungary 14,500,000. Spain has 17,000,000 sheep. The number of sheep in all European countries, according to the latest figures obtainable, is 212,332,361. Canada has about 3,000,000 sheep, mostly of the long-combing wool variety.

Statistics of sheep husbandry in Asia are, of course, very imperfect. The number of sheep and goats in India is 14,387,000. The number of sheep reported at last accounts in Caucasia and Transcaucasia, in Asiatic Russia, was 10,000,000.

From such statistics as are obtainable, therefore, we should estimate the total number of sheep in the world as follows:

South America	100,000,000
Australasia, including New Zealand	77,000,000
Europe	212,000,000
Africa	25,000,000
Asia	50,000,000
United States	45,000,000
Canada	3,000,000
All other countries	5,000,000
Total	517,000,000

Many of these animals, however, though designated as sheep, grow hair instead of wool. The fine fleeces of the modern domestic sheep which have taken the place of the hair of the primitive ovine are largely the result of careful breeding and culture. This is a very suggestive fact for economic writers who are inclined to write about wool as though it grew without any care or attention.

The Woolmen's Protest.

The following is the statement sent to the Interstate Commerce Commission, to which allusion was made in the Rural of April 16th:

San Francisco, April 14, 1887.

Hon. T. M. Cooley, Chairman Interstate Commerce Commission, Washington, D. C.: At a special meeting of all parties interested in our wool trade, representing dealers, commission merchants and wool-growers, we were appointed a committee to petition your honorable body to suspend the operation of Section 4 of the interstate commerce law in the transportation of wool by rail from this State to Boston, New York, Philadelphia and other through shipping points. The established rate of 3.70 cents per pound is excessive and prohibits shipments overland. The wool production of this State amounts to 40,000,000 pounds per year, and the difference between the old and new rates of freight involves a loss of over $1,000,000 annually to the grower. Our wools are sold the last at the market.

The higher rates mean no higher prices to the consumer, but lower net results to the grower, because the prices of the Eastern markets are based upon the necessity of sending our wool there whether we pay high or low freight.

We cannot realize an average of more than 20 cents per pound for our wools there. The expenses based upon the present charges for freight, not including local charges, amount to about six cents per pound, leaving less than 14 cents net to the wool-grower. The average yield of wool per sheep is about seven pounds per year. Fourteen cents per pound for the wool gives the grower 98 cents per head annually for the product of his sheep. The expenses of maintaining our flocks amount to about 75 cents per head, and if we add the local charges in handling the wool here there would be nothing left. You can readily see, therefore, that we cannot afford to pay 3.71 cents per pound to market our wool. It is the opinion of your petitioners that if those rates are continued the existence of this industry will be annihilated. The suspension of Section 4 in favor of our wools would be a benefit rather than an injury to this industry in other States. Owing to our mild climate we shear early in the spring, and our wool by rail reaches the East in May and June, when the market is bare of wool, and we dispose of it before other wools are ready for market. But if we are compelled to ship by sail, at the end of four months it would come in competition with the wools from all other portions of the country, and any deficiency in the early market would be supplied by foreign importations, when we ought to be in a position to supply the demand.

The wool interest in this State is a very large and important one, and more particularly affected at present by the operations of the new law than any other branch of business. Our spring clip is now ready for shipment, and it is necessary that we should get it to Eastern markets in advance of Western territory wools, which we cannot do by water transportation. Companies should be allowed to make such competing rates with the water routes as will enable the wool-growers to avail themselves of rapid transportation across the continent without submitting to the ruinous rates as now established, which can only result to the advantage of the transportation companies, and to the injury of the producer without any benefit to the consumer. The railroad rates now charged are more than six times the rates of last year and more than four times the present rates by sail, and nearly double those charged by the Canadian Pacific. The route by Cape Horn, while the charges are reasonable, involves a loss of four months, a large amount of interest on the money invested, and would necessitate an entire change of business relations long established in handling wool between here and Eastern points.

Before the passage of the interstate commerce law, 90 per cent of our wool went overland.

We handled also a large portion of the wool from the adjoining States and Territories which would gladly come here now, but cannot, owing to the excessive railroad freight charged, and if we are compelled to ship via Cape Horn we lose the advantage of the early Eastern market on account of the long voyage, and you virtually help the foreign importer at the expense of the domestic producer. We do not believe that it was the intention of Congress in passing this law to seriously cripple this industry. This is shown by its having enacted from time to time suitable tariff protection, which is now offset by these heavy freight charges which we are called upon to pay under the operation of the Act, and we cannot believe our Government wishes to force the transportation of our wool through foreign countries to secure lower rates of transportation than our roads are allowed to charge, when said roads are ready and willing to give us satisfactory rates if only allowed to do so.

It is clearly to the interest of our people that the labor and capital of our own interest should get the benefit of the money which we would have to pay to foreign corporations for freight and charges which would amount to a very large sum if we are unable to secure competing rates from our own railroads.

Our only relief is the suspension of Section 4 as far as the same applies to wool and pelts, and we earnestly and urgently petition your honorable body for its immediate suspension to enable us to market our wools at once, which are rapidly accumulating.

John H. Wise, Chairman;
J. P. Hulme,
J. E. Shobert,
Eugene Avy,
R. F. Parks.

The Vineyard.

Making Unfermented Wine.

A subscriber to the *Bulletin* appeals to the wine makers of California, as follows:

Gentlemen: Believing that you are not blind to the best interests of your kind, and recognizing the great and growing wine interests in the State, and also the great and growing temperance army, who need some safe, pleasant, unalcobolic drink for the table, and as a healthy beverage, I seek to bring this want and supply together. For this purpose I ask you to put up some unfermented wine—that is, the pure juice of the grape, with no deleterious substance in it. Having all the facilities, you are the proper persons to experiment in this direction. The article sought will be found. Demand and supply always keep company. Suppose you try some of the methods already used by private families, until some better ways are discovered. One of these methods is pasteurizing the juice by heating to 160°, and keeping it there for some time; then filtering or straining it, and again heating to 160° before bottling. It should be put in the bottles hot. To be sure of killing all the germs, the bottles may be washed out with salicylic acid, and the corks to be thoroughly disinfected, may, when closing the bottles, be taken from a hot salicylic solution. No salicylic acid should ever be put in the wine, as its use is opposed to the healthy action of the stomach in the process of digestion.

The reward offered to him who shall discover the best method of preserving unfermented wine is a fortune for himself and an everlasting benefaction of mankind.

The Public Lands.

New Regulations For Land Entries.

The following circular has been issued by the Commissioner:

Department of the Interior,
General Land Office.

Registers and Receivers, United States Land Offices: From and after the 15th day of April, 1887, you will not recognize any attorney or agent for claimants or other parties to any proceedings before you, until he has complied with the following regulations:

1. An attorney-at-law who desires to represent claimants or contestants before your office shall file a certificate, under the seal of a United States, State or Territorial Court for the judicial district in which he resides or the local land office is situated, that he is an attorney in good standing.

2. Any person (not an attorney-at-law) who desires to appear as an agent for claimants or contestants before your office must file a certificate from a Judge of a United States Court, or of a State or Territorial Court, having common-law jurisdiction, except Probate Courts, in the county wherein he resides or local office is situated, duly authenticated under the seal of the court, that such a person is of good moral character and good repute, possessed of the necessary qualifications to enable him to render clients valuable service, and otherwise competent to advise and assist them in the presentations of their claims or contests.

3. The oath of allegiance required by Sec. 3478 of the United States Revised Statutes must also be filed by applicants. In case of a firm, the names of the individuals composing the firm must be given, and a certificate and oath as to each member of the firm will be required.

4. An applicant to practice under the above regulations must address a letter to the register and receiver, inclosing the certificate and oath above required, in which letter his full name and postoffice address must be given. He must state whether or not he has ever been recognized as an attorney or agent before this department, or any bureau thereof, or any of the local land offices, and if so, whether he has ever been suspended or disbarred from practice. He must also state whether he holds any office under the Government of the United States.

After an application to practice has been filed in due form, the register and receiver will recognize the applicant as an attorney or agent, as the case may be, unless they have good reason to believe that the person making the application is unfit to practice before their offices, or unless otherwise instructed by the commissioner or secretary.

Registers and receivers must keep a record of the names and residences of all attorneys and agents recognized as entitled to represent clients in their several offices.

Every attorney must, either at the time of entering his appearance for a claimant or contestant or within 30 days thereafter, file the written authority for such an appearance, signed by said claimant or contestant, and setting forth his or her present residence, occupation and postoffice address. Upon a failure to file such written authority within the time limited, it shall be the duty of the register and receiver to no longer recognize him as attorney in the case.

An attorney, in fact, will be required to file a power of attorney of his principal, duly executed, specifying the power granted, and stating the party's residence, occupation and postoffice address.

When the appearance is for a person other than a claimant or contestant of record, the attorney or agent will be required to state the name of the person for whom he appears, his post-office address, the character and extent of his interest in the matter involved, and when and from what source it was acquired. Authorizations and powers signed or executed in blank will not be recognized.

If an attorney or agent shall knowingly commit any of the following acts, viz.: Represent fictitious or fraudulent entrymen; prosecute collusive contests; speculate in relinquishments of entries; assist in procuring illegal or fraudulent entries or filings; represent himself as the attorney or agent of entrymen when he is only attorney or agent for a transferee or mortgagee; conceal the name or interest of his client; give pernicious advice to parties seeking to obtain title to public lands; attempt to prevent a qualified person from settling upon, entering, or filing for a tract of public land property subject to such entry or filing, or to be otherwise guilty of dishonest or unprofessional conduct; or who, in connection with business pending in local land offices, or in this department, shall knowingly employ as sub-agent, clerk, or correspondent a person who has been guilty of any of these acts, or who has been prohibited from practicing before the register and receiver of this department, it will be sufficient reason for his disbarment from practice; and you are authorized to refuse to further recognize any person, or agent, or attorney who shall be known to you or be proven before you to be guilty of improper and unprofessional conduct as above stated.

An attorney or agent who has been admitted to practice in any particular land district may be enrolled and authorized to practice in any other district upon filing with the register and receiver of such district a certificate of the register or receiver before whom he was admitted to practice that he is an attorney or agent in good standing.

Any unprofessional conduct on the part of an attorney or agent should be reported to the commissioner at once, together with your action in the premises.

Appeals from the action of the register and receiver in refusing to admit to practice or in refusing to further recognize an agent or attorney will lie to the commissioner and secretary, as in other appealable cases. Very respectfully,

Wm. A. J. Sparks, Commissioner.

Approved:
L. Q. C. Lamar, Secretary.

Washington, D. C., March 9, 1887.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Visit to Point of Timber Grange.

EDITORS PRESS:—Left Martinez Friday, April 15th, on the 11:20 train, and arrived at Byron in a little over an hour. Not being expected until evening, there were no greetings, save from an unexpected source—namely, from my last summer's vegetable Chinaman, who seemed not only surprised but pleased to see me. He had emigrated from Martinez to Byron, and in his broken lingo asked, "How do you do?" and kindly inquired after his old patrons. I had almost adopted the theory that all this race—those in California at least—looked alike, but this recognition explodes that notion. I am indebted to our host of the Byron hotel for finding a neighborhood buggy, whose young lady occupant kindly dropped me at the door of Sister Wills. In thus being ahead of time I visited that afternoon with Sister Wills, Brother and Sister Richardson, who are near neighbors.

Saturday forenoon Bro. Richardson took me to Salt Springs, a ride of about four miles. It was a cool, not damp morning; clouds veiled the sun without hiding the beauties of mountain and valley. Crossed the base line, looked in vain for the channel of the much-spoken-of Kellogg creek, which brings its rich grain and fruit-bearing sediment from the foothills, scatters it broadcast, and in the many years that are past has grown its living mark timber line, and yet showing no traces of the usual mad freaks of washing and leaping waters, but has rather formed a ridge or rise of ground.

Leaving the very small village that perpetuates the name of a master-poet, is like unto stepping from gardens of fruitfulness to acres of barrenness. Fine fields of rich green summer-fallow suddenly change into miles of salt and alkali regions Farm-houses are scattered along, with patches of meager growth.

These views, I am happy to say, soon terminated at the now famous Byron Salt Springs of Contra Costa, widely known as a health resort, and boasting of visitors from all parts of the State. Their records attest many wonderful cures. Here are fine buildings and unfinished extensions now in progress, which speaks well for their patronage. Bath-houses in mud, in gas-water, in hot and cold salt water, in white and black sulphur-water all under our eye. Tasting was practiced at each of these wells, the last lip-touch being given "appetizing well." The sequel was made known at Sister Richardson's 11 o'clock dinner, where it was proven that these waters—those last named at least—had not only the desired but the published effect.

After dinner the family carriage made its appearance, and the household, with three prospective Grange boys, started for Brentwood, six miles away, where an open meeting was to be held. Point of Timber Grange has its home where a point of timber many centuries ago strayed from the foothills far down into the valley, but the inroads of civilization and its accompanying woodman's axe have made the name a misnomer, except it be in the memory of the oldest inhabitant.

As everything drifts townward, it has been deemed best to move this Grange home to Brentwood, a village of fine and extensive neighborhood; here it is hoped to centralize, if not a majority, at least a respectable minority of farmers upon the platform of this organization.

Passing through this broad, beautiful valley, with fine, comfortable, well-kept homes, fields of fallow, whose rich green tints verge into those pure soil colors of highly cultivated lands, which are left in mellowing sun and the sport of climate, to store strength and richness to be given next year to the patient waiting farmer in greater percentage for his labor; here and there orchards, vineyards and fields of alfalfa vary the scene, though grain is the rule. To the right spread the San Joaquin and her landings, with "Eden Plain" in close proximity, and to the dwellers therein, no doubt, a more than idyllic reality; to the left the Marsh Grant, whose cozy canyons and fertile valleys lead up to the foothills, nay, even rest lovingly and picturesquely under old Diablo's smile.

From Byron almost to Brentwood we had ridden around sections in wholes, halves and quarters. Upon these were fixed good permanent buildings, but upon the Grant come renters' homes, suggestive ever of nomadic life, and not attractive to the home-seeker or traveler.

At Brentwood we found Bros. Steele, Coulter, Pilkinton, Sherburn, of Danville, Loucks, our District Deputy, and E. B. Smith, of Alhambra, and, only think! we listened to speeches from all that galaxy of Grange lights. If everybody was not converted to Grangeism they surely ought to be. We know good seed, though, was sown, and we hope Point of Timber Grange, in the proposed new home, will thrive and grow in keeping with the people that have cast their home-lines upon these rich plains. We can give them no better wish.

This Marsh Grant was the home place of Dr. Marsh, of pioneer fame. What were his thoughts and predictions as he stood years ago, almost alone amid Mexicans and Indians, and scanned these vast plains, then alive with elk, deer, antelope, wild horses and cattle, all in one happy family, pasturing upon wild oats tall enough to hide them from view? Did he with prophetic eye see this wilderness give way to unparalleled cultivation, and the steam horse of the East brought here with his metallic neighs to draw tons upon tons of the husbandman's gains to the water-front, there to whiten with sails waters that had hardly been furrowed since Sir Francis Drake entered those pacific portals? Did he see in his go-ahead Yankee dreams these same pacific waters open to the commerce of the great world with a Golden Gate?

This Grange stands alone in this end of the county, but we believe that the time is not far distant when neighboring ones must grow and thrive, and we conjure her to hope and persevere, ever mindful of the sympathy of those sister Granges of the county that are little nearer the setting sun.

Contra Costa Granges send greeting to every Grange in the State, bidding them join us in a basket picnic on the 7th day of May at Danville, San Ramon valley. Our picnic of last year was a grand success, despite the fact that one of our hardest spring rains showered her gifts of dampness upon us. Our county is now in her spring glory, and San Ramon opens wide her hospitable doors, and even Monte Diablo will doff his cloud-cap and bid you all welcome!

MARIA B. LANDER.

Martinez, April 24th.

Grange Picnics.

In regard to the barbecue, picnic and ball to come off at Clements, Friday, May 6th, under the auspices of Washington Grange, a correspondent of the Stockton *Independent* says: "The Patrons of Husbandry are noted for their generous hospitality, which is indeed phenomenal, and the fact of their having the celebration in hand is an assurance of its entire success. Excursion trains on the S. J. & S. N. R. R. will connect with all trains on the Southern Pacific. Parties desiring to attend the ball may leave Stockton on the 8:05 o'clock evening train, arriving at Clements at 9 o'clock and return at 6:04, morning of the 7th. Round trip tickets from Lodi to Clements will be 50 cents." W. M., Johnston and W. L., Flint are expected to speak on the occasion. The Grange meets at 9 A. M. Exercises to commence at 10 A. M. A cordial invitation is extended to all who feel inclined to come. Those who do not care to bring their baskets can obtain a barbecue dinner for 25 cents.

As to the Danville picnic, Saturday, May 7th, visitors from Sacramento way are advised to take the early train to Benicia, and cross the ferry to Martinez. Those who come by the Stockton route should take the early morning train. Friends from S. F. would do well to take the cars for Martinez at 3 P. M. Friday, as the morning train does not reach Martinez till 10 A. M, and it is a drive of 17 miles to Danville. Exercises are to commence at 10 o'clock. Bro. Blackwood, of Haywards, will preside, and Bro. Chas. Wood make the speech of welcome. As Dr. Stebbins has to get back to S. F. that same evening, he will deliver his address between 11 and 12 o'clock.

All who mean to attend are requested to notify G. P. Loucks, Pacheco, by postal card, some days in advance, that he may provide the requisite vehicles to meet incoming trains.

Sacramento Grange.

EDITORS PRESS:—The program our last Literary Day was as follows: Remarks by chairman, Wm. Sims; recitation (Kentucky Belle), Frankie Stevens; reading, Alice Greenlaw; essay, Chas. Mack; reading, Hattie Jones; recitation, Katie Aiken; Matron's offering, Ida Flint; song, Lulu Rich; instrumental solo, Frankie Stevens.

Great improvement is noted each Literary Day in all who fill their parts. The essays are full of thought and well delivered; the recitations given with elocutionary power; readings well selected and spoken with gifted tongue; songs and solos rendered well, both in voice and action. Great credit must be given to our young Grangers, and they should be encouraged at every step.

The Grange passed a resolution to initiate every fourth Saturday of the month. In that way more time can be devoted to business and Good of the Order.

A delegation of this Grange went down to Elk Grove at their feast, last Saturday. Seventy-five or more were present. A good time, as usual, was indulged by all.

Grangers' picnic will come off the fifth of May. A lively time is anticipated, as the whole country turns out. P. OF H.

Sacramento, April 25th.

A PART of Bro. Whitehead's missionary-work is the putting forth of various tracts and leaflets, calculated to secure farmers' attention and awaken interest in the Grange, inform them with its spirit, and move them to take part in the organization.

"ARCADIAN DUTIES," in the RURAL of week before last, was one of the best and most original of Grange contributions. Bro. Mackie should write as often as practicable.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

ONE of the great city daily papers tells the world that "The Hon. D. Wyatt Aiken, of S. C., is dead. Five times elected to Congress, he was one of the foremost scientific farmers of his State, and was probably better known as an advanced agriculturist than as a politician." What higher words of praise could be given the man and Patron, who ever placed agriculture *in the front?* From the earliest years of the Grange he was one of its hardest workers and ablest advocates, because it was designed to bring farmers to the front. He, above and beyond all others, did bring agriculture to the front in Congress. Often battling alone, with voice and vote, he was ever advocating the cause of those who had few friends to speak for them. Not in South Carolina alone was he "better known as an advanced agriculturist than as a politician." Not a State in our Union but recognized his advanced position, and hundreds of thousands sincerely mourn his departure. He should have a monument in Washington as the typical "advanced" farmer Congressman.

"GOD buries His workmen, but the work goes on." The work so ably assisted by D. Wyatt Aiken still goes forward. Let a few of his earnest words still continue their mission of good: "Is it presumption to suggest that the world has never seen a better educator than the Grange? It takes care of its own, and makes them better men and better women, and wiser men and wiser women. Thus it will be seen that the Grange is a family where the father's manhood, the mother's devotion, the brother's affection and the sister's love are so cultivated and developed that they reach out beyond the purview of the family circle, and embrace with fraternal kindness every member of the Order, practically obeying the injunction of our Savior when He said, 'The second commandment is like unto it: Thou shalt love thy neighbor as thyself.' This is the fellowship to be found in the Grange, and it is the fellowship of the noblest character. Twenty-nine days in the month social differences, moral convictions or political prejudices may estrange Patrons of Husbandry; but when on the 30th day they meet on a common level in the Grange, all these alienating features are dissipated. Is it any wonder, then, that farmers are attracted to the Order? Nay, verily, the greater wonder is that every farmer in the Union is not an active co-laborer with those of us who are desirous to so impress the advantages of the Grange upon the agricultural minds of the country that it, as an organization, may never be defaced by neglect, injured by prejudice, nor destroyed by ignorance; but may go on prospering and to prosper until it shall merit the fulfillment of its own selected motto, 'Esto Perpetua.'"

THIS people will never submit to being enslaved by a small minority, whose only claim to authority is power obtained by ill-gotten wealth and bribery, but as the laws now are, such is the tendency. A few men wield a power that would put to the blush the potentates of Europe, and unless a change is made anarchy and ruin will be the result, and future generations may view the ruins of this civilization, even as we view the ruins of the mound-builders. This is no time for child's play. If we are worthy of this grand heritage to which we have fallen heirs, we ought to have manliness enough to perpetuate and hand it down unimpaired to our descendants.—*E. A. Giller, Master Illinois State Grange.*

IN this organization of the farmers rest the hopes of all true friends of good government, of republican institutions, of the true philanthropist and the honest American statesman.

A CHICAGO dealer put a quart of water into a gallon of milk, and sold it for five quarts of milk. He was arrested and fined $10. A jeweler alloyed his gold one-half, then sold his goods for pure, and was sent to prison. A half-dozen railroad men issued stock to the amount of double the cost of their roads and equipments, then taxed the public to make the water-milk and the pinchbeck gold, and every one of them was sent to the U. S. Senate.

A DEPUTY in Texas, in his report to the State Grange, says: "I have the honor to report that we have one Grange (Wheatland, No. 70) that has victory perched upon her, and failure under feet. The noble sisters, seeing that the brethren failed to appreciate the honorable cause, took hold of their Grange, elected their officers, and say that the charter shall not be surrendered. May God bless them and our noble Order."

PROGRESS.—*Four more new Granges*—one in Connecticut, two in Pennsylvania and one in Nebraska. North Carolina has reorganized four dormant Granges and several more are in process of reorganization. Wissahickon Grange, Pennsylvania, 22 new members. Lawrence Grange, N. H., 12 new members. North Haven Grange, Conn., now has 100 new members. "Just purchased 40 tons of fertilizer."

HIGHLAND GRANGE, Kansas, one month ago was dormant. Reorganized; 54 new members and other applications. "This Grange renews its allegiance to the National and State organization, with higher conceptions of duty and privileges in this country, and recharters for 99 years or during the necessity of a farmers' organization."

"WE *are* plowing and sowing and reaping all over America's land."

Equality and Rights of Woman.

EDITORS PRESS:—At a regular meeting of Woodbridge Grange, April 19, 1887, the following resolutions were unanimously adopted:

WHEREAS, The position attained by a people in the scale of civilization is indicated by the rights conceded to women; and

Whereas, The elective franchise is wrongfully withheld from the women of our country; and

Whereas, The probate laws of the land are imperfect and unjust; and

Whereas, In the language of our declaration of purposes "we proclaim it among our purposes to inculcate a proper appreciation of the abilities and sphere of woman;"

Resolved, By Woodbridge Grange, No. 84, that woman is mentally the equal of man, and to extend to her every right and privilege of citizenship would tend to promote every material interest of the country.

Resolved, That Woodbridge Grange heartily indorses the sentiment—"taxation without representation is tyranny," and pledges its influence to secure to woman the full privilege of the ballot.

Resolved, That it is the sense of Woodbridge Grange that our Legislature be urged to enact laws legalizing the right of the widow to succeed her husband in their community business, and to be the sole guardian of her children.

MRS. E. J. MCINTOSH, Sec.

SONOMA POMONA GRANGE.—The Santa Rosa *Democrat* reports as most successful the quarterly meeting of the Pomona Grange held in that city on the 20th All the officers were present and W. M., G. N. Whitaker presided. Steps were taken toward perfecting the arrangements for receiving and entertaining the State Grange next October. A committee on literary entertainment and one on general arrangements were appointed and will be ready to report at the next meeting. Between 200 and 300 delegates are expected to be present at the meeting of the State Grange. The committee on Pomona Grange's exhibit at the coming fair will hold a meeting to-day—April 30th. The Harvest Feast, prepared by the ladies of the Grange, was participated in by at least 100 members.

TURLOCK GRANGE will deck the graves of its departed members with flowers, Saturday, May 7th.

The Gridley Fund Picnic.

The weather was all that could be asked, the 23d, for the joint picnic of the Pioneers, Grangers, Grand Army and Woman's Relief Corps at Good Water grove. The ladies had a tent near the pavilion, and at its entrance the original Gridley sack of flour was on exhibition. Members of the Relief Corps took turns in selling miniature sacks of flour as mementoes. Granddaughters of veterans tripped about the grove selling buttonhole bouquets.

At one o'clock, after music by the Sixth Infantry band, Judge Milner called the assembly to order and briefly told the story of Gridley and his famous sack of flour. He then introduced Hon. James A. Louttit, who delivered an eloquent oration. Toward the close he said of Ruel Colt Gridley:

"Although he never wore the blue, his devotion to the country was as deep and as fervent as that of those who marched at the tap of the drum or awoke at the call of the sentry. To-day we do the homage to his name that we have long neglected. His life was an example that we ought to impress upon our children. He left his home, taking what little money he had with him, and traveled from place to place, raising money for the Sanitary Commission, so that the boys in blue might have some of the luxuries of life and some of its comforts in the dark hour of death. It is a shame that the debt we owe him has never been paid; all should assist now in doing what ought to have been done long ago. Gridley needs no monument to perpetuate his memory; brass is not bright enough nor marble white enough to do justice to such a man. By placing a monument over him you do not increase his honor, but you honor yourselves."

Agricultural Districts.

The *Record-Union* gives the following digest:

The Legislature in 1880 made Agricultural Districts of the various counties of the State. Since then subsequent legislation has made so many changes that it is hard to tell what districts some of the counties are in. Merced, the way the matter now stands, is in two districts, and San Diego has been legislated out altogether. The districts as constituted at present are as follows:

1. Alameda, Contra Costa and San Francisco.
2. San Joaquin, Stanislaus, Merced and Tuolumne.
3. Butte, Colusa and Tehama.
4. Sonoma and Marin.
5. Santa Clara and San Mateo.
6. Los Angeles, San Bernardino and Ventura.
7. Monterey and San Benito.
8. El Dorado.
9. Humboldt and Del Norte.
10. Siskiyou, Trinity and Shasta.
11. Plumas, Lassen, Modoc and Sierra.
12. Mendocino and Lake.
13. Sacramento, Yolo, Yuba and Sutter.
14. Santa Cruz.
15. Tulare and Kern.
16. San Luis Obispo.
17. Nevada and Placer.
18. Alpine, Inyo and Mono.
19. Santa Barbara.
21. Merced, Mariposa and Fresno.
25. Solano and Napa.
26. Amador and Calaveras.

AM I TRUE TO MY DUTY AS A CITIZEN?—Referring to the light vote at the late election, and the negligence of thinking people about casting their votes, the *Bee* declares: We begin to believe that the intellectual American voter is an imaginary being. He hies him to the polls by legions when the only question at stake is as to who shall control the offices; and he remains away numerously when great principles are before the people—principles involving much in which he should be judicially, and some in which he certainly is pecuniarily, interested.

Agricultural Notes.

CALIFORNIA.

Alameda.

Osier Willow.—Ezra Whittaker in Livermore *Herald*, April 21: Some two years ago, Prof. J. D. Smith advocated the cultivation of the osier or basket willow in Livermore valley. Whatever reasons he then urged are equally strong now. It is already grown here to some extent—to what extent I am not fully informed; this much I know: There is some grown on the Bernard vineyard. Mr. Wegener has been cultivating it for the last couple of years and I believe has some of the stock for sale. Prof. Smith also grows some in his Pleasanton nursery. Prof. Smith, Dr. Bernard and others advocated the osier as a substitute for twine in tying vines, but this is only one of the many uses to which it can be put.

Butte.

Thriving Fig Trees.—Oroville *Register:* It would not have taken many of the magnificent fig leaves in this locality for the first toilet mentioned in the Bible. We plucked two from a tree in the yard of R. DeLancie yesterday, and they measured 11x14 inches. Two figs that we measured were each six inches in circumference. How is that for a green fig before the 20th of April?

Colusa.

Grain Doing Finely.—*Record-Union:* At Grand island, and vicinity, the growth of grain is reported as wonderfully fine. On the island barley is breast high, headed out nicely, and growing so compactly and evenly that agriculturists view it with great admiration. On Chas. F. Reed's ranch the appearance of the grain is equally good, and there will be an immense yield unless something unforeseen occurs.

The First Artesian Well.—Colusa *Sun*, April 23: Water has been struck on N. D. Rideout's farm, near Norman, at a depth of over 1000 feet, that flows about one foot above the ground. Mr. Rideout is going down further, with a hope of striking a stronger stream.

The Glenn Ranch.—Marysville *Appeal:* The Glenn ranch comprises 52,000 acres, of which 23,000 are in grain this season. Of the 23,000 acres, 14,000 were summer-fallowed and 9000 winter-sown. F. C. Lusk, who has charge, is confident that the product this year will be 25 bushels to the acre. There are at present engaged in summer-fallowing 10,000 acres, 80 8-mule teams, making 640 head of mules at work. This is but little more than one-half of the work animals on the ranch. In 1880 the Glenn ranch produced 1,235,000 bushels of grain, of which 100,000 sacks were barley and the remainder wheat. During the harvest season of that year Glenn is reported to have said to his men: "Boys, I want you to hurry all you can. I am paying $20 an hour for interest." It is probable that the ranch will be kept intact for years to come. The heirs of the estate are said to be disposed to hold it undivided.

Irrigation Matters.—Maxwell *Argus*, April 21: The irrigation meeting last Saturday was better attended than before, and greater interest was manifested. It resulted in definite action, a committee of five being appointed to supervise all preliminary arrangements, including the circulation of petitions, procuring of bonds, and securing the services of an engineer to make the boundaries, give an estimate of the cost of construction, repairs, etc. The committee appointed by Chairman Sutton were Henry Eakle, P. R. Garnett, G. F. Packer, G. B. Harden and W. P. Harrington. It is a good, well-selected working committee.

Contra Costa.

Wheat that is Wheat.—The Antioch *Ledger* office has on exhibition a fair average sample of 180 acres of summer-fallow on Jake Bonslett's place on Los Medanos. It is 4½ feet in hight, strong in growth, dark green in color, and has heads from three to four inches in length. A portion of the wheat in the fields is a foot higher. Three years ago, when the crop was short and while many of his compatriots looked as if they were under contract as undertaker's apprentices, Mr. Bonslett's demeanor was unchanged. His farming had been conducted on business principles and resulted in giving him a return of 3000 sacks of superior wheat. Summer-fallow will do it every time.

Lake.

Vexed by "Varmints."—*Avalanche*, April 21: Wm. Storms, who lives up in the Rincon valley on Kelsey creek, reports that his crop looks well, but says he is much troubled with coyotes, panthers and wildcats, which are entirely too fond of mutton for his interest.

Los Angeles.

Honey Outlook.—Orange *Tribune*, April 23: N. D. Harwood was down from the canyon this week. He says the prospects are better for the bee-men this season than they have been for years. The honey crop will be large, and young bees are plenty. The late rains have been of vast service to honey-producers, and this summer will be a grand one for bee-feed. The Santiago canyon country furnishes some magnificent honey, and the foothills all along the San Diego are not much behind.

Pecans that Bear.—J. W. Potts in Los Angeles *Express:* There is a pecan tree 2½ miles from your office that I planted seven years ago, when it was about an inch in diameter, that is now, by actual measurement, 18 inches in circumference and more than 20 feet high. There are also older trees that I planted the nuts for about 15 years ago, that are bearing nuts and have been for five years. The trees can be seen in El Monte at Mr. Gibson's place, at J. B. Rearles' in Los Nietos, at Captain C. E. Thom's and many other places. The pecan is a thrifty grower and bears at ten years from the seed. So does the old States black walnut. Both of these old forest trees are thrifty growers here and bear nuts at the same age as the English walnut.

Modoc.

Galloway and Cleveland Bay.—*Sagebrush Stockman*, April 20: A. J. Jackson, of Reynolds & Jackson, stockmen of Modoc county, Cal., arrived at Reno Monday, on his way East, and will visit Denver, Kansas City and other points, in search of thoroughbred cattle with which to improve his stock. The Galloways having made quite a record for themselves in Modoc county the past winter, his preference inclines that way, and the probabilities are that he will invest quite heavily in that breed. Reynolds & Jackson are also engaged in raising horses, and a Cleveland Bay stallion, "the coming horse of the West," will also be secured.

Napa.

Cut-Worms.—Howell Mountain Cor. St. Helena *Star:* Vineyard work is well advanced, but many vineyards are being seriously damaged by cut-worms, which are more numerous than heretofore. They secrete themselves during the day and come out at night, cutting out the young buds, and, in some cases, killing the vine. If not hunted and killed, they will seriously shorten the crop. We hear of one vineyard, on the northern slope of the mountain, entirely ruined for this season by this persistent worm.

Nevada.

Irrigation Enterprise.—Grass Valley *Union*, April 21: John Hastings, who contracted for a portion of the ditch belonging to the Excelsior Co., from Newtown toward Pleasant Valley, has about completed the work. There is yet a section to be put under contract before the entire line, which will be 16½ miles, is covered. By means of this ditch irrigation facilities will be given to a considerable area of territory north of Deer creek along the divide between that stream and the slope of the Yuba, which will enable farmers to cultivate alfalfa fields, orchards and vineyards. The ditch will carry 400 inches of water.

Placer.

Marauder Captured.—Cor. *Record-Union*, April 23: One day last week C. F. Withrow, living at Cape Horn, near Colfax, saw a large eagle fly down into a ravine, where he had noticed a flock of goats contentedly feeding. Presently a sharp bleat from a kid was heard, and the flock of goats came running from the place badly frightened. Taking his gun and going to the top of the ridge overlooking the ravine, Mr. W. saw the eagle perched on the dead kid and proceeding to take a meal. Before he could fly he received a load of No. 5 shot, which set him to turning somersaults. He was now an easy prey, and by use of a club was soon dispatched. The bird measured six feet seven inches from tip to tip of wings, and two feet nine inches from tip of beak to tip of tail. There is another in the neighborhood.

Plumas.

Editors Press:—The storm king seemed to exhaust his resources with us in the month of February. The severe storm of wind and snow on the 24th of that month was followed by some unusually cold weather. But the days soon became pleasant, and the four feet of snow sank rapidly into the ground, going off in the best possible way. The roads, which were for a time impassable, soon became good. Every one is very busy, and seeding is going on rapidly. The ground is becoming unusually dry for this time of year. There was plenty of hay in the valley, so the stock have come through the winter nicely, and dairying will be carried on as usual, with the hope that the passage of the oleomargarine bill will give us a better price for our butter. The price of beef has risen from 5½ cents in March to 9½ at present, the reason given being the failure of drovers to make the contemplated supplies. The work on the Sierra Valley & Mohawk R. R. was pushed rapidly forward until the storm of February 3d suspended operations, which it is supposed will soon be resumed. There is nearly 30 miles of the road-bed built, and some 10 miles of track laid.—M. P. A., *Beckwith*.

Sacramento.

Sales of Nursery Stock.—*Record-Union:* Nurserymen who have been maintaining yards in this city for the sale of young trees and bushes for several months past, have closed out for the season. The sale of all kinds of trees has been very large, and the number of orange trees disposed of indicates that a great many people are determined to test the capabilities of the "citrus belt."

San Bernardino.

Citrus Shipments.—*Valley Echo:* The total shipments of oranges and lemons from Riverside station for the season of 1886–7 to April 21st amount to 57,190 boxes; from Arlington, 12,000 boxes; total, 69,190 boxes—equal to 233 carloads.

San Benito.

Cleveland Bays.—Hollister *Advance*, April 22: A parade of Cleveland Bay colts took place in town on Saturday afternoon, led by Colwell's fine stallion Rainbow. Among the family were a pair of colts belonging to Harve Moore, two of Henry Kent's, two of Horace Gould's, one of T. B. Hubbard's, and one of Thos. Johnson's. All the youthful specimens of horseflesh held their heads proudly erect, and presented a good view of bone and muscle.

San Diego.

Hay Prospects.—National City *Record*, April 21: Early sown grain in this vicinity is heading short—only a fair crop of hay, at most, can be expected; hence we predict that hay will bring a remunerative price for a year to come, especially as an amount of work is in progress throughout the country which requires horses in great numbers to accomplish.

San Joaquin.

A Huge Oak Log.—Stockton *Independent*, April 24: A mammoth oak tree, on the ranch of W. G. Phelps, about two miles south of the racetrack, was an old landmark, familiar to the residents of this section since 1853. Although the trunk has been stripped of its bark and lying on the ground for a number of years, it is still solid and sound. This specimen of San Joaquin county oak trees was secured by John Gambetta, who had it hauled into town at great expense and trouble, by a team of 20 mules and half a dozen mule-drivers. The log, measuring 20 feet in length and 10 feet in diameter, and weighing 37 tons, was placed on the wheels and bed of a house-moving apparatus, and after a hard pull and a strong pull, was finally landed on Hunter-street Square yesterday afternoon. Hundreds of people visited the square during the day and evening and paid their respects to the old oak log. Mr. Gambetta had the curiosity brought into town and placed on exhibition as an advertisement of the timber resources of the county.

Santa Clara.

Silkworms.—San Jose *Mercury:* At the Home Agency of the Board of Trade has been placed a new display which is proving quite attractive. It consists of a large number of young silkworms, on mulberry leaves spread on a table in the rear office. The insects are growing rapidly and quite active. The exhibit is made by the Pacific Silk Factory.

Shasta.

Home-Makers in Earnest.—Cottonwood *Index*, April 21: One year ago this month Mat Ringle and family arrived in Cottonwood from Michigan. They at once secured 160 acres of unimproved brush land in the foothills about 15 miles west of here and in the "thermal belt." Mr. Ringle now has 40 acres fenced in with a strong stock-proof fence; 25 acres cleared, 6 acres in oats and 14 acres in wheat, all of which has a good healthy look and will make a good crop. He also has two acres fenced with pickets for garden, and everything imaginable planted and growing there. He has 800 grape-cuttings, which are growing nicely and will be well rooted for next season. He has a good, comfortable house and barn. Mr. Ringle has accomplished more in the last 12 months than many others have in 12 years. It is easy to see why some people get ahead while others cry hard times and "damn the country with faint praise."

Solano.

Editors Press:—The weather for a few days has been very warm, with north wind. Mr. Bassford shipped some cherries yesterday. The cherry crop will not be heavy; while trees of some varieties are full, others have none. Black Tartarians are very scarce. Apricot trees are generally full, though some that were full last season have but few this year. Many are thinning now. Fruit should be thinned about the time the pit is formed. The last rains wet the ground so that all have been able to get their orchards and vineyards in the finest order. There is promise of the largest crop of peaches we have ever had. Many trees will need from one-third to one-half of the fruit thinned off. Several new driers are being put up around here, and others are talked of. May-day picnics will be plenty, both on Saturday and Monday.—G., *Vacaville, April 25th.*

Sonoma.

Olives Bearing Early.—*Democrat*, April 23: It is often stated that the olive tree will not bear until in its seventh or eighth year. Captain Guy E. Grosse thinks that on his mountain ranch may be found proof satisfactory that such is not the case. Out of his 500 olive trees, planted four years ago, 461 are in full bloom and promise a good yield. Further and successful refutation of the statement concerning the maturing age of the olive may be found in this city. On A. B. Ware's premises is an olive tree four and one-half years old, which bore a good crop last year.

The Butter Crop.—Editors Press: The output for butter will not be as large as last season. Short feed through the winter and an unusual amount of cold winds kept the grass back until late. The last rain followed by warm weather has done some good and will keep the grass longer.—E. H. Cheney, *Bodega*.

Tehama.

Poland China.—Red Bluff *Sentinel*, April 23: Last Wednesday B. A. Bell received per Wells, Fargo & Co. a fine thoroughbred Poland China pig from Park H. Hammond, Oneida, Knox county, Ill., one of the popular raisers of pure blood hogs in the United States. "Markham," the stock-book name of the pig, will not be a year old until the 18th inst., and he weighs nearly 400 pounds. He has taken two medals, one at the Illinois State Fair and one at the Rockford County Fair. "Markham" is a handsome animal, if it is possible for a pig to be handsome. Mr. Bell took him out to the Gallatin ranch.

Tulare.

Hare-Hunting Extraordinary.—Tulare *Register*, April 22: They had a big rabbit hunt out at E. W. Kay's the first of the week. A quarter section of land was surrounded by the hunters, and the result of the round-up was the slaughter of 590 jacks. A header-bed, loaded with 250 of the deceased depredators, arrived in Tulare, Monday.

Yolo.

Floral "Cold Storage."—Woodland *Democrat:* A novelty in the shape of a bouquet of flowers frozen in a solid chunk of ice is displayed in front of the market of A. Mossmayer. The bouquet was hung by a string in one of the boxes for making ice at Harnish's factory, and when the water froze the bouquet was in the middle, looking as natural as life. It attracts much attention.

Yuba.

A Solid Calf.—Marysville *Appeal:* O. H. Sawtelle has a pet in the shape of a part Holstein calf, which he has taken great pleasure in showing to visitors. Before sending the animal out in the country to pasture, it was weighed and tipped the beam at 274 lbs., much to the surprise of those who saw it.

Holding up Hopvines.—Wheatland *Graphic:* Heretofore growers have used small willow and cottonwood trees for the purpose of training their hopvines. These poles had to be replaced so often that they were the cause of considerable expense. The gentlemen interested in hop-growing have replaced these poles with pine timber, set about 100 feet apart and connected with strong wire, from which strings are dropped to the ground. Dr. Durst has set out nearly 100 acres of these timber poles. Before the poles are placed they are boiled in tar to the depth of four feet to protect them from decay. The first cost of these is, of course, much greater than that of the old kind, but they will last so much longer that there will be a considerable saving in the end. The old hop poles last only three seasons at the most.

NEVADA.

Feed and Stock.—*Stockman*, April 20: F. C. Dickinson, of Manning & Dickinson, came in from Pyramid, Saturday, and reports everything favorable in his section, provided rain falls the present month. Already grass is springing up all over the country, but copious showers are needed to insure a good supply. Unless it does rain, stock will fare badly this summer, as they are spring-poor—the past winter having proved quite severe, although stock came through in much better condition than could have been expected.

The Late William Ashburner.

Prof. Wm. Ashburner, a well-known man on this coast, died at his residence in this city on Tuesday. He was formerly on the State Geological Survey, with Prof. Whitney, and has long been identified with mining interests. He was a mining engineer by profession, though of late years he has done little in this direction. He was Honorary Professor of Mining at the State University, and one of the Regents of the institution. Prof. Ashburner was also a trustee of the Leland Stanford Jr. University. For several years he was president of the Board of Trustees of the California Academy of Sciences, and has served one or two terms as president of the San Francisco Microscopical Society. He was also a member of the Historical Society, the Technical Society of the Pacific Coast and the Geographical Society.

Prof. Ashburner took a very active interest in the affairs of the State University, and will be greatly missed in the Board of Regents. He was a man held in high esteem for his talents and his social qualities. He was quite active in all of the societies with which he became associated. Of a genial disposition, he made friends in all directions, and his loss is deeply regretted by a large circle.

The Late Dr. Kellogg.

At the last meeting of the Academy o Sciences, Dr. Behr read a brief memorial of the late Dr. Albert Kellogg, and on motion the following preamble and resolutions were read and adopted:

Wherras, Our co-worker in the field of science, Dr. Albert Kellogg, whose amiable qualities of head and heart won the friendship of all who knew him, has, by that divine and inscrutable Providence which governs all things, been removed from his late sphere of action and consigned to his last resting-place of mortal man; be it

Resolved, That it is with sincere regret that the officers and members of this Academy of Sciences have received the announcement of his death, and we do hereby desire to express our sympathy with the relatives and friends of the deceased.

Resolved, That this memorial paper and these resolutions of condolence and respect be spread in full upon the minutes of the Academy.

Finding on our desk the card of B. M. Lelong, Secretary State Board of Horticulture, leads us to infer that he has taken charge of his office and may now be found, ready for business, at No. 40 California street, San Francisco.

Some of the persons who bought land at auction at Templeton, last week, have taken their families there and are plowing for late crops.



The Stars.

[Written for the RURAL PRESS by F. H. A.]

"The stars are the apexes of what wonderful triangles."—THOREAU.

I well remember when I thought
  The stars were brilliant points of light
That the Almighty had but wrought
  To brighten up the gloom of night.

And often, in my childhood's days,
  I stood and watched, with earnest eyes,
Their silvery, scintillating rays,
  With much of curious surmise.

How high they are—how bright—how far!
  And oh, I mused, how great their number!
As they peeped out, star after star,
  They seemed like night-flowers waked from slumber.

Now when I contemplate those spheres,
  My early wonder's not outgrown;
It has increased with added years,
  And has a deeper, graver tone.

But oft a sp'rit of unrest
  Steals o'er my being when I view
Those hosts, which science does invest
  With charms my childhood never knew.

O Richter! when thou didst essay
  To paint a mortal's stellar flight,
How nobly did thy pen portray
  His feelings, and depict his plight!

Before the splendors, vast and grand,
  That ever rose, still more and more,
He prostrate fell, faint and unmanned;
  He could but tremble and adore

The Power that made the worlds of light—
  The Power that gave him sight and thought
To see and apprehend aright
  The works with which creation's fraught.

Man longs to explore the sparkling stars
  That sweep through space with splendid roll;
Their heavenly hight his quiet mars—
  Their mystery agitates his soul.

No other wish has deeper hold
  Upon his seeking mind than this:
That *some time* he will see unrolled
  The scroll of God's great Universe.

San Francisco.

The Way His Mother Did.

I cured my Jeremiah of thinking that he could cook jest as his mother did easy enough. Says I, at the breakfast-table one morning:

"Jeremiah," says I, "I biled my meat yesterday, and if you'll bring in that jug of cider-molasses that you put into the ice-house to keep cool through the summer, I'll make up my mincepies to-day."

A simple remark enough, and innocent, but who can tell what a word may bring forth?

"I wish," says the pardner of my joys, and (when he can't dodge them) of my sorrows, "I wish I could taste some of my mother's pies again. Them was pies as *was* pies."

Now, I know that if Philura Jane Jones can do one thing better than another, it is to make a mincepie, but I kep' calm outwardly.

"How was they made?" says I; "what was the ingregiences?"

"Wal," says he, "I used to watch her, an' if you'd hear to me, I believe I could tell you jest how. Hi! wasn't they good, though? I vum, I believe I could make 'em myself."

"Perhaps you'd better," says I coolly.

"I *can*," says he, "an' I declare for all tryin' to boss a woman round—I *will*."

I couldn't help but laugh to see him go to work. I got him my big check-apron and tied it on. I brought out the flour, and the lard, and the saleratus, and the salt, and the spice-drawer, and the sugar-box. Jeremiah he went out and got the cider-molasses. The meat and apples was already on the table.

"There!" says Jeremiah. "Now I'll show you something about pies."

I said nothing, but went to washing up the breakfast dishes and sweeping up.

"I don't get to baking so early as this, generally," says I. "You've got a good start."

"Oh, yes," he answered in his gayest tone, "'twon't be no time afore I have them pies all settin' in a row on the buttery shelf. Hain't you got no sour milk?"

"Why, yes," says I, "but you don't want it for mincepies!"

"Who's makin' these pies?" says he. "My mother always used to make sour-milk piecrust, and I believe it would taste good once more."

So I brought the sour milk. He dipped out about two quarts of it in my big yellow mixing dish.

"Where's the short'nin'?" says he.

"There's the lard and there's the butter here if you'd rather have it."

"My mother used lard," says he. "Where's a dish to melt it in?"

I got him a dish.

"Most folks rub their shortening into the flour," says I.

"My mother didn't," says he. "As I said before, who's makin' these pies? If you are, I'll go out and mend the fence. If *I* am—"

"I won't say another word," says I. I've had some experience in managing an opinionated pardner before.

He stirred his melted lard into his sour milk, and it rose to the top in little lumps. Then he began to stir in flour. I see he hadn't put in any saleratus, but knew him too well to venture to say so. Jeremiah Jones sometimes needs to attend the school kept by experience.

He stirred and stirred and stirred. When he finally got it thick enough, there was batter enough, such as it was, to make several dozen pies.

"These pies are goin' to be so good," says he, "we'll make up a lot of 'em. Where's the pie plates?"

I brought them to him all buttered, and he began to roll out his crust. By this time it was so thick that it could scarcely be induced to roll out at all, but he worked nobly. When he got his first piece rolled down to about an inch in thickness, he stopped and looked at it.

"I like a good thick crust, myself," says he. "An inch thick ain't too much for a real juicy inside."

"No," I answered, comforting myself with the thought that his crust wouldn't rise up to call him blessed, the way most sour-milk crusts do. By the time he had rolled out four under-crusts, and used perhaps one-eighth of his batter, he laid down his rolling-pin.

"Shan't I chop your meat for you?" says I.

"No, sir-e-e!" says he. "Who's makin' these pies? I wish't you hadn't chopped the apple. I've got an oven-full rolled out, and now I'll make the inside. Where's the choppin'-tray?"

"Did your mother have somebody to hand things, or did she get them herself?" says I good-naturedly, handing him the tray and the choppin'-knife.

He put all his meat, some four or five pounds, into the tray at once, and began to chop. He chopped, and he chopped, and he chopped, and still great masses of whole meat kept coming to the surface. After three-quarters of an hour of hard work he got it so there wasn't any pieces more than one and a half inches square and two inches thick, though there was plenty that big. Then he went for the molasses jug.

"You ain't going to call that fine enough for the meat?" says I.

"Course it's fine enough," said he. "Takes the life all out of mincemeat or hash or anything, to chop it too fine."

"But, Jeremiah," says I, loth to see so much good meat wasted, "that won't be fit to eat. Let me take it. I'd rather chop than see the pies spoiled."

"Sp'iled!" he cried. "Who's makin' these pies, Philura?"

"I wouldn't want to swear that anybody was," says I.

"You always make your pies too sweet," he went on, measuring out sugar by the teaspoonful. "My mother never used much sugar."

Then he poured in two teacupfuls of cider-molasses and a teacupful of vinegar. He liked them real tart, he said.

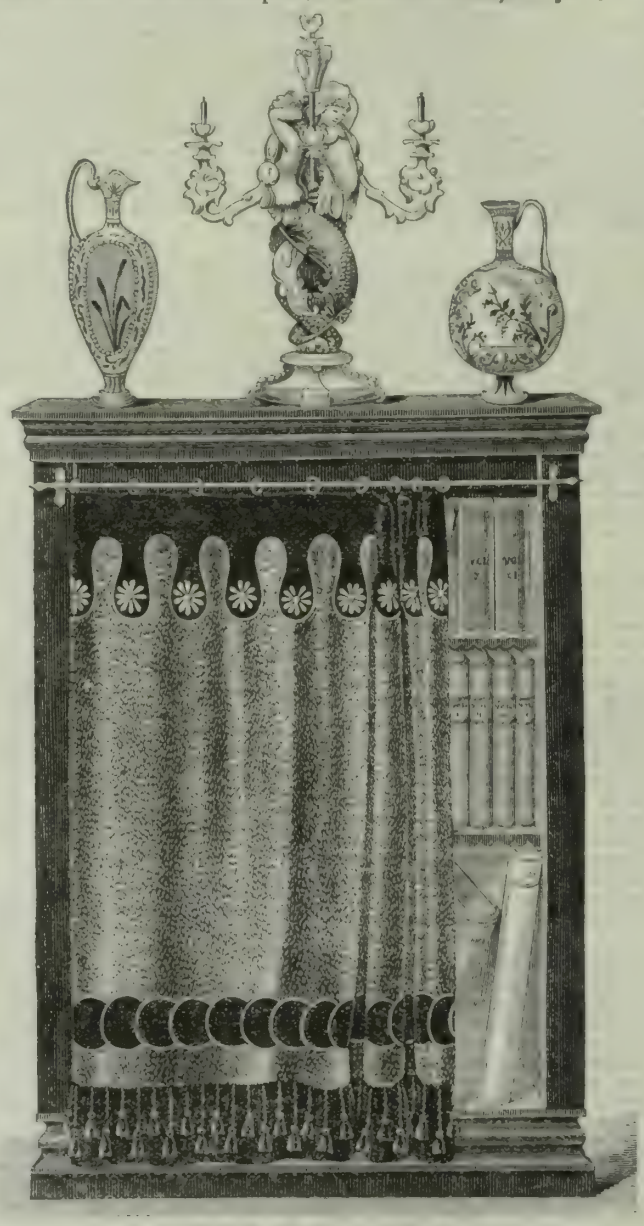
"Now for spices," says he. "Lemme see. She used to put in a lot of ginger, I remember." And thereupon the whole two-ounce package was emptied into the pan. "And cinnamon—ain't we got any cinnamon stick?"

"No," says I; "you say you don't like it."

"It's best for pies, I guess, but this will do;" whereupon the package of cinnamon followed the ginger. "Cloves, oh, yes! Where's the mortar 'n' pestle?" And he ground up a quarter of a pound of cloves and stirred them in. "Now, that's all but the raisins. Oh, no, there's the apple." And he shoved in the chopped apple. "Oh, yes, bread! My mother used to chop up bread and put in."

"That was when she was short of apples," I remarked.

"Who's runnin' these pies?" he repeated. "Git me some bread, will ye?".



PORTIERE FOR BOOKCASE.

I brought the bread, and he pounded some up and stirred it in.

"Now I guess it's ready," and he began to ladle it into his under-crusts.

"Ain't you going to taste of it and see whether it is right?" says I. "Your mother used to."

"That's so," says he, "and so did I, and wa'n't it good?"

He smacked his lips and tasted, but I noticed he didn't smack 'em a second time.

"You ought to set it on the fire and cook it all together," I couldn't help saying. "Why, what's the matter, Jeremiah?"

The tears was chasing each other down his hollow cheeks, and for a minute I was real scairt.

"There seems to be a leetle too much ginger," he said, blowin' his nose, "but I'll fix 'em."

Then he went to work puttin' in more stuff. A cup more of cider-molasses and a cup more of vinegar, considerable pepper, but no salt, two pounds of raisins, whole, and the contents of a bottle of paregoric, I see him put in. Then he went to the settin'-room closet and brought the bottle of brandy I keep for sickness and put about half of that into the mixture he was concocting. I looked horrified, indeed, for I *never* use it in cooking.

"Doctors say mincepies ought always to hev brandy in 'em to keep 'em from hurtin' folks," says he; "I don't begruch a leetle brandy in such good pies as these."

Then he stirred up the whole mess. My land! There was great chunks of meat and great long strings of it. And such a looking pan of mincemeat I never see!

But I said nothing as he went on and filled his pies, and proceeded to cover 'em. The crust had got so hard and stiff he could scarcely roll it out, but he finally got it down not much thicker than the under-crust. Without cutting any airholes he covered the pie, tucking in the edge where it came over, and pulling it out where it came short. Then his pies went into the oven.

He insisted on building up an awful fire, and in a few minutes the juice of his pies (his meat was floating around in an abundance of molasses and vinegar) came running out on the floor. Jeremiah bounded to the oven-door. He didn't look near so chipper as when he first began the pies.

"I wish, Philura," says he, "you'd jest see here a minute. That crust don't act well."

I should say not! The inside had riz up and was runnin' over all around, while a thick, leathery-looking substance rose up in the middle of it, burnt pretty near black.

"Who's runnin' these pies, Jeremiah?" says I. "You didn't stick your two crusts together."

"Wal, why didn't you tell me not to begin with them?" he yelled; "not twit me with it now."

But I went back to the settin'-room where I was sweeping, and left him to rastle with the pies alone.

But after awhile I looked out. I never see a more dejected-looking picture, or a more depressed man. His apron had got twisted to one side and was all covered with flour. Great dabs of flour was on both sides of his face and his whiskers was jest dredged. The tears he had shed had made water-courses through the dirt and flour, and his expression, O my! words fail me. He was jest taking a pie out of the oven and settin' it on the table. He put the pan of mincemeat in a chair to make room for the next pie, and then he took that out, the liquid from it dripping all over him and the kitchen floor. And if it wasn't a queer-looking pie! The crust had crawled up in a roundish heap in the middle, and the inside was roaming about everywhere, as if seeking somebody to devour it. My pardner stood still (leaving the oven-door open) and gazed at them. Then he backed back in a sorrowful kind of way, and set right square down in his pan of mincemeat. He had had it on the stove, and it was b'iling hot, and he yelled according, jumping an' tearing around the room like mad. I rushed out with some dry pants and helped him on with 'em. The first thing he did afterward was to take them two pies and march into the shed. Here he deposited 'em in the swill-barrel. Next he went in and took the two out of the oven and carried them to the same appropriate grave.

"Now," says he, recklessly, "you may finish the pies, Philura, and I'll mend the fence."

"Who's making these pies, Jeremiah?" I couldn't help saying.

"Throw that in my face, will ye?" he muttered, in very subdued accents, as he went out and got his axe.

But I never grudged them poor pies, for I never heard any more about the way his mother used to do things.—*Helen M. Winslow.*

Design for Portiere.

Many of our readers, no doubt, like to employ their spare moments in making various articles for home adornment, and in so doing they successfully invade the spheres of the carpenter, the cabinet-maker, the upholsterer, etc. Many times a really handsome article of furniture can be made of odd materials or of material purchased at little cost. Our engraving shows how a very neat bookcase can be made with a few hours at the bench, supplemented by the flying of the needle. Perhaps the design may be of use to some of our readers either as a model or as suggestive of other designs.

THE GENTLE MAN.—But the true gentleman nowhere shows his superiority to other men more strikingly than his behavior to those who have given him cause for offense. There is solid truth in the quaint old Scotch proverb, "It's aye gude to be ceevil, as the auld wife said when she beckit to the deevil." In society, to treat with marked coldness those whom we do not like is disrespectful to all present. Bishop Pearce reminds us, though the observation is not original with him, that "in Christ's parable of the marriage feast, though the fact was plain respecting him who had not on a wedding garment, yet the king addressed him with the mild appellation of friend, in the sense of one to whom good-will and civility were due; and that Abraham called the rich man even when in the place of torment by the name of son."—*Prof. Carey.*

"OLD CLOTHES" or "Hard Times" parties have been quite popular of late in some portions of the State. All who attend are expected to wear their seediest and most antiquated garments; but any one known to have borrowed the raiment of a tramp for the occasion would be promptly ruled out.

THE Washington *Critic* says: Now that strawberries have appeared in the markets, the monument is not the highest thing in town.

My Lady's Cheeks.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

My lady-love has charming cheeks,
And like two jealous sisters,
When one I kiss, the other seeks
The tropics' warm registers.
Then when I change from left to right,
I take the same condemning;
The left one warms for sentence quite
Severe as that of hanging.

The Blessedness of Rural Life.

EDITORS PRESS:—The rains came so opportunely that Nature could not but respond to the baptism. Tuolumne county is in its gayest dress. This Sunday morning flowers deck field, valley and hill. Cereals, fruits and every variety of crops will be abundant. When it is not raining, the sky is overcast, so that the moisture is retained and growth continues.

How thankful man should be for plenty and peace! As a nation we are at peace; as individuals, few possess the gem, morally, financially, or spiritually. Ailments afflict the human family from violations of the laws of health. Premature death or living misery is the consequence. The husbandman has it in his power to attain peace and plenty, health and happiness, far above those who trade, gamble, and deal in or use man's worst enemy, alcohol.

Peace is written all over a well-appointed Granger's domain. The substantial dwelling; the barns and all home conveniences; the live-stock cared for or roaming amid the clover; the chickens proud and crowing; the youngsters going to and returning from school; the kindly greeting from well-fed Rover; the matron, "fair and forty," smiling upon a scene which angels delight to gaze upon; the Granger himself in his road cart, overseeing his large and valuable possessions, so that nothing goes to waste, nor man, baby nor beast suffer unnecessarily.

Almost anywhere in our Golden State you will find such homes, enriched by domestic love and genuine peace and contentment. Perhaps many of these well-to-do Grangers do not appreciate their enviable condition. They read of sudden fortunes made by mercantile adventure and speculation. But they know not the many wrecks which occur in speculative life, or they would humbly thank God for their independent and honorable calling.

A producer of bread is engaged in the highest and most sacred occupation man may follow. What would the world be without the Granger, with all his modern appliances for producing cheap food? Other men may speculate and grow rich, but it is upon the productions of others and not by their own labor. The orange groves, dotting our fair Eden, have been nursed into life and usefulness by patient industry and faith in well-directed effort. Our cities are not established by money-changers, but by brain and muscle, energy and grit.

We never pass by a well-appointed rural home without appreciating all the belongings internally, as well as the outward appearances—a happy family, a warm welcome to friends, a good word and substantial encouragement to the poor and needy; in fact, a miniature heaven where the mother-angel presides, supported by the strong arm and loyal heart of the president, controller, banker and treasurer all combined in one, ably assisted by his better-half. There are exceptions to this rule, but it is soon manifest in outward decay and wreck and in mortgages beyond the power of redemption. But my space is more than occupied with these reflections, many of them too true.

JOHN TAYLOR.

Mount Pleasant, April 17, 1887.

Problems—Not Algebraic.

A NEGRO MINSTREL COMPANY adds one new jest to its repertoire every 300 years. How long will it take this company to get an entirely new repertoire?

THE average age of a jest when it is finally shelved is 9500 years. How soon may we expect to see the last of the mother-in-law pleasantry? of allusions to the exorbitant charges of the plumber?

A. SPENDS 20 minutes in trying to condense a 16-word telegraphic message into 10 words in order to save 12 cents. He finally succeeds. During the 20 minutes thus occupied he might have made $3 at his business. State his profits by the operation.

MRS. B.'S new dress cost $129.50. Mr. B.'s salary is $80 per month. State the probable actual cost of Mr. B.'s noonday luncheon for the next six weeks.

FOR preparing a prescription, the principal ingredient of which is aqua pura, and which costs him four cents, my druggist charges me 55 cents. What would he charge if the drugs were worth 9 cents? 11 cents? 80 cents? $4.50?

THE average clergyman earns $750 per annum; the average faro-sharp clears $8500 per year. How much is it worth to be virtuous nowadays?

DURING a period of three years I expend $211 for lottery tickets. I finally draw a prize of $75. To celebrate the event I give a little champagne supper costing $60. State my profits by the transactions detailed.—*Tid-Bits.*

YOUNG FOLKS' COLUMN.

The Little Window-Washer.

[Written for the RURAL PRESS by I. H.]

It was a cold, blustering afternoon in the month of March. The wind came whistling round the corner and fairly twisted off the shawl of a girl who stood there, looking up and down the street, as if uncertain where to go or what to do. She held in her hand a small basket, carefully covered with a cloth, but as she made a snatch at the flying shawl it fell from her grasp, and out on the sidewalk rolled the entire contents—papers of pins and needles, spools of thread and cards of buttons; a poor little supply, and all of an inferior quality. With an exclamation of distress, she stooped to gather them up, wiped off any specks of dust, and replaced them in her basket. As she rose and looked around once more, a party of schoolgirls approached her—well-dressed, comfortable-looking girls—swinging their book-satchels and lunch-baskets and laughing and talking gaily as they passed. None of them noticed the forlorn little figure, but the child looked after them with longing eyes. Why was she so different? The contrast added to her misery.

Presently, as she watched them, they separated and scattered in different directions, and now one alone was left in sight—the tallest of the little company—a girl with a sweet, thoughtful face and a more quiet and lady-like manner than any of the others. She, too, disappeared, going in at the door of a large candy-shop on the next square.

"Oh!" exclaimed the girl, "I wish I had spoken to her. She must have some money, or she wouldn't go in there. I'll ask her when she comes out." And with rapid steps she followed and waited outside the shop door.

Meanwhile, Julia Middleton, unconscious that any one was interested in her movements, had given her order to the woman behind the counter: "Twenty-five cents worth of those fresh caramels in the window."

Evidently she was a regular customer. The woman laughed as she turned to weigh them. "I see you keep an eye on us," she said.

"Oh, yes. Thursday is caramel day," Julia answered. "How nice they are." Then, as she laid down a half-dollar, she added: "You can give me as many more in a separate paper."

The second package was not for herself. She would take it to May Allison, who was her dearest friend, and who fully shared her taste for nice candies.

The two dainty white parcels deposited in her lunch-basket and the empty purse in her pocket, she left the shop; but she had not taken half a dozen steps when she was accosted by the child with the basket:

"Please buy a paper of pins, oh, do please buy them."

A paper of pins! Never in her life had Julia bought with her own money anything so useful and commonplace. But there was such heartfelt entreaty in the voice that she stopped.

"I can't," she said. "I am very sorry, but I haven't any money. I have just spent the last cent."

"Oh—" The child made a despairing gesture. "Why didn't I stop you before? I haven't sold a thing to-day."

"And will they beat you if you go home without any money?" Julia asked, remembering certain mournful tales she had read.

"No; my mother never beats me." The answer was prompt and a little resentful. "She let me have a dollar to buy things with because I begged her, and now I can't get it back. I've been out all day, and I can't sell nothin'." The tears that had been gathering as she spoke now overflowed, and the girl sobbed and cried bitterly.

"Don't cry," said Julia, more than half inclined to cry too. "That won't do any good. You are cold and hungry. Come home with me, and I will see what can be done."

The promise of assistance was rather indefinite, but the poor child was so disheartened that she was ready to grasp at any outstretched hand. She dried her tears and walked on beside Julia in silence.

It was not a large or a handsome house where they finally stopped, for the Middletons were by no means wealthy people. An old-fashioned cottage standing back from the street was their home.

"Come in," said Julia as she opened the gate and led the way through a pretty garden already gay with early spring flowers. "And now tell me what is your name."

"Susie Carter," said the child.

Julia took her in at the back door, which opened into a large, light kitchen where a woman stood at a table, ironing.

"O Nora! is mother gone? I quite forgot."

"Yes, she's gone, and Miss Ann isn't come yet," Nora answered, putting her iron on the stove and turning to look rather suspiciously at Susie. "Who is this?"

"She's a little girl who is going to have dinner with me, if there is any," said Julia, "and I hope there is, for we are both hungry."

Nora said nothing. She did not like beggars, but if Miss Julia chose to ask one to dine with her, it was her own affair. She opened the oven door and took out part of a meat pie warmed over, some baked potatoes, and a small rice pudding. These she carried into the dining-room, where the table was already prepared for Julia's dinner, and added another plate and knife and fork. Then she went back to her ironing.

"Now, Susie," said Julia, "while we are having our dinner you must tell me all about it, only you must not cry any more, you know, for tears are salt."

It was not a long story. Susie's mother was a widow and went out to do washing. She was not strong and the work was very hard for her. There were only two children. Jack, who was younger than Susie (and she was only 12), earned a little money by delivering an evening paper; and Susie thought she ought to earn something too. She knew a girl who went out with a basket and sometimes made a dollar a day. So she had begged her mother to let her go.

"Mother didn't want me to do it," she said, "but I kept begging and teasing till she gave me a dollar she was saving up for a pair of shoes. I thought I could get another to-day and buy them for her right off; and now—" Susie's voice choked, but she made a brave effort and went on—"now I haven't got a cent to take home to her."

"Perhaps you will do better to-morrow," said Julia. It was the only comfort she could give. She was greatly perplexed; she had brought the girl home forgetting that her mother was going to the country to spend a few days and sure of her ready sympathy and assistance. Now, what could she do?

The door-bell rang. There was no mistaking the quick, decided ring. Julia sprang up. "I will go, Nora," and she flew to open the door.

A tall, elderly woman stood there, energy and promptitude plainly legible in every line of the straight, upright figure and the thin, pale face; but quite as much of kindness in the dark-blue eyes and the winning smile with which she greeted Julia.

"O Aunt Ann, how glad I am to see you! You've come just in time to help me."

"What is it now?" Aunt Ann asked in a tone of amusement, as if she were accustomed to such demands for assistance.

"Oh, I haven't torn my best dress, or sprained my ankle, or upset the washstand this time. I've got a poor child on my hands who must be helped, and I don't know what to do with her."

"Where is she?"

"In the dining-room, eating her dinner."

"That's a good beginning," said Aunt Ann, who had gone straight to the spare bedroom and was putting away her bonnet and shawl. She had come to stay, and she waited for no invitation to make herself at home. "What do you know about her?"

Julia told the story.

Aunt Ann made a queer little sound in her throat, as she often did when annoyed by the stupidity of other people.

"I hope it will be a lesson to her," she said.

"Well, don't scold her, auntie," said Julia, coaxingly.

"I will if she deserves it," said Miss Ann; "now we will go and talk to her."

But there was no scolding in the kind tone in which she spoke to the girl who had finished her dinner and was waiting for Julia's return.

(Concluded in our next.)

GOOD HEALTH.

Treatment of Bright's Disease.

The increasing prevalence of this disease renders any general information in regard to it, coming from an authoritative source, of considerable interest. We give the following from Semmola, of Naples, taken from an article published by him in the *Wiener Medizinische Blatter*. He advises strongly against allowing a patient who is suffering from nephritis to come in contact with cold in any avoidable way. Such patients are excessively sensitive to cold, and cold baths are followed by great shock and depression. Violent massage and exercise of the muscles the author also strongly deprecates as followed by great shock and weakness.

He would advise the patient to live in a dry and equable climate; to strictly avoid all exposure or going about in severe winter weather; to practice mild gymnastics in a comfortable room rather than venture into a temperature below 18 or 20° C. The author emphasizes the remarkable sensibility of the skin of the sufferer with Bright's disease to all variations of temperature. Sodium iodide and chloride is advised in doses as large as tolerated. When, after two or three weeks, albumen has not entirely disappeared and dropsy has been relieved, phosphates of sodium or calcium are given in quantities as large as 40 grains or a dram daily. The efficacy of these drugs the author believes consists in their power to promote the assimilation of albumen.

The methodical inhalation of oxygen, which Semmola has urged since 1867, has been repeatedly proved to be of the highest benefit. Albumen soon disappears after its use, and although casts may remain in the urine, the patient's general condition is so much improved that the author thinks we have here an argument for the dyscrasic or hæmatogenic origin of Bright's disease.

All astringents are considered not only valueless, but also injurious. Especially is the action of ferrum sesquichloratum and plumbum aceticum thought injurious, because of their astringent influence on the capillaries of the skin.

OBESITY CURES.—Prof. Wenternitz, a German medical writer, has written a series of papers against the numerous obesity cures which have of late attracted so much attention. These interesting papers conclude as follows: "Methodic excitation of sweat, influence of cold, appropriate and systematical work increases the physiological fat-combustion so powerfully that these factors not only deserve more attention than has been hitherto bestowed upon them, but also render useless the strict and one-sided cures as employed at present." Work is the great natural invigorator of the human system. When man was told he must get his living by the sweat of his brow, it was more to teach him the true way to promote health than as a sentence to punishment. Exercise—work—is the best preventive of all the "ills that flesh is heir to" that was ever devised.

LOCKJAW CAUSED BY A COLD.—John McDermott, of Stephentown, recently died in Hudson, N. Y., after three days' illness, of lockjaw, caused by a severe cold. It was a very rare case. The physicians attending him had never heard of such a case.

DOMESTIC ECONOMY.

Veal Cutlets.

Wipe, remove the bone, skin and fat from a slice of veal; cut into pieces for serving; season with salt and pepper; roll in crumbs, dip in egg-crumb, and egg and brown in salt-pork fat; put into a stewpan; make a brown gravy by browning, one tablespoon butter; add two tablespoons flour; pour on slowly two cups hot stock or water; season with salt and pepper, add one tablespoon mushroom catsup and one teaspoonful Worcestershire sauce; pour over the cutlets and simmer 45 minutes.

A well-known marketman says people often ask for veal for cutlets, but they haven't the remotest idea what portion of the meat they wish. A slice from the leg is used, and it should not be very thick; if too thick, pound it. Cut up into pieces of a suitable size for serving, and if some are not of good shape, skewer into form with a toothpick, and this will hold them in place until stewed, when it can be removed.

The object of the frying is merely to brown the cutlets.

Water will do as well as stock for this brown sauce, as the cutlets are to be stewed in it. For a brown sauce, which is to be poured over a dish of meat, the stock is better on account of the added flavor.

The two tablespoonfuls of flower is a rather large amount, but when flour is browned it needs a greater quantity than when a simple thickening is desired, as the browning uses up some of the starch of the flour and so reduces its thickening power. Season as directed in the recipe. Many will prefer the flavor of the mushroom catsup and will use that exclusively. Pour the sauce over the cutlets in a saucepan, cover and stew slowly for three-quarters of an hour.

This is an excellent way in which to cook veal, as it gets thoroughly done and is very tender—a consummation most devoutly to be wished in any dish of veal.

Advice Wanted.

EDITORS PRESS:—Will you kindly publish a recipe for a meringue that will not *fall?* We know of a number of apparently good recipes, but invariably, when taken out of the oven and allowed to stand for a short time, the meringue falls and becomes tough, like leather.—Z. B.

What have our readers to say on this point? EDS. PRESS.

BREAKFAST EGGS.—Boil six eggs 20 minutes. Remove shells and take out the yolks; cut the whites and six mushrooms into dice; melt one tablespoonful butter, add one tablespoonful flour, pour on slowly one cup hot white stock and two tablespoonfuls cream; add one bay leaf and one slice onion, the whites of the eggs and the mushrooms. Cook five minutes; take out the onion and the bay leaf, put in the yolks and serve.

RAGOUT OF BEEF.—Cut one pint cold meat into one-half-inch dice, removing fat, bone and gristle. Put the meat into a stewpan, cover with boiling water and simmer slowly two or three hours; then add one-half can mushrooms, cut fine, two tablespoonfuls wine; salt and pepper to taste. Wet one tablespoonful flour to a smooth paste with a little cold water, stir into the hot liquor, cook ten minutes and serve.

LENTIL SOUP.—One cup lentils, soaked for several hours. Put them on to boil in three pints cold water; simmer until dissolved. When soft, rub through a strainer. Thicken with one tablespoonful butter and one tablespoonful flour cooked together; add one-half teaspoonful sugar, one teaspoonful salt and one saltspoonful pepper; add water, milk or stock to make the consistency you wish.

POLISH FOR KID SHOES.—In answer to a recent request for some preparation for polishing kid shoes without cracking the kid, H. Lucke, of 24 Geary street, says "Glycerole" will answer.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, April 30, 1887.

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Wine Presses—W. H. Worth, Petaluma, Cal.
Ayrshire Cattle—Killip & Co.
Incubators—G. G. Incubator Co., East Oakland.

See Advertising Columns.

The Week.

Perhaps the most exciting topic of the week in agricultural circles is the wheat rush. Sales of wheat which has been held some time in store has sold as high as $1.77½ per cental, to the great advantage of the holders. There is a wide disposition to sell the coming crop, and we hear of "seller 1887" at $1.67½—with the grower entering the gamble and taking the chances therein. We have always advised against such propositions, and we trust that all inexperienced people will take the trouble to inform themselves as to the burdens they assume. It is just possible that some turn in affairs may call for more money than they will find it convenient to put up.

The season has advanced well during the week. Growth in field, orchard and garden has been magnificent, and no general disasters have portended. The fruit crop is safely advancing. The importance of thinning out and thus securing acceptable size cannot be too strongly urged. Size is of the most advantage when there is an immense amount to be marketed, and this is just the time when there is most small fruit. The close of the week will end a most delightful April, and as the 1st of May will occur on Sunday, it will fall to the lot of April to crown the May Queen.

Give the Law a Trial.

The effort to put in operation a piece of radical legislation is like breaking in a new pair of shoes. The body politic may limp a few days; sundry corns may give painful evidence of alarm. One almost sighs for the old customs, laws and ways of doing things. At least this is the experience the public is just now passing through in regard to the application of the interstate law. It was enacted in obedience to a popular demand for more adequate relief against existing or possible abuses. It is the first time there has been a general movement to curb the growth of corporate power, and settle the question whether the people or the railroad companies shall dominate the Republic. That it will pinch at some points, that some interests may suffer for awhile, is not strange. This is apt to be the result of all economical and police regulations. The quarantine is often very inconvenient. The law that closes the gambling dens entails distress on the owners of the property. The Emancipation Proclamation beggared thousands. With all the drawbacks and defects, real or imaginary, there can be but little doubt that the interstate law will result, all in all, for the public welfare, the good of the greatest number, the aim of all just legislation. It is undeniable that it will cure certain abuses. It prohibits the free pass system by which so many politicians and editors were cheaply bribed. It prevents discrimination among shippers. Every one knows how giving of special rates made the Standard Oil Company the most despotic monopoly in the land, and has tended to break down the just and natural law of competition in other directions.

It is the long and short haul clause that has given the chief uneasiness to the public mind. The action of the railroad companies in making a schedule of advanced rates has produced widespread alarm. And this is not strange, for it requires very little knowledge of commercial principles to see that, were this policy adhered to, it will be destructive of several important industries on the Pacific Coast. This pushing up of rates may have been done in a moment of petulance to bring the law in bad odor, but, be this as it may, it is obvious that business principles would soon bring about an equitable adjustment of affairs. The long hauls are between competing points, and now that pools are abolished the road that suspects it is not getting its share of the business will be certain to cut rates. Then there is no law to prevent shippers directing their trade to the lines that give the best terms. Hitherto this could not be effective, since the earnings of the roads were distributed according to a fixed percentage, whether one line or another carried the freight. Then the transcontinental lines that have little or no competition cannot afford to kill important industries in a mere spleen. A corporation, no more than a man, is disposed to cut off its nose to spite its face. It is certain these carriers can adjust freights upon a competitive basis and make a fair profit, for it is common fame that during the war of rates last year, when charges were reduced to 50 and in some cases to 75 per cent, traffic was so largely increased that the roads paid quite as well, if not better, than under the old and more exorbitant schedule.

But be all this as it may, it is now apparent that this law possesses elasticity sufficient to meet all exigencies. The first impression was that the Interstate Act made no provision for granting special privileges to certain commodities. Somebody may have taken a spiteful interest in creating that impression. However that may be, it is certain that no danger lurks in that direction. The Commissioners say in their reply to the petition of the Traders and Travelers' Union:

Congress has not taken this management of railroads out of the hands of the railroad companies. It has simply established certain general principles under which interstate commerce must be conducted. It has enacted in Section 1 that all charges for interstate transportation "shall be reasonable and just," has prohibited in Section 2 all manner of unjust discriminations, has forbidden in Section 3 all undue and unreasonable preferences and advantages, has required in the same section reasonable and equal facilities for the interchange of traffic, and has prohibited in Section 5 the pooling of freights.

That, in substance, is the interstate law. There is nothing novel in these provisions. They simply bring back the business of common carriers to the well-settled principles of common law.

Under this interpretation there is no apparent reason why shippers of fresh fruits, canned goods, wool, raisins and other commodities may not secure special freight privileges. Matters at present are in temporary suspension, but it is already foreshadowed that the Commissioners will construe and apply this law in accordance with its scope and spirit, which is that transportation "shall be reasonable and just."

Later.

The special apprehension which existed in California as to the working of the law with reference to our products, which must seek Eastern markets, has been set at rest for the time being. It was telegraphed from Washington, April 23d, that the Interstate Commerce Commission had made an order suspending the fourth section for 75 days, subject to revocation and with the proviso that intermediate rates shall not be raised above those in force April 20th. This applies to the Northern Pacific, Southern Pacific, Atchison, Topeka & Santa Fe and St. Louis & San Francisco lines.

The fruit interest has received special consolation in the following assurance from the chairman of the Interstate Commission:

WASHINGTON (D. C.), April 22.—*S. F. Leib and others, San Jose, Cal.:* Railroad officials state to us that the present tariff on fresh fruit is satisfactory and no changes are proposed. We see no provision in the law for preventing the establishment of fair and reasonable rates to Eastern points for fresh fruits. T. M. COOLEY.

Another dispatch was sent by the fruitmen to Judge Cooley asking if the same construction of the law will be made as to dried and canned fruits. If this should also be granted it will relieve much anxiety and beget confidence in the satisfactory disposition of our grand fruit crop which is now progressing toward maturity.

In the matter of wool freight rates, the suspension of the section of the law which has worked such advance may relieve the situation for the present, although at this writing it is not known what the rates will be. Our woolmen will have to figure on certain opposition from the East in their efforts to perpetuate low rates. It is telegraphed this (Wednesday) morning from Philadelphia as follows:

Charles M. Hill, secretary of the Philadelphia Wool Merchants' Association, writes to the Interstate Commission, inclosing a copy of resolutions of the association, protesting against the suspension of the long and short haul for Pacific wools. In its preamble the document recites that the rates from San Francisco so the East have been from 50 to 62 cents per 100 pounds, while from many nearer points it has been from $3 to $4.50.

We imagine this is really a sharp move of the wool importers to give them an advantage over California wool which comes in competion with their wares, rather than any care for the American producers.

Grasshoppers in Sacramento County.

It seems likely that there will be a grasshopper attack of greater or less extent this year, as it is reported from Galt that the young locusts (*Melanoplus devastator*) are appearing in considerable numbers. The region about Galt suffered considerably two years ago, and the evil extended also to other parts of the valley. Our readers will remember the ways of killing them, which were fully described in the RURAL at the time. Should the visitation prove serious, we will reproduce the information. Prof. Riley, in an interview, briefly enumerated these remedies as follows:

At this season, while they are yet unfledged, they may be killed in large quantities in various ways—crushed by rollers on smooth ground, burned in windrows of straw, or trapped in ditches. A dry ditch, properly made, will intercept their movements and kill vast numbers, especially if deeper pits be made at intervals in the bottom of the ditch. A scum of coal oil made to float on an irrigating ditch will destroy all that are driven into it. One of the best remedies, especially when they begin to get their wings in June, is to kill them with poisoned bait, made of one part of arsenic to six parts of bran, moistened with sweetened water, or syrup diluted in water. The cheapest wholesale way of clearing large grainfields is to draw shallow sheet-iron pans over the field, the bottoms of the pans to be covered with coal tar or coal oil.

Fortunately for California, locust visitations are not general, as they are on the great plains. There, is, however, much harm done in infested localities, and remedial agencies are important. We should be glad to hear from our readers if they find the insects encroaching upon them.

Olive Oil Prospects.

Those who have planted olives and are in doubt about the outlook of the industry, and the possible adjustment of demand and supply, will find much comfort in some remarks which the Los Angeles *Tribune* reports as coming from Ellwood Cooper, of Santa Barbara, the well-known olive-grower. He said olive oil-making (if you know how to do it) is the easiest possible way of making money. The demand is increasing 10 times as fast as the supply. Last year he sold his oil for $12.60 per case; this year he has advanced the price to $24. He says this advance puts the oil beyond the reach of most people, it is true; the demand will be for invalids and medicinal purposes; but he can sell all he can make at that rate. He is increasing his olive plantation as fast as possible.

This confidence of Mr. Cooper is certainly refreshing when mails and telegraphs are bringing such doleful items as the following:

The former great industry at Florence of making their flasks for olive oil is said to be wholly destroyed by the English flooding the market with cottonseed-oil imitations, which is now almost universally sold under the name of olive oil. The matter, it is said, is going to be raised in the House of Commons, under the Adulteration Act.

It is quite possible that the last sentence gives the key to the future of olive oil. If legislative enactment in all countries can be had against selling cottonseed oil as olive oil, the genuine article will certainly be vastly helped. Cottonseed oil is a good oil, but not to be sold under a false name. Let it be sold for what it is. Keep it out of olive oil, keep it out of butter, and it is all right. It is quite possible that relief may come to the olive oil as it has come to genuine butter, by laws against selling the false as the true. California has asked Congress to do this, and will continue to ask it, although with the great cottonseed interest to fight in Congress, the right will be a difficult one to gain.

PLEURO-PNEUMONIA.—The United States Department of Agriculture is now ready for action under the new Animal Industry bill passed by the late Congress. Governor Bartlett has received from Commissioner Colman a certified copy of the new rules and regulations for the suppression and extirpation of pleuro-pneumonia. They provide for the work being done entirely by the United States Inspection Bureau of Animal Industry, and all expense is to be paid by the National Government. The cooperation of State authorities is invited, and whenever the rules cannot be enforced in the State from any causes the commissioner will quarantine the State from shipping any cattle to other States, Territories or foreign countries.

SERVED HIM RIGHT.—The Carson *Tribune* tells how an angry teamster the other evening was beating one of his mules on the head with a wagon-stake most unmercifully, when the mule ahead came to the aid of its comrade, and flinging out both heels caught the two-legged brute in the abdomen and laid him severely out. The S. P. C. A. should make mule No. 2 an honorary member.

NEW SUPERINTENDENT AT VINA.—Capt. H. W. McIntyre, of St. Helena, has accepted the superintending of Stanford's mammoth winecellar and 3000-acre vineyard at Vina. Immense buildings are now under construction which will contain all the latest improvements. Capt. McIntyre is president of the State Grape-Growers' Association and a man of wide experience in winemaking.

THE EXPERIMENT STATION LAW.—If newspaper reports are correct, the U. S. Attorney-General has decided that there is really no money appropriated for the carrying out of the new law for experiment stations, and that nothing can be done until another session of Congress, when a specific appropriation must be made.

A GENTLEMAN who resides near Ætna Springs, Napa county, informed us this week that the springs seem to be prospering. The farming interests thereabouts all look well. The grain prospects are good, and all the residents are in high spirits at the encouraging outlook.

THE big land grants in San Luis Obispo are being divided.

The Subterfuges of Criminal Practice.

A Scotch judge, who had spent some time traveling through this country, made the remark that America had good criminal laws, but they were applied with such uncertainty as to be well-nigh worthless. The charge is true. The technical absurdities of the Criminal Court are so well known that it has become proverbial that the average criminal trial is a judicial farce. Is the man guilty of the crime charged? is the only question that common sense asks; and it would seem as easy to ascertain as any other fact, but the proceedings of the court, to the uninitiated, at least, seem a cunning device for preventing that discovery. Indictments or informations are quashed for the most frivolous informality. The very best men in the community are excused from the jury because they have formed or expressed an opinion predicated upon a rumor, and the challenges are used not to secure an intelligent and honest jury, but to impanel 12 dunderheads.

But if it happens that a good jury is found that promptly discharges its duty, as in the Goldenson case, then comes a motion for a new trial, based upon preposterous assumptions and suspicious affidavits, that may be easily forged to order, by methods known to the shrewd practitioner, and if the motion is denied, then comes an assignment of errors, usually a string of trifling technicalities, mere quiddities of the law. This is bundled into the Supreme Court, for what is the Supreme Court for but to hunt for flaws in the proceedings in the court below? It is not the question of guilt with which they are concerned, but with the jots and tittles of the proceeding, and that would be a remarkable Supreme Court that could not, after a microscopical search, find some slight inaccuracy in the rulings of a Superior judge. It took two years to hang the strangler Wheeler, because the presiding judge had allowed the District Attorney to read a few passages from "Brown's Medical Jurisprudence" to strengthen his argument. This may be the law according to ancient sheepskin literature, but to the average man it is mere word-dawdle and a trifling with justice.

It is this equivocal practice that encourages the attorneys of Alexander Goldenson, convicted of the murder of little Mamie Kelly, to argue that a new trial should be granted on the ground that the jurors had read the newspapers during the trial which contained statements prejudicial to the defendant; that they arrived at their verdict by lot; that some one was willing to swear that the defendant's grandfather had been crazy for 30 years, and more balderdash of the same sort. The lawyers are not to blame. Catching at straws to save a drowning client is their trade. It is the system that hedges the way of justice with dilatory pleas and absurd subterfuges that is open to criticism.

In this case there is no cause of complaint against judge or jury—the jury did their duty and Judge Murphy has held the scales of justice with a firm and impartial hand. The proof is invincible that Goldenson brutally murdered an innocent and unoffending schoolgirl, and the plea of insanity is a thin mask to conceal depravity most foul, as it usually is. This case will most likely go to the Supreme Court, and should it turn out that pitfalls and loopholes are discovered in the proceedings sufficient to result in setting this monster free or softening his penalty, then it will be only one more proof that the whole system of criminal practice needs overhauling.

Irrigation Map of the San Joaquin.

It was clearly shown during the last session of the Legislature that the State Engineer, Mr. Hall, had secured during the years of his incumbency a valuable collection of data concerning irrigation in California, and that much of it would soon appear in form for public use. We have mentioned several times his large map of the San Joaquin valley on the scale of two miles to the inch, which was so full in topographical features that it would demonstrate the feasibility of any projected enterprise in distributing waters. We are glad to learn from the *Record-Union* that Mr. Hall is about to issue a reproduction by photolithography of his large map. It will be reduced in size so as to represent three miles to the inch and will be issued in four sheets, of which the first covers the vicinity of Stockton, the second that of Merced, the third that of Fresno and Visalia, and the fourth the region from Tule river, south to Bakersfield. Of the map, as a whole, the *Record-Union* says:

It is a fine exhibit of the topographical features of the valley. The foothills around the valley are indicated by carefully executed hachuring, and are covered with a tint of brown. The alignment of water-courses and canals received especial attention, and no other map exists showing so fully and accurately this class of information in any part of the region covered. The intricate network of rivers, creeks, sloughs and canals in the Visalia district, those of the Kings river country, and of the Merced district, as well as the drainage lines in San Joaquin county, are here, for the first time, correctly mapped.

This map is rendered especially valuable by affording a reliable key to the general elevation of the ground in all parts of the valley. Contour lines or lines of uniform elevation are shown on it, generally 20, occasionally 10, feet apart in vertical elevation. These are based on the results of special surveys and a careful compilation of data collated from every available source.

At notable points along the main water-courses, elevation of low water, of ordinary high water and of extreme floods are given.

A concise history of Tulare lake is printed on the map. The location of all artesian wells in San Joaquin valley is shown, together with a number for easy reference to the information collected for each in the volume of physical data, soon to be ready for distribution.

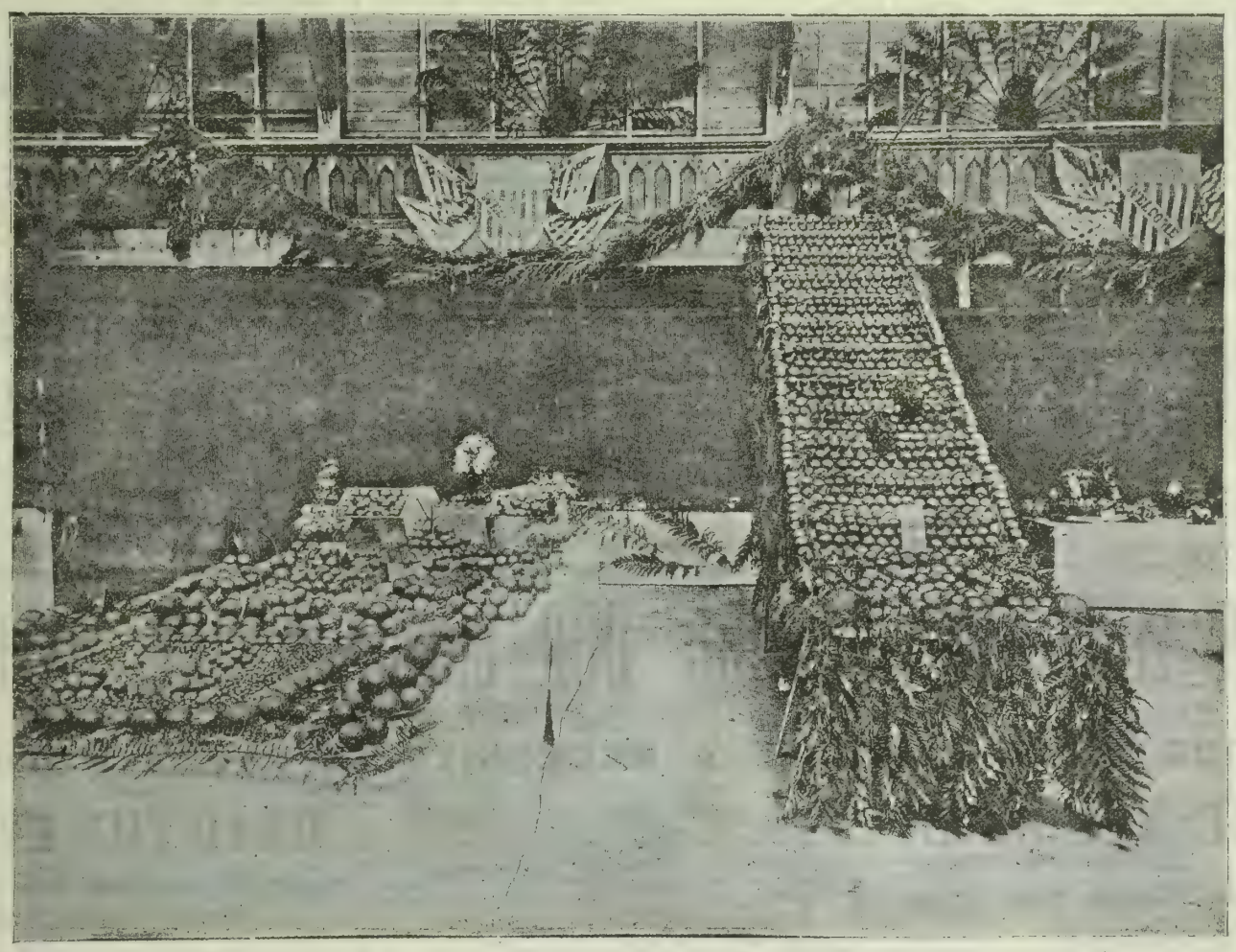
On the map are shown in a light red tint the lands capable of being irrigated from large canals with water from the streams entering the valley from the east. In a darker red tint the lands are indicated which are at present covered with water rights. Bottom lands are tinted green; swamp and overflowed lands lighter green; irrigated lands blue, etc., making the effect of the whole at once pleasing and very convenient for reference.

Here for the first time are designated on a map the irrigated lands of the Kern river delta, the scattered tracts of irrigated lands along Tule and Kaweah rivers, the great extent of irrigation from Kings river, the lands commanded and those irrigated by the canals on both sides of San Joaquin river, the irrigations from Merced river, etc.

The map shows at a glance the great possibilities for a future extension of the irrigation works in the valley and the desirability of utilizing to the fullest extent possible the vast volumes of water which flow to waste during the annual high stages of the river.

A Handsome Design in Fruit.

Our flower and fruit fairs are calling out from the creative California mind many designs which add much to the interest and beauty of our exhibitions. We have given pictures of some of these in previous issues of the RURAL. Quite a number more will be mentioned in connection with descriptions of the various flower shows, which may be found upon another page. The design, of which an engraving is given herewith, is one which accords well with the popular idea of California. It was wrought out at the recent Citrus Fair at San Jose, and was called the "Golden Stair." The epithet golden, in modern parlance, pertains to but two parts of the universe—California and the Abode of the Blessed; and there may be thought no sacrilege in the association, for California is the nearest approach to heaven which limited geographical extension admits.



THE GOLDEN STAIR—A DESIGN IN ORANGES AT THE SAN JOSE FAIR.

The Golden Stair, as shown in the engraving, found its most literal significance in the material used in its construction, which was oranges; and the richness of their auric hue, which, unfortunately, the printer cannot catch, attracted all eyes and led to more careful study of the design. The engraving does not give adequate idea of the hight of the design, as the photograph was taken from above. The stair, which was designed and constructed by Dr. W. S. McMurtry, of Los Gatos, extended from the main floor to the balustrade of the gallery—the distance being that at which galleries are commonly hung in pavilions. The entrance to the Golden Stair was marked on either side by two immense pumalos, thus forming a portal which was not inaptly called the Golden Gate. At the head of the stairs, hovering above it, was a golden dove made of acacia blossoms, while at the foot were golden slippers made of marigolds, by Miss Adda C. Munn.

Upon the left of the engraving is a very handsome table of fruit which also shows much taste in arrangement. Dr. McMurtry received much credit for his contribution to the fair.

Possibilities of the Sugar Business.

The United States consumes 1,200,000 tons of raw sugar annually. Of this amount Louisiana produces 150,000 tons; the Eastern States 35,000 tons (maple sugar); the Sandwich islands (free of duty) 65,000 tons. The balance, 950,000 tons, comes to us from the various cane-producing countries—chiefly (about 75 per cent) from Cuba. A small amount of beet-sugar finds its way here from Europe. From the above figures it will be seen that this country sends abroad about $57,000,000 annually, and pays in duties half as much more for an article, all of which would be produced at home in the form of beet-sugar if the National Government could only be induced to take the proper steps to encourage such industry. The complete success which has attended the manufacture of beet-sugar in this State, against the free importation of cane-sugar from the Sandwich islands, affords abundant proof that such is the fact. Why other factories than the one at Haywards have not been established here is a surprise to every one who does not understand the mysteries of sugar manipulation in California. The same power which has continued in idleness the large sugar plant on Eighth street in this city for the last 15 years, or more, has, no doubt, been that which has thus far prevented the establishment of other beet-sugar manufactories in this State. If California could throw off this powerful influence, and convert her wheatfields into beet culture, it might readily add from 10 to 15 millions to our annual agricultural products and fully half a million to our population.

It is announced from Washington that the Commissioner of Agriculture has concluded arrangements for carrying on sugar experiments during the coming season in New Jersey, Kansas and Louisiana. In New Jersey, at Rio Grande, a series of experiments will be made to determine the possibility of manufacturing sugar on a small scale profitably. At Fort Scott, Kansas, arrangements have been made with the Parkinson Sugar Company for trying a new system of cleaning and cutting cane and preparing it for diffusion. Experiments will also be made in the use of lignite or soft coal as a filtering and discolorizing medium. In Louisiana a committee of the Sugar Planters' Association has selected the plantation of ex-Governor Warmoth for experiment in that State. The latest and most improved of circulator diffusion battery is already building for these experiments, and with it will be used a form of cane-slicer, which has already given perfect satisfaction in Java and Australia. An apparatus will also be erected at this station for practicing the process of carbonatizing both mill and diffusion juices. The lignite process of filtration will also be employed and a comparison made between the results of milling and of diffusion.

THE railroad from Ballona harbor is now completed nearly to Los Angeles. The San Francisco Bridge Company is pushing the work on the piles at the mouth of the harbor. The heavy dredge will not begin inside the harbor until June, and then the digging will continue until a depth of 30 feet is obtained.

THE loss to Pacific Coast shipowners during the recent severe gales which have swept our coast is estimated at from $700,000 to $800,000. Since November 15th last over 20 vessels and 90 lives have been lost.

Flower Festivals.

Of the floral festivals that have been held during the past fortnight, such ample and elaborate reports pour in upon us from north and south as would easily fill pages upon pages. First in the alphabet and highest on the map comes

Chico.

Whose second annual display of flowers opened Thursday evening, April 21st. Armory Opera hall was transformed into one vast bower, whose brilliant beauty of blended hues and rich perfumes proved quite enchanting.

The most conspicuous feature as one entered the hall was a pyramid of various choice exotics and flowering plants from Gen. Bidwell's hothouse. It rose to a hight of 15 or 20 feet—a mass of rare and beauteous blossoms, surmounted by a palm.

Among the designs were the flags of many nations, placed at the upper end of the building. Largest and foremost was "Old Glory," six feet by four, the stripes of white rosebuds and red geraniums, the background for the stars blue larkspurs, and the stars themselves marguerites. This was the work of Mrs. E. T. Reynolds. The flags of France, England, Prussia, Germany, Russia, Italy, Spain, Denmark, Iceland, Japan, China, Siam, Egypt and Mexico were exquisitely done, on a smaller scale, by as many persons.

Very handsome was the full-rigged ship "City of Roses," borne on a blue sea of wild flowers. Her hull was made of roses—reports agree in this, but differ as to their color; her deck was pink; her rigging of white tuberoses, and her sails of snowball blossoms, with her name wrought across them in carnations.

A large swan made of white pinks, with a collar of violets about its neck and swimming in a basin of roses, was much admired. It was sent by Huntington, Hopkins & Co., of Sacramento.

Another design that attracted much notice was a great watch of marigolds, lettered with a big "S" in purple pansies. It was shown on a background of blue velvet and looked very natural.

Lake Tahoe in miniature consisted of a clear mirror, around which, artistically disposed ferns and mosses stood for the grassy shore, while trees were represented by small palms and shrubs. A tourist, made of roses, lay in a hammock, and appeared to be listening to the ripple of the waters.

The three links of the I. O. O. F. formed a design about six feet long and three wide. The background was pure white snowballs, and on this the links were worked. The left was made of pink roses, the center one of purple larkspurs and the right of dark-red roses. This was perhaps the most elegant piece on exhibition.

Several fine displays came from the Bell conservatory. Thirty-two varieties of choice roses, all labeled, were shown by Wm. Proud, from General Bidwell's gardens.

It is impossible for us even to mention more than a few of the most marked exhibits, and we refrain from giving names, in most instances, since so many must be passed unnoticed. The bouquet, fancy goods, refreshment and Japanese booths, and the candy wigwam, must barely be alluded to.

There were many visitors from S. F., Oakland, Sacramento, Marysville and neighboring towns, and the throngs attendant were lavish in their praises, agreeing that Chico's second floral fair outdid the first in the wealth of flowers shown, the number of designs and the taste evinced in th eir making.

The festival proved a success financially and otherwise, and closed on Saturday night "in a blaze of glory."

Los Angeles.

Two weeks ago the auspicious opening of the third Annual Flower Festival, at Los Angeles, we briefly chronicled. The papers of that city have since been teeming day by day with long detailed accounts of the fair's progress, up to its triumphal ending Saturday evening. We cull and condense a very scant report.

The festival was held in Hazard's pavilion—a large unfinished building, destined for an Inventors' Institute—176x120 feet upon the floor, with a hight of 100 feet to the apex of the roof, and having a gallery on three sides. The available exhibition space was about 47,000 feet, counting balcony and vestibule.

The floor-space was laid off with aisles radiating from the great rose-bank spoken of in our notice of the opening. This bank contained some 25,000 roses arranged in stripes of different hues. A fountain rose from a bed of callas in the center; then came the stripes of roses, alternating with cedar and cypress boughs for two-thirds of the circumference, narrow in front, but merging toward the rear in one broad sweep of mingled tints, from the darkest Black Prince to the whitest Bon Silene.

The roof, balconies and pillars were decorated with fans of palms, stars of agave, festoons of evergreens, and boughs of pepper tree and cypress.

The "Ship of State," the most prominent of all the designs, had its hull of red geraniums, the words "Southern California" banded in white pinks, the spars and rigging of evergreen. It reposed on a sea of verdure and many-tinted pansies, and bore a cargo of orange-branches laden with the yellow fruit.

Another noticeable piece was the huge slipper of marguerites, in pink and dark-red geraniums, the top of smilax, the lacing of dark-red pelargonium, and the heel of marigolds.

The Old Mission church of San Gabriel was marvelously represented in a design 12 feet long, four feet wide, and five feet high. The walls were built of marguerites, the abutments of cypress, and in the bell-towers hung tiny abutilons. The roof was of dark geranium, imitating tiles.

In the orange booth, a Maltese cross of pansies in a bed of sweet alyssum was especially admired. A wonderful cluster of 32 large oranges hung from the center of this booth.

In the Santa Monica booth, violets in a broad expanse simulated the ocean, and laved the shore of pelargoniums, above which rose bluffs of moss. A wharf of roses and ivy stretched out for some distance, and a steamer of marguerites and marigolds, with stack of ivy and rigging of smilax, was heading for the dock.

The bulbous booth was very interesting to connoisseurs. There were John McMannis' large and valuable collection of potted bulbous plants, including a beautiful variety of ixia and some deep-red Italian anemones; Mrs. Harris' potted gladiola; Mrs. A. M. Hough's large collection, some of which are very rare—as the pelargonium triste, allium narcissum, iris kampferri, Japanese and Spanish iris, etc.

The special rose booth constituted one of the most interesting exhibits. It was in the shape of an outline star, the lines being in evergreen, trimmed with ivy. In banks along its sides were shown the pick of the choicest gardens—the rarest varieties and the finest specimens of all varieties of roses, all carefully and legibly labeled. One day there were 200 different varieties. Mrs. Noel, of East Los Angeles, here exhibited a single stalk bearing 57 buds and 13 full blown Washingtons.

On the night of April 19th, the natives were astonished, for there in front of the stage rose in crystal brilliancy an "ice palace," nine feet square at the base, six feet high, and containing five tons of ice. It was beautifully modeled, and with its walls, parapets and towers glittering in the electric light, made a spectacle long to be remembered. It was designed by Rev. M. F. Colburn, and the ice was contributed by C. M. Coulter, of the Home Ice Co., and G. E. Milliken, of the Los Angeles Ice Co., who erected the building. The weather was so warm that the palace melted within 24 hours.

At the beginning of the second week the flowers were all renewed by the bevy of busy lady-workers, and the festival "came out in a brand-new dress," looking handsomer than ever.

The nightly attendance was reckoned by thousands. Nearly every evening was spoken of as a "crush" or "jam," there being as many as 7000 in the pavilion at once—and sometimes it was with no little difficulty that the allegorical procession of sylphs, fairies, pucks and posies made its way around the building. Beside the charming tableaux and processions, a variety of entertainments were given on different nights by the Band of Hope, the Bicycle Club, the Seventh Infantry Band, and the Uniformed Rank K. of P.

One incident, too interesting to pass unnoticed, was the receipt, by Mrs. Judge Widney, of the following missive from three little girls:

EAST LOS ANGELES, April 16.—*To the big President of the big Flower Show:* My folks wouldn't let me go to your flower show in the evening, so we thought we would have a flower show of our own.

We only charged three cents admition, because ours wasn't so big as yours. We did not make very much, but will send it over to help you.

The little sum was 80 cents, in dimes, nickels and cents, which was most willingly put with the big sum, and gratefully acknowledged.

The *Times* of Sunday, 24th, speaks thus: "The ladies of the Flower Festival Society closed their brilliantly successful exhibit at the pavilion last night, and to-day they can rest under the benediction pronounced on good and faithful servants. It was a glorious success from every point of view, an honor to the organizers and executors, a credit to the country, a blessing to the noble cause in which the society is enlisted. The society hoped to raise by this affair at least $7000, to pay off the indebtedness on its Flower Festival Home, erected and furnished during the past year. The proceeds are something over $11.000, so that the ladies can discharge their obligations and have a handsome fund remaining."

(Continued on page 389.)

COL. WARING COMPLIMENTED.—The State Board of Health held its regular quarterly meeting at Sacramento on the 23d. Among its doings was a resolution, passed unanimously, that "this board notices with pleasure the advent on our coast of the eminent sanitary engineer, Col. Waring, and regards it as an evidence of our progress in sanitary advancement, and trusts that our larger cities will take advantage of his presence to devise plans for improved sewerage."

OUR WINE-GROWING INTEREST.—According to the San Francisco *Merchant* there are now in California at least 4000 wine-growers, and the area planted in vines is not less than 160,000 acres. The value of this land, with the improvements, is not less than $60,000,000. Employment is found for at least 40,000, who, with their families, represent a producing population of 150,000 persons.

"BUT FOR THE 'SMOKE BALL' OUR CHILD WOULD HAVE DIED!"

SAVE YOUR BABIES! A NECESSITY IN EVERY HOME!

READ THE EVIDENCE!

What Mr. and Mrs. Tennant Think of the Carbolic Smoke Ball.

"BUT FOR THE 'SMOKE BALL' OUR CHILD WOULD HAVE DIED."

SAN JOSE, March 26, 1886.

Carbolic Smoke Ball Co.—GENTLEMEN: It is with great pleasure that we testify to the merits of your medicine, the "Smoke Ball." We purchased one of your Smoke Balls a short time ago, and used it with great success for colds in the head. Consider it the best remedy we ever had in our family. Not long since our little girl had a severe attack of membranous croup, and if it had not been for the "Smoke Ball" she would have died. The first application gave instant relief, and a few applications completely cured her. We consider the "Smoke Ball" a sure cure for croup. Gratefully yours,

F. W. TENNANT,
MRS. F. W. TENNANT.

No. 180 W. San Fernando street, San Jose.



READ THE EVIDENCE!

What Mr. Hammersley says of the "Carbolic Smoke Ball."

"I CONSIDER MYSELF ENTIRELY CURED."

SAN JOSE, March 27, 1887.

Carbolic Smoke Ball Co.—GENTLEMEN: I have been troubled with catarrh and neuralgia a great many years and have tried a great many different remedies, and have been treated by several so-called specialists—fees from $40 upward, payable monthly in advance—but never obtained any permanent relief. I have also been troubled of late with deafness in the left ear, which had been gradually growing worse. Last January I was induced by a friend to try some of your free tests, and felt a relief after the third inhalation. On January 20th I purchased a "Smoke Ball," and I now consider myself entirely cured of neuralgia and catarrh, and now I can hear as well as any one. I will be happy to indorse the "Smoke Ball" to any person whom you may wish to refer to me. Yours very truly,

A. S. HAMMERSLEY,
577 Ninth St., San Jose.

The **Only Absolute Cure for Catarrh, Neuralgia, Nervous Headaches, Catarrhal Deafness, Sore Throat, Inflamed Tonsils, Bronchitis, Granulated Lids, Weakness of the Optic Nerve, Diphtheria and Quinsy.** We have proved that the "CARBOLIC SMOKE BALL" and the "DEBELLATOR" will cure, by the numerous Home Testimonials published, and which we will be pleased to send to any address.

"IT CURED MY CATARRH, NEURALGIA AND DEAFNESS."

THE COMPLETE TREATMENT includes the "Debellator" package, unequaled as a blood purifier, which must be used in Catarrh when there is a dropping of mucus into the throat, biliousness, or where the bowels are irregular or there are stomach or kidney disorders. It should be used in all cases of Catarrh, Asthma, Bronchitis, Hay Fever and Ulcerated Sore Throat. Price of the complete treatment, $5; "Smoke Ball," $3; "Debellator" package, $2. One complete treatment is generally sufficient.

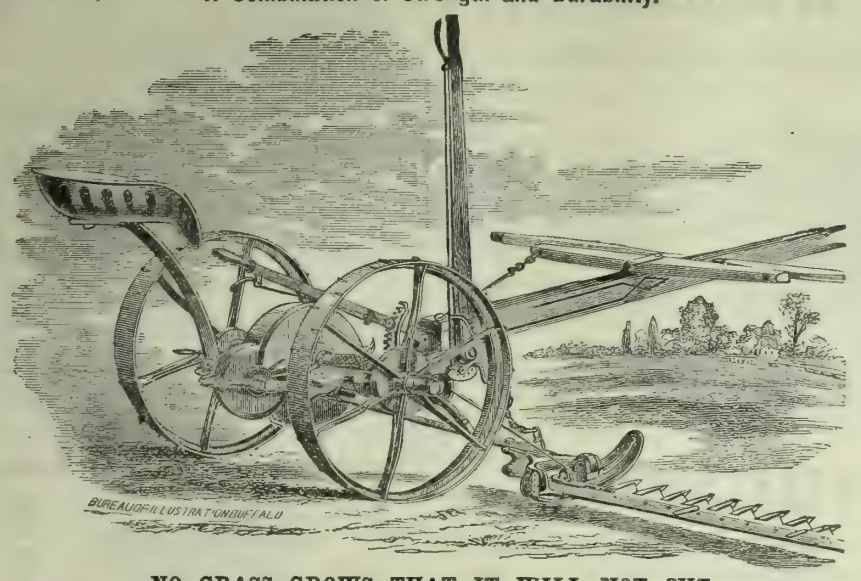
MAIL ORDERS receive careful and prompt attention. State diseases or symptoms in writing, addressing MAIN OFFICE. Complete treatment mailed on receipt of price, $5, and four cents in stamps. "Smoke Ball," $3 (four cents in stamps). "Debellator" packages, $2. Remit by post office or Wells, Fargo & Co. money order, or in coin by Wells, Fargo & Co.'s Express.

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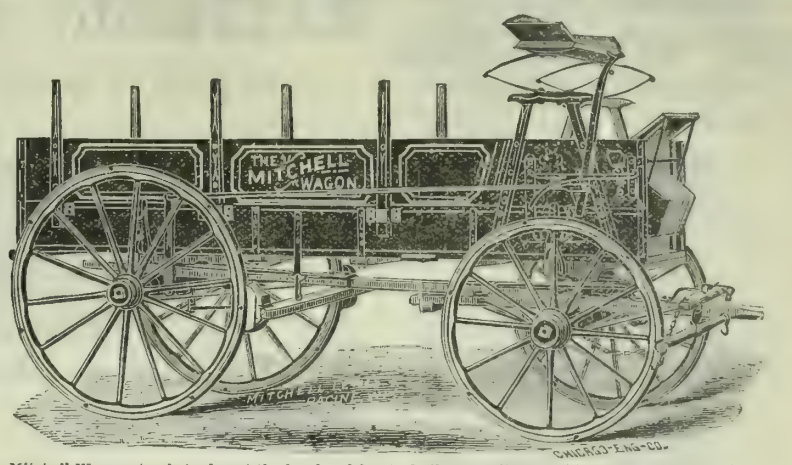


NO GRASS GROWS THAT IT WILL NOT CUT.

In any field, whether it be heavy matted clover, or the tangled and heavy grass of the roughest meadow lands, it will go through without choking down or causing the team to stop to clear the guards, or for any other purpose.

There is none more durable; none easier for team; none with a more perfect tilt; none with lighter draft; none will cut closer; none with better pitman connection; none more compact; none more perfect in every respect.

THE MITCHELL WAGON.



The Mitchell Wagon stands to-day at the head and front of all competitors, and is known far and wide as the strongest, most durable, best ironed, best finished and lightest running wagon made in the world. They are unequaled in quality and finish, and are "MONARCH" of the road wherever known and used; are fully warranted for one year—any breakage occasioned from defects in material or workmanship will be made good without cost to the purchaser, upon application to the undersigned, with satisfactory proof of such defects.

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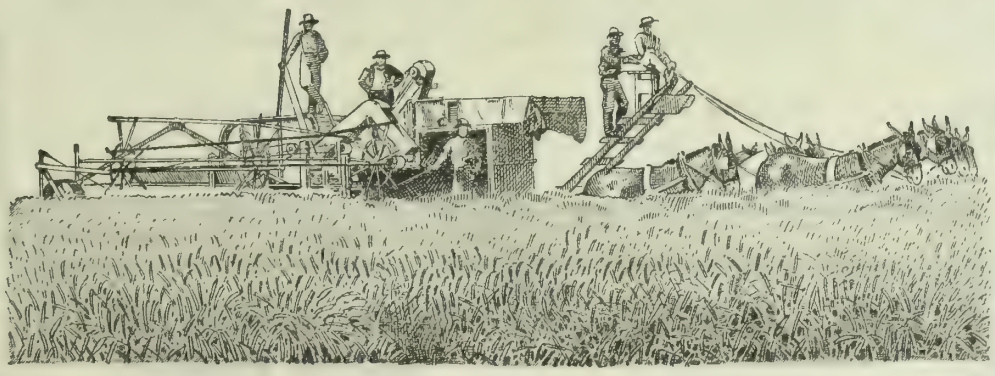
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THE IMPROVED LINK AND
V-BELT COMBINED HARVESTER!

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The Stockton Wheel Co.,

STOCKTON, CAL.



For further information and Price Lists address STOCKTON WHEEL CO., Stockton, Cal., or the undersigned, importers of

Wagon & Carriage Materials and Hardware.

HOLT BROTHERS,

30 and 32 Main St.,

SAN FRANCISCO.

Our Improved Harvester will, without question or doubt, be the most popular machine in the grain field this year, as it certainly was last year, wherever used. Everybody who saw it working in the grain, running over rough ground, through hog wallows, over fields studded with trees, with as much ease and regularity as though the fields were smooth and level. Read the testimonials of several farmers who used our Harvester last year.

We have improved our machines over last year very materially, strengthening the weak points by putting in additional truss-iron braces, increasing or lowering speed when required, shortening the chain belts and substituting pivot and sliding boxes for the old fashion solid boxes, which will not give a particle as the frame warps or twists out of line. The greatest and most desirable change we make this year is discarding the sleeve on the main shaft, which caused us more trouble last year than anything else, by sticking to the shaft, making it grind the shaft and run hard. In a few weeks' time it wore away, leaving it rickety and causing the cylinder to run unsteady. This most desirable improvement makes it run one horse lighter at least.

Some of the agents of other manufacturers have sought to frighten farmers into buying their machines by telling them if they buy our Improved Harvester that they are liable to be prosecuted for infringement of patents. Now, these agents know, or if they don't know they ought to, that what they assert is false and malicious. Our Improvements are our own, and infringe upon nobody's patents. To allay all apprehension in the minds of intending purchasers, we say here that we will protect you against any and all losses on account of suits for infringements. The following are some of the advantages our Improved Harvester possesses over all others:

1. Our Improved Harvester runs FOUR horses lighter than any other machine made.
2. It is easily handled, and turns a square corner as readily as a mowing machine.
3. It is less liable to get out of order, and cheaper to keep in repair than any other machine.
4. It has no clumsy, expensive gearing to wear out or break.
5. It is run mostly by Link and V-Belts which, in case of breakage or accident, can be repaired in the field without loss of time.
6. Our Harvester makes no noise to frighten or irritate the horses, and makes less noise than ordinary headers.
7. Our Header is far the simplest and runs the lightest, and is the strongest and best. There are no Rickety Gears or Trembling Rods to break.
8. The Header may be raised and lowered instantly from any part of the Separator.
9. Our Harvester WEIGHS FIFTEEN HUNDRED POUNDS LESS than any other machine of the same capacity in the market.
10. It will cut, thrash, clean and sack more grain in a season, with less expense for labor and repairs than any other Harvester ever turned out.

Remember, all our Improved Harvesters are warranted to work well or no pay. Examine them before purchasing elsewhere. We shall sell our Harvesters upon their merits alone.

TESTIMONIALS:

GRAYSON, CAL., Feb. 21, 1887.

MESSRS. HOLT BROS.—Dear Sirs: As to your machine, we think it a good one. It saved the grain well. Had but little lost time; as to expense, $25 would cover the whole for the entire season. Number of acres cut, 1750. If we were going to buy another, we should certainly get one of yours. Respectfully, F. CARPENTER, R. BROWN.

OAKDALE, Feb. 21, 1887.

MESSRS. HOLT BROS.—Gents: I ran one of your Combined Harvesters last year. Cut 1950 acres of grain in 63 days. Did not lose over one day making repairs and replacing extras. Repairs cost about $10. I cut both light and heavy grain. It did good work, and the grain brought the highest market price, on account of its being better cleaned. I am perfectly satisfied with my purchase. I have worked with three other Combined Harvesters, and consider yours the best in the field for lightness of draft, durability and fine work.

Respectfully yours, D. W. CARMICHAEL.

GRIDLEY STATION, Sept. 22, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: I have used one of Holt Brothers' Link Chain and V-Belt Combined Harvesters, and consider it (in my opinion) the best Harvester made. This season I harvested 800 acres; averaged 23 acres per day, with 12-foot cut. I consider the draft is four horses lighter than either the Houser or the Young Machine. It does better in all kinds of grain than either of the above-named machines. I run the whole season without any breakage.

GEO. WICKMAN.

TURLOCK, Sept. 16, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: Your letter of the 8th inst. received and contents noted. In reply I will state that I think your machine is the best that is made. I cut 1350 acres of grain with it in 42 days. I did not have to repair the machine from the time I started till I quit running it. It runs lighter, and I think does the best work of any machine that I have seen. Very respectfully, ED. McCABE.

DIXON, Sept. 10, 1886.

MESSRS. HOLT BROS., San Francisco—Dear Sirs: Yours of Sept 8th at hand and contents noted. Will try to answer your questions as nearly correct as I can. Of course I have not seen all of the different Harvesters working, but from what I have seen and learned, will say that so far as my information and experience goes, your Link and V-Belt Harvester is, in all respects, the best in use. It did as good work, if not better work, than the Houser here. It pulls from two to four horses lighter than the Houser. My repairs were nothing; was not detained at all in my harvest on account of breakage. I cut 600 acres in 23 days, and moved four miles three different times. Yours truly, JOS. KLINE.

And Many Others.

TRADE MARK.



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ADAPTABLE to keep or transport all perishable articles in perfect condition. After 25 years of studying the various means of preservation for perishable articles, I have the honor to announce to the public that, having fully succeeded and completed my preserving process, I am now ready to build preserving rooms, either on a large or small scale. For further particulars address

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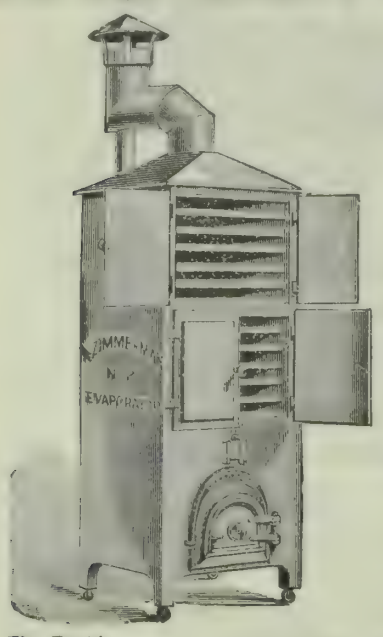
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The Most Economical!
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18,000 SOLD!

FIVE SIZES made with capacity of from 3 to 50 bus hels per day.

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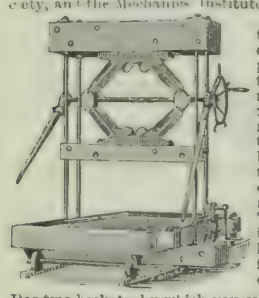
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Worth's Patent Combined Screw and Toggle Lever Wine and Cider Press.

First Premium awarded for best Wine Press at Sonoma and Marin Agricultural Fair, Sonoma Agricultural Society, and the Mechanics' Institute, S. F.



I desire to call the attention of wine and cider makers to my Improved Press. With this press the movement of the follower is 26½ inches in the first revolution of the screw; the last revolution is but 1-16 of an inch, thereby the power increases in the same ratio as the resistance. The platform is 50 inches wide and 10 feet long; is run back and forth under the press on a railroad track. Has two baskets, by which you can fill the second basket while the first one is under the press, thereby doing double the amount of work that can be done on any screw or lever press in the market that use only one basket, for this reason: While my press is working continuously the other kinds are doing nothing during the time they are emptying and filling their basket.

Printed Testimonials can be had on application of the following parties, who have bought my press: J. B. J. Portal, San Jose; Wm. Pfeffer, Gubserville; Joseph Walker, Windsor; Kate F. Warfield, Glen Ellen; Joseph Drummond, Glen Ellen; Isaac De Turk, Santa Rosa; John Hinkelman, Fulton; J. & F. Muller, Windsor; R. C. Stiller, Gubserville; Lay Clark & Co., Santa Rosa Vache Freres, Old San Bernardino; J. F. Crank, San Gabriel; James Finlayson, Healdsburg; P. & J. J. Gobbi, Healdsburg; Wm. Allen, San Gabriel; Wm. Metzger, Santa Rosa; J. Lawrence Watson, Glen Ellen; Walter Phillips, Santa Rosa; Geo. West, Stockton; Eli T. Sheppard, Glen Ellen; Rancheto Wine Co., Rancheto, Los Angeles Co.; Downing Fruit & Wine Co., Downey; J. L. Beard, Centerville; Wm. Palmtag, Hollister; A. Burnham & Son, Santa Rosa; Paul O. Burns Wine Co., San Jose; E. Emil Meyer, Santa Cruz Mountains, Wright P. O.; Wm. Hill, Petaluma; R. J. Northam, Anaheim.

Also manufacture Worth's Patent Hand and Power Grape Stemmers. W. H. WORTH, Petaluma Foundry and Machine Works, Petaluma, Sonoma Co., Cal.



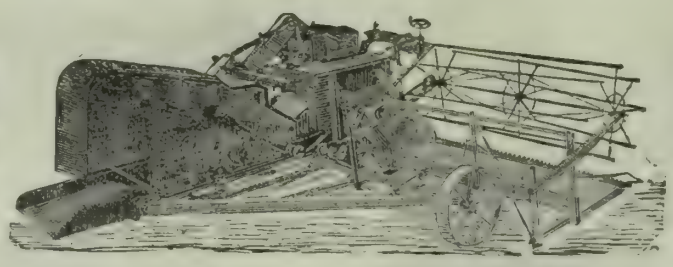
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THE PIONEER HARVESTER BUILDERS OF THE WORLD.

Not One of These Harvesters Has Been Returned.



Not One of These Harvesters Has Been Returned.

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☞ We refer you to the following-named persons who have had the Harvest Queen in use during the past harvest season: D. P. Edwards, Maxwell, Colusa Co.; H. Beckman, Woodbridge; H. W. Childs, Acampo; Ralston & Grigsby, Acampo; Yosemite Stage and Turnpike Co., Maderia; H. W. Patterson, Borden.

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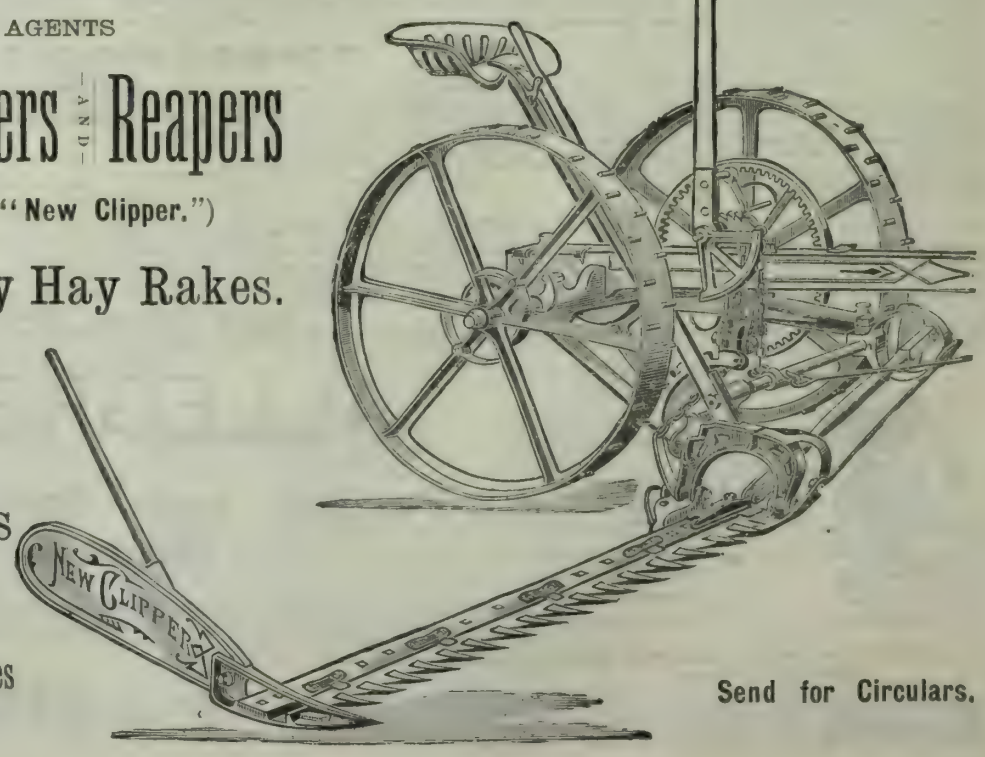
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Flower Festivals.

(*Concluded from page 386.*)

Oakland.

The Fruit and Flower Fair, announced for Monday of last week, was formally opened at Cavalry hall, Oakland, on Tuesday evening, and closed on Saturday night. The main hall was tastefully arranged, with large tables down the center for the fascinating displays of cut flowers and potted plants, whose fragrance filled the air, while electric lights and a band of music added to their brilliance and witchery.

James Hutchinson, of the 14th-street nursery, had a fine stand, containing over 200 varieties, attractively disposed. His pansy exhibit was very pleasing.

Mr. Gill, nurseryman from 28th street, showed about 150 varieties of roses, also a fine collection of camellias, all grown in the open air. (He stated that had the fair been postponed a fortnight, he could have exhibited 400 varieties of roses.)

F. Delger's collection of ferns was much admired. Huge adiantums in the middle of his table threw their lace-like fronds over several varieties of lycopodium, giving just the shading of color and size required for a perfect finish. Not a point of color anywhere, save a deep vermilion-tinted amaryllis.

The State University sent an interesting exhibit of economic plants, valuable for fiber, fruit, forage or perfume. Among them is the plant that supplies the flea powder of commerce. Bamboos, sugarcane, sumac, and coffee tree, olive trees in bearing, alligator pear trees, guavas and the strawberry tree of Southern Europe are displayed. Four varieties of flax and textile grasses are shown. The perfume plants from the University are the lemon-scented eucalyptus and the lemon-grass from India, which has fragrant blades.

One of the most attractive features was the collection of beautiful orchids from the bothouses of J. C. Ainsworth, of Claremont, shown in a small glass inclosure at the eastern end of the hall. Here too stood a noble *Adiantum Peruvianum*—the tree fern of Peru—an exaggerated maiden-hair. An Australian tree fern, grown in Alameda, was represented by a frond 5 feet 10 inches in length, a three-months' growth.

A. Chabot sent 1000 callas, a large orange tree full of ripe fruit, a beautiful camphor tree, and specimens of tea plant and bamboo.

The Japanese black Iris, from the grounds of James de Fremery, is a beautiful rarity upon this coast. The blossom is a network of fibers, connected by a delicate film, and looks like the finest lace.

Mrs. Frank M. Smith's table of cut flowers in wet sand was very elaborate and handsome.

A. Smith, of Redwood road, sent lemons ripe, green and blossoms, and oats over eight feet tall—the latter, however, not of this year's growth.

The special interest of Tuesday night was the competitive exhibition of cut flowers by ladies of Berkeley, Alameda and Fruitvale. Berkeley was construed to include Claremont and Piedmont. Two ladies represented this district, Mrs. James Palache, of Claremont, and Mrs. N. Collins, of Mountain View cemetery. In Mrs. Palache's display was a collection of golden roses, Bouquet d'Or, more than 500 blossoms from one bush. Mrs. Collins' exhibit was pre-eminent for the number of varieties of roses.

The ladies of Fruitvale brought a handsome design in roses, representing an archway, some four feet high. From the center hung a basket of fruit and ferns, and moss grasses formed the base. The apex and supports were decorated with bouquets, and orange and other fragrant blossoms were there in profusion. The centerpiece upon the Fruitvale table was from the gardens of Mrs. Brendemuhl. Beside many verbenas, marigolds, geraniums, lilacs, etc., it embraced over 50 varieties of roses of a quality even Santa Barbara might envy.

The Alameda exhibit was made by the young ladies of the Alameda Fruit and Flower Mission. The mid-line of their long table was given to choice roses in lavish supply. Adjoining these came a band of Paulonia imperials, interspersed with conerarios, wisterias and marguerites; then bands of calendulas, with groups of cactus, syringa, snowballs and foliage plants. Around the central standard vase, holding lilies by the hundred, were banked roses in glowing color, giving the needed finish to a lovely display. The name "Alameda" was made of red, white and pink camellias.

A novelty was the model of a stove of the New Oakwood pattern, full size, shown by the agent, E. F. Delger. The top was of red roses and the six lids of white roses; the doors of marigolds, bordered with bachelor's buttons and fine white flowers, and the legs were covered with fleur-de-lis.

Miss Lizzie Jean Blair, and O. Holen, a retired florist, competed for a prize of $10 offered for the best and finest floral piece. Miss Blair's design was an easel six feet high, holding a pot filled with flowers, resting upon a bed of roses, three feet by eight. It was pronounced by the ladies and amateur florists the most beautiful at the exhibition; but the judges, examining the pieces more critically, awarded the honors to Mr. Holen's star. The latter was six feet in diameter. The groundwork was of sofrano, la France and Marechal Niel roses, interspersed with Marie Antoinette, Duchesse de Brabant, Madam Pernot, Lambert, Parl de Yarden, Black Prince, Lovetta and Humar. The piece was tastily fringed with green and the harmonious and beautiful effect of the whole was hightened by sprigs of maiden-hair, fern and begonias.

Other prizes were awarded as follows:

For largest and finest display of plants in pots and cut flowers during the fair, $20. The jury awards one-half the prize to James Hutchinson, as complying with the terms of the offer in the matter of plants in pots, and one-half to A. Brendemuhl for cut flowers. (The amount was increased by Mr. Bentley to $15 for each.)

Finest display of not less than 50 varieties of cut flowers, April 20, $10; E. Gill.

Largest and most beautiful bouquet, April 21, $5; Mrs. F. Delger.

Finest display of ferns, $5; F. Delger.

Competitive display, April 19, by ladies of Alameda, Berkeley, and Fruitvale, $10; to the Alameda Flower Mission.

Largest and finest flower-piece, April 22, $10; to P. J. Keller's cross and anchor, with special mention of R. Trumbull's star, and stove by E. F. Delger.

Santa Barbara.

The Eighth Annual Flower Show at Santa Barbara began on Wednesday, the 20th, and was kept up till Friday night, surpassing all that have gone before it in number, originality and beauty of exhibits.

The columns and pillars of the agricultural pavilion were decorated with boughs of palm and cypress, with huge bunches of calla lilies arrayed at the base. The front of the stage bore the words "Santa Barbara," wrought in calendulas on a bed of curled parsley. This motto was flanked by an anchor of white marguerites on one end, and on the other by a harp in the same flowers with a deep border of scarlet geraniums.

Each ward in the city and the outlying districts of Mission Canyon, Carpinteria, Goleta, Montecito and the Mesa had booths filled with flowers and plants. Orchard Dale, a ranch in the suburbs, made an exquisite exhibit of bouquets in vases and on stands, with a background of fan-palms, pepper-boughs and evergreens.

Mrs. Theodosia B. Shepherd brought by stage from Ventura a splendid exhibit, comprising 35 varieties of double monthly carnations, among them the charming Buttercup, Venus, Field of Gold, Calico, Fairy Princess, Petunia, Century, and the Shakespearean set. Among her seedlings was the "Mrs. Severance," named in honor of Caroline M. Severance of Los Angeles—carmine and silvery gray—a lovely contrast in color. She has two varieties of bouvardias, three of begonias, a large double white clematis, blossoms measuring nine inches across—the "Fairy Queen." Her roses were not fully ready for exhibition; she brought with her but 12 varieties. She has some fine blooms, large and full of fragrance. She exhibits also several colors of Grant Perfection stocks, flowers two inches across; some very large dark purple pansies; ten varieties of Lady Washington geraniums; a fine narcissus—the Emperor; six varieties of fuchsias, eight of abutilon, and two of calceolaria

Mr. Ford, the artist, had a fine display from his gardens at Carpinteria. There were laburnum; yellow, purple and white magnolia; purple pawlonia; scarlet clianthus; pyrethrum, deep pink—insect powder plant; romneya, the California tree poppy; the plumy white heath, and superb ivies in large vases.

Among the noticeable designs were a harp six feet high in red and white roses by Mrs. Sexton; a violin in pink and red by Mrs. A. C. Scull; a mitre in locust flowers and geraniums by Mrs. E. Neal; a horseshoe by Mrs. D. H. Pearson; a cornucopia in pink and red roses, a cradle in white flowers, and a floral piano formed of vari-colored roses and smilax, with keys of sweet alyssum and heliotrope.

Joseph Sexton's floral parlor, with its arched ceiling of the date-palm's slender fronds, was an elaborate, artistic structure, too complex in tasteful and bewitching appointments for us to do it justice in a dozen lines. Among the fruits, also, a most tempting display, including cherimoyas, or custard apples, loquats, oranges and lemons, came from the grounds of Mr. Sexton at Goleta.

John Spence, the florist, had a bank of roses 6½x3½ feet. He also exhibited 150 varieties of rose, every one labeled. Mrs. Oliver, of Mission Canyon, showed a number of choice and rare plants. Among the exhibits were specimens of Japanese wild rose, Cherokee rose, the papyrus or Nile flag, a shrub or tree of the Jolanum bearing an egg-shaped fruit, similar to the guava, and a fine assortment of citrus fruits in variety.

Many Eastern people were among the visitors—E. P. Roe, the well-known author, for one, was making a special study of the roses—and boundless was their wonder and delight.

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Taught thoroughly by mail. Terms reasonable. Send for circulars. Miss Barrett, 240 Montgomery St., S. F.

SOMETHING that has never failed to do all that was claimed for it—Le Roi des Savon—the King of Soaps.

Building Wisely and Well.

The Constitution of the Knights of Labor has been undergoing revision by a committee chosen at the last National Assembly of that Order. The following provisions are of general interest and command our approval:

The obstacles thrown in the way of promiscuous strikes will be greater than heretofore. Every local assembly must obtain permission from the district assembly to which it is attached before it can go on a strike. If a strike is inaugurated without such permission the penalty attached is that the charter shall be revoked. The same law applies to district assemblies. This will prevent strikes by local assemblies that have only been recently framed and know little or nothing about the organization and discipline.

The temperance feature in the organization will be more strongly enforced than ever before. Not only will liquor-dealers be prohibited from membership, but no local assembly will be allowed to have any social gathering or any picnic where liquor is sold, and no member will be allowed to dispense liquor for and in the name of an assembly. If such should occur the charter of the local assembly will be revoked and the members expelled. Transfer cards, by which a member transfers his membership in one local assembly to another, will not be given to members as heretofore, but sent direct to the secretary of the local assembly he desires to join. This prevents men who desire to go into the liquor business from taking their transfer cards, as has been done, and having them framed and hung behind the bar.

"AS ITHERS SEE US."—Under caption, "THE RURAL PRESS," a few days since the Merced *Argus* thus discoursed: "We understand that an agent for the above publica tion was in town the present week, but as he did not honor our office with a call, we cannot mention his name nor remark upon his success in getting subscribers; but we can speak of the RURAL PRESS and its advantages in a family over some of the sensational dailies of the city. If parents would put such reading matter into the hands of their sons and daughters as is found every week in the RURAL PRESS, it might save them many bitter hours of regret. The simplicity and purity of the matter does not detract one whit from the intelligent, educational qualities in which it abounds. Such reading instructs and enriches the mind and leaves it pure, while the sensational display of filthy and disgusting details of crime make them familiar with the dark and criminal side of life, which causes unrest, fills the mind with impurities and often leads to dissipation. There is something homelike and domestic about this publication that should recommend it to every home in the land."

Is Death Painless?

A Philadelphia doctor, after years of careful observation, says that our demise is as painless as our advent to the world. This is certainly reassuring; yet notwithstanding these great inducements, we still do not court death, and shall continue to use Dr. Pierce's infallible remedy, the "Golden Medical Discovery," for consumption, spitting of blood, shortness of breath, weak lungs, coughs, bronchitis, and kindred affections of the throat and chest. It is unequaled. By druggists.

A Poor, Weak Sister,

Who is suffering from ailments peculiar to her sex, dreading to go to a physician, but knowing she needs medical help, will find, in Dr. Pierce's "Favorite Prescription," a preparation which will give her strength and new life through the restoration of all her organs to their natural and healthy action. It is the result of many years of study and practice by a thoroughly scientific physician, who has made these troubles a specialty. To be had of all druggists.

To break up colds and fevers, use early Dr. Pierce's Extract of Smart-Weed.

SQUIRREL AND GOPHER SMOKER.—We have received a very handsome and expressive chromo, setting forth the advantage of using F. E. Browne's squirrel and gopher smoker. According to the chromo, if a man uses the apparatus, he will have a fine house, be surrounded by heavy harvests, and look like a city banker. If he does not use it, he will live in a shanty and look like a tramp. A word to the wise is sufficient. The way to enjoy such benefits is to read Mr. Browne's advertisement in the RURAL.

First-Class Mowing Machine for Sale.

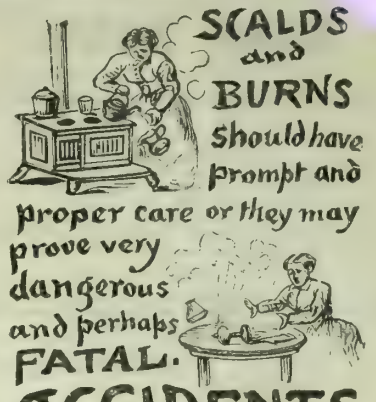
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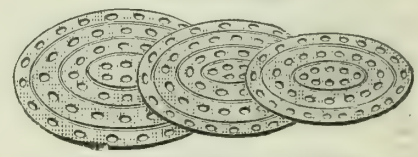
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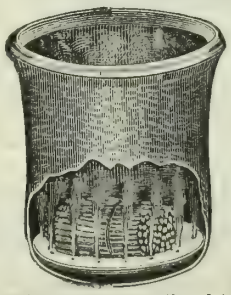
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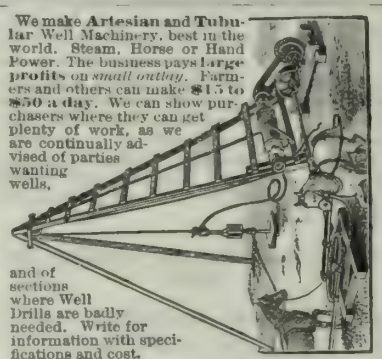
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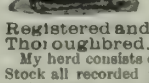
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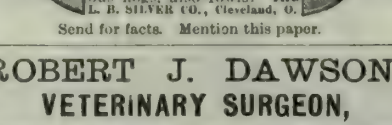


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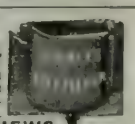
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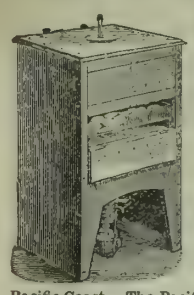
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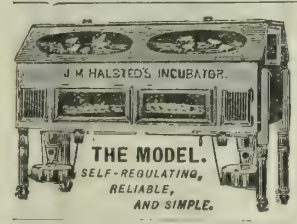
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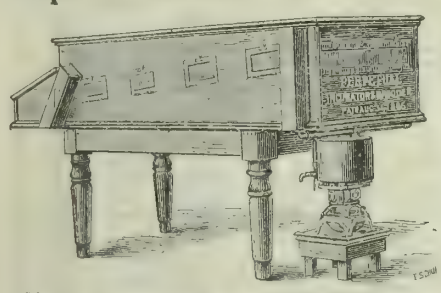
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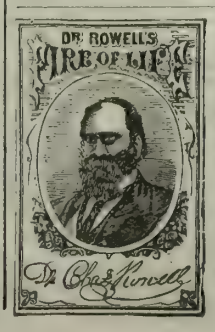
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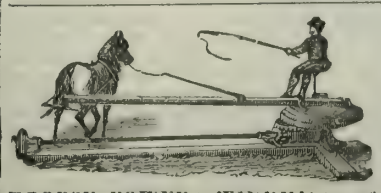
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 27, 1887.

Continued warm weather has forced growing vegetation and fruits well ahead, causing heavier deliveries of seasonable varieties than obtained last week. All advices report the crop prospects of fruit, root-vegetables, and gardenstuff in advance of last year. The cereal crop requires more rain, and in some sections, very soon. The wheat market at the East, and also in Liverpool, is gaining in strength, with higher prices obtained. The following is to-day's cable:

LONDON, April 27.—Cargoes off coast, firm; cargoes on passage and for shipment, firmly held, higher; Mark Lane, firmer; Cal. wheat off coast, 38s; Cal. wheat just shipped, 38s 9d; Cal. wheat nearly due, 37s 9d; French country market, generally dearer; Liverpool wheat, spot, hardening; Liverpool wheat, Cal. 7s 6d to 7s 9d; weather in England, cold for the season.

Foreign Review.

PARIS, April 23.—The wheat market is very firm, with good demand. Our requirements are 4,000,000 to 5,000,000 quarters.

LONDON, April 23.—The wheat market is steady, with a strong statistical position. Between this and harvest we require for consumption 11,000,000 quarters, of which our farmers can supply about 2,000,000, but the other 9,000,000 must either be imported or drawn from the slender stocks on hand. The millers have not yet recovered from the deluge of American flour in January, and are working short time all over the country. It is not surprising that they stubbornly resist the advance, but it is strange that they are able for so long to refrain from buying. Even if the whole Indian surplus, say 5,000,000 quarters, were to be shipped between this and the middle of May, we should still require all the wheat now on passage to carry us over till our own harvest, and part of the American visible supply as well.

LONDON, April 25.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: Supplies of native wheats are meager and values at provincial markets have risen 6d@1s. Sales of English wheat during the past week were 44,471 quarters at 32s 6d, against 32,512 quarters at 30s 11d during the corresponding week of last year. Foreign wheat is steadier and values are maintained. Flour is firmer. Corn is firmer. Fourteen wheat cargoes arrived; two cargoes were sold and two remained. The bulk has not yet been placed on sale. At to-day's market, wheat was steady. Business was limited. Foreign was rather firmer. Flour was in better demand at former prices. Corn was scarce and against buyers. Oats were 3d@6d dearer.

Eastern Wheat Markets.

NEW YORK, April 24.—Wheat has been active the past week, and at times the transactions were large and the fluctuations sharp, though generally within narrow limits. The export demand, largely for the continent, was good. Unfavorable crop reports from most of the winter wheat States, and a material reduction in the visible supply, were the chief elements of strength in the market. Spot closed ⅛@1⅛c higher and futures ⅜@¾c higher for the week.

CHICAGO, April 27—3 P. M.—Wheat was very weak again this afternoon, May declined to 81¾ and closed at 82. June closed at 82⅞. Large quantities were thrown on the market, and the excitement at times was sharp.

Crops at the East.

CHICAGO, April 24 —Following is the weekly crop summary of the *Farmers' Review:* The rains have materially improved the crop conditions in Kansas, Missouri, Kentucky, Illinois, and Indiana, and particularly the outlook for winter wheat; while in Iowa, Nebraska, Minnesota, and Dakota, the seeding of spring wheat has proceeded under generally favorable conditions. However, winter wheat, except in Missouri, is falling generally below that of last year. Very few counties of Ohio report prospects of an average crop. In Indiana the percentages of condition range higher and generally run from 85 to 90 per cent of an average. In Wisconsin the average of counties reporting this week ranges from 75 to 90 per cent. There have been fine rains throughout nearly all of Kansas, relieving the serious drought and improving the outlook for winter wheat. The average of the condition falls somewhat below that of last year. Reports from Iowa and Minnesota indicate that a full average acreage has been sown to spring wheat and an increase of acreage in Nebraska and Dakota.

New York Hop Market.

NEW YORK, April 24.— Hops—Quiet without change in any particular. All manner of reports come to hand with respect to the condition of the hopfields of this State, but they have no influence on the market in view of the generally slow demand.

Eastern Wool Markets.

BOSTON, April 23.—There has been a moderate demand during the week. Sales of all kinds were only 1,686,400 lbs. No change to notice in prices. The market remains steady. The improved tone is sustained and the opinion prevails that the bottom has been reached and no lower price need be expected on the new clip now coming in. There has been a fair demand for Territory wools, with sales of 871,000 lbs at previous prices. Fall Texas is in moderate demand with sales of 75,000 lbs at 18@19½c and 32,000 lbs on private terms. Oregon wool is quiet and steady. There have been sales of 25,000 lbs Eastern at 17@20c and 62,000 lbs Eastern on private terms. California wool is dull. Sales include 40,000 lbs spring and 71,500 lbs fall on private terms. There are large supplies of fall wool on the way here, which, probably, will arrive this week or next. Receipts of the week, 3060 bales domestic and 150 bales foreign.

NEW YORK, April 23.—The market has shown very little life through the week. Small lots have been picked up, but on the whole manufacturers have been indifferent, and buyers have had the advantage as to prices. The sales of the week included 10,000 lbs unwashed western at 31c; 60,000 lbs scoured Texas and Territory at 36@56c; 10,000 lbs Territory at 25c; 30,000 lbs Oregon at 20@22c; 25,000 lbs Montana at 21c; and 25,000 lbs spring California on private terms.

California Fruit in Chicago.

CHICAGO, April 23.—Lemons are firm, with a fair supply on hand. California varieties are rather slow of sale, being smutty, at $2 25@3 ₩ box. The supply of California oranges is fair. Choice sells fairly well and rules steady, but common and smutty varieties are dull and easy. Bright Riversides are quoted at $3.50@4; San Bernardino, $3.50@4.25; Santa Ana, $3@3.25; St. Michael paper-rind, $3.75@4; Orange, $2.50@3; Los Angeles, $2.75@3.25; Navel oranges, according to quality, $5@6; Duarte, $3@3.50; San Gabriel, $2.75@3; Blood oranges, fancy, $5@7; culls, $2.

Dried Fruit—Sun-dried apples remain very slow and easy. Evaporated are rather scarce and firm. There are no peaches in stock, excepting old, and they are dull, but choice new could be sold. California dried fruit rules steady. The demand is fair and stocks are rather light. Prunes, French, ₩ lb, 8@9¼c; plums, pitted, 10@11c; peaches, halves, 11@12½c; do halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London Layers, 20-lb boxes, ₩ box, $1.40@1.50; raisins, loose, Muscatel, ₩ box, $1.20@1.30; raisins, California Layers, ₩ box, $1.25@1.35.

Dried Fruit and Canned Goods East.

NEW YORK, April 24.—Canned Goods—In a jobbing way a moderate demand is reported, but interest in round lots is lacking. Peas have sold more freely. Corn is in fair demand. Fruit remains quiet. California canned peaches, $2.25@2.50; pears, $2.50@2.75; plums, $1.85@2; grapes, $1.75@2; apricots, $2.10@2.25.

Dried Fruit—Raisins quiet and prices steady. California loose Muscatel, two-crown, $1.25@1.30; do three-crown, $1.50@1.60; do Londons, $1.50@1.70. Prunes—Turkish, quiet; prime stock held at 4½c; Bohemian, more doing at 3¼c; French, firmer at 6¾@7¼c. Currants—The demand is fair at 4⅞c. Citron—Leghorn, 16¾@17c.

California Products at New York.

NEW YORK, April 24.—Beans—The stock of California lima beans is running very low and with a continued fair inquiry the prices are advancing, the quotations to-day being $1.85.

Seeds—California yellow mustard quoted at 4¼c.

Local Markets.

BAGS—The demand is slow, with heavy importations from Calcutta nearly due. Standard size is nominally at 5⅝@6 cts.

BARLEY—There has been more activity in the market the past week than at any time this year, with heavy sales on Call at advancing prices. It is claimed that there is a large short interest out. To-day's sales on Call are reported as follows:

Morning Session: Buyer season — 100 tons, $1.18½; 100, $1.18⅝; 100, $1.17⅞. Buyer 1887—100 tons, $1.24¾; 100, $1.23¾; 200, $1.23⅝. Seller 1887—300 tons, $1.09½; 200, $1.09; 100, $1.08¾ ₩ ctl. Afternoon Session: Buyer season—100 tons, $1.17½. Buyer 1887—100 tons, $1.23⅞ ₩ ctl.

BUTTER—The market, which was slightly easier, closes stronger, under a good demand and lighter receipts. Free purchases have been made for packing, to fill distant orders.

EGGS—The market is stronger, with strictly choice fetching an advance, owing to light supplies and a good demand. The stock of Eastern is lighter.

CHEESE—Owing to freer receipts the market closed easier, with concessions of ½ ct ₩ lb, made to effect quick sales

FLOUR—The market is very strong, with another advance expected at an early day. The consumption is increasing.

WHEAT—The market has been gaining in strength throughout the week, not only here but also in the East and in Europe. The advance is due, to a very great extent, to the large syndicate of capitalists controlling the available stocks, and also to a large short interest here, at Chicago and New York. Many of the short sellers are reported to be large operators in England and Scotland. About all the supplies in this State are held against sales on Call. To show the strong situation in this city we give the following: A farmer had in store, at Port Costa, 200 tons of fair wheat for which the highest bid two months ago was $1.37½, and to-day he sold at $1.77½. It is uncertain how high prices will go on Call, but there is one thing quite certain, the short interests will be made to fill, even if a much higher range in options is reached. The following are to-day's sales:

Morning session:—Spot, season's storage paid—400 tons, $1.83½. Buyer season—600 tons, $1.92; 100, $1.91½; 100, $1.91⅜. May—100 tons, $1.84. July—100 tons, $1.85; 100, $1.84½. Buyer 1887—400 tons, $2.05⅜; 100, $2.05¼; 200, $2.05⅛. Seller 1887—300 tons, $1.75⅛; 2500, $1.75; 200, $1.74⅞; 700, $1.74¾ ₩ ctl. Afternoon session: Spot, season's storage paid—100 tons, $1.83. Buyer season—300 tons, $1.90; 400, $1.90¾. July—500 tons, $1.83¾. Buyer 1887—200 tons, $2.04½; 100, $2.04⅜; 800, $2.04¼. Seller 1887—1100 tons, $1.74; 600, $1.74⅛; 1000, $1.74¼; 600, $1.74½ ₩ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The wheat market made a sudden jump on Monday of 2½ cts ₩ ctl on Call for buyer options. The advance was occasioned chiefly by the shorts buying. The present deal has been well handled for a success, but then it could not have been otherwise, backed as it was with almost unlimited capital and the statistical position of the cereal favorable for a strong bull movement. These statistics have been given almost every week for fully two months, in this department. It is claimed that unless the heavy shorts fill soon, prices will go still higher, not only here but in Chicago, New York, and also in Liverpool. Several thousand tons of No. 1 shipping were sold for actual delivery on Call at about $1.80, season storage paid.

In the sample market very little trading is reported, owing to the bulk of the grain being held against short sales on Call. That this theory is probably correct is admitted by many, owing to the large manipulator of futures loading a ship here for U. K. Oregon wheat instead of Californian.

Crop advices report that rains are required in Fresno, Tulare, and Merced counties, and also in parts of Stanislaus, San Joaquin, and the more central counties. The prospect, without rains soon, is rather discouraging for more than half a crop in several of the counties, and only an average in the others.

Late European advices do not report any material change in the wheat situation. Crops in Great Britain and on the Continent continue favorable, but the stock of grain, for the season, is very small. England will have to import, aside from the quantity afloat, fully 56,000,000 bushels from April 9 to August 31, 1887. France will also have to import very heavily, notwithstanding the high duties. The British Indian wheat crop of 1885–86 was 258,333,081 bushels from 27,392,792 acres area, and 302,000,000 bushels in 1884–85. The crop of 1886–87, just harvested (second report of the Indian Bureau of Agriculture the first week in March, to be followed by final report the first week in May next), indicates an output of about 231,000,000 bushels. The exports from India in 1886 were 43,160,000 bushels of wheat, which about exhausted the reserves and the crop of 1885–86. On this basis it is not probable that the exports to the end of March 31, 1888, will exceed 30,000,000 bushels, and may not be much more than 25,000,000 bushels.

The wheat and flour exports from the United States, from July 1 to April 10, 1886–87, have been, from both coasts, 121,799,214 bushels. The available export surplus in the country April 10, 1887, as per the government crop report and accepted calculations as to consumption, is about 26,000,000 bushels, besides 50,000,000 bushels minimum reserve. Late Eastern advices report good results from the rains of last week, but still the average outlook is below last year's at this time. All advices are confirmatory of that given last week, viz., a lessened acreage and the general crop outlook below an average. The prediction made in this department that barley was being manipulated on Call for a deal, is being verified. The stock in the State is not large for the season and under good control, while the crop outlook is not favorable for more than 60 or 70 per cent of the aggregate yield last year. The consumption is increasing.

Oats have been coming in more freely from the North, causing a weak market, owing to dealers and consumers buying as little as they can. Oregon and Puget Sound crop advices continue favorable.

Corn is firm, with a fair trade call for season.

Fruits.

The first cherries of the season were received last Monday and sold at 75 cts and $1 ₩ lb. They were received from J. M. Bassford, Jr., and G. H. Peabody, of Vacaville. Since then receipts have been more free. The crop this year is said to be very large.

The first gooseberries of the season were received on Friday last. A. Murphy of San Leandro shipped them. They sold at 10 cts ₩ lb.

Strawberries are coming in more freely and sell for less money. Raspberries are not coming forward freely, consequently they still fetch high prices.

Apples are neglected and sell slowly.

Oranges for local trade are slow, but there is a good demand for the mining sections and also up North.

Lemons are in good supply, but limes are scarce.

In dried fruits the market is very strong, with an advance in California French prunes and also in evaporated apples.

Raisins are steady, with a firm tone reported. The stock is not large for the season.

Live-Stock.

The consumption of meats is light, with butchers only buying from a hand-to-mouth way, owing to the hot weather. Beef cattle continue to be offered freely, with sales made at a still lower range. Mutton sheep are also in liberal supply, but they have freer sales than bullocks. Hogs are steady under light receipts. Calves and milch cows are unchanged. Draft horses are offering more freely, but no lower prices are given. There is a better inquiry for roadsters and general utility horses. Matched spans of carriage horses have ready sale.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8¼@8½c; first grade, grass fed, 7¾@8c per lb.; second grade, 7@—c; third grade, 6¼@7c.

MUTTON—Ewes, 6½; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8½c; small, 5@8c.

PORK—Live hogs, 4¾@5¼c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5¼c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Feedstuff.

Hay is easier for off grades, under freer supplies. The consumption is quite large throughout the State. Several carloads of choice were sold at a slight advance on our top quotations.

Bran and middlings are higher, and as barley is advancing, ground barley will also be marked up. In other ground feed there are no changes to note.

Vegetables.

New potatoes are in fair supply, with the quality improving. The crop promises to be very large. Old potatoes are steady at full figures under a good trade call.

Onions are weak at a decline, owing to the nearby trade taking more freely of new.

Asparagus and peas continue in liberal supply at low prices. Rhubarb is scarce. String beans, tomatoes and other seasonable vegetables are coming in more freely, causing shading in prices. The crop of all kinds is quite large.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	221,426	243,592
In port, disengaged	124,467	39,687
In port, engaged	3,862	32,276
Totals	349,755	315,555

The above gives a carrying capacity as follows: 1887, 545,238 short tons; 1886, 470,582 short tons; increase over last year, 74,656.

Hops are stronger under a good demand, with light stocks to draw from. Present advices from the crops on this coast are favorable

Wool has moved more freely, but the sales made were chiefly clips that were forced on the market. Large growers of choice wools are not offering their clips, believing that a lower range of freights may cause better prices.

Beans are steady, with a firm tone reported. Poultry, under moderate receipts and a fair call, ruled steady throughout the week.

Hams and bacon are firm, with a good trade sale reported.

Honey continues to hold to strong prices.

San Francisco, April 27, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 27, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 50
Butter	1 60	@	1 75
Pea	1 75	@	2 00
Red	1 40	@	1 55
Pink	1 25	@	1 45
Large White	1 75	@	1 85
Small White	1 75	@	1 90
Lima	1 75	@	2 25
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	15	@	18½
do Fancy br'nds	19	@	20
Pickle roll	18	@	20
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	9	@	10¼
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	20	@	21
do, store	17	@	19
Ducks	—	@	—
Oregon	—	@	—
Eastern	17	@	18
FEED.			
Bran, ton	21 50	@	22 50
Cornmeal	24 00	@	25 00
Gr'd Barley ton	25 00	@	26 00
Hay	10 00	@	14 00
Middlings	25 00	@	26 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR.			
Extra, City Mills	4 70	@	5 45
do Co'ntry Mills	4 20	@	5 20
Superfine	3 45	@	4 20
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 20
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 07½	@	1 15
Yellow	1 05	@	1 10
Small Round	1 10	@	1 20
Nebraska	1 05	@	1 10
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 10	@	1 25
Wheat milling,			
Gilt edged	1 80	@	—
do Choice	1 77½	@	—
do fair to good	1 75	@	—
Shipping choice	1 77½	@	1 80
do good	1 75	@	—
do fair	1 70	@	—
HIDES.			
Dry	—	@	16
Wet salted	8	@	9½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Silverskin	1 50	@	2 50
do new	1 25	@	2 00
NUTS—JOBBING.			
Walnuts, Cal., lb	12½	@	13½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	17	@	17½
Paper shell	18	@	19
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	2 00	@	2 50
Early Rose	1 60	@	1 85
Guffey Cove	1 80	@	2 00
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	1 60	@	1 90
Humboldt	2 00	@	—
do Kidney	2 00	@	—
Chile	—	@	—
do Oregon	1 65	@	1 90
Peerless	1 75	@	2 00
Salt Lake	—	@	—
Sweet Potatoes	2	@	3
POULTRY AND GAME.			
Hens, doz	6 00	@	7 50
Roosters	6 00	@	11 00
Broilers	3 00	@	7 50
Ducks, tame	8 00	@	10 00
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	2 00	@	2 25
do Goslings	2 50	@	3 00
Wild Gray, doz	—	@	—
Turkeys, lb	20	@	22
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon, Heavy, lb	9	@	10
Medium	9	@	10
Light	11	@	12½
Extra Light	13	@	13½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	12½	@	15
do Eastern	14½	@	15½
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	2c	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian Rye Grass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	2 00	@	2 75
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	14	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	18	@	21
Sac'to valley	14	@	17
Free Mountain	17	@	18
N'hern defective	—	@	—
S Joaquin valley	10	@	13
do mountain	13	@	15
Cava'y & Ft'ull	13	@	15
Oregon Eastern	15	@	20
do valley	18	@	22
Southern Coast	9	@	10

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, April 27, 1887

Apples, bx com	1 00	@	1 50
do choice	1 75	@	2 25
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries lb	25	@	30
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Gooseberries lb	6	@	10
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	—	@	—
do Cal. box	1 50	@	3 00
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines, box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	3 00
do Navels	3 50	@	5 00
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries dr	1 50	@	2 00
Strawberries dr	25	@	1 00
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	7
do evaporated	12	@	13
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	13	@	13½
Citron	25	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
do evaporated	20	@	30
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8½	@	12
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus ₩ bx	75	@	1 25
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	25	@	30
Pumpkins per ton	—	@	—
Squash, Marrow fat, too	10 00	@	12 00
do Summer bx	—	@	—
String beans lb	15	@	20
Tomatoes box	1 50	@	2 25
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	1 30	@	1 55
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, ₩ lb	15	@	25
Garlic, lb	1½	@	2½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, sk	50	@	75
Sweet Peas	1 00	@	1 50
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	20
Rhubarb lb	3	@	6
Tomatoes, lb	5	@	10
Onions, lb	2	@	3
Pickling	—	@	—
Silverskin	1 50	@	2 50
do new	1 25	@	2 00
Parsley, doz	15	@	20
Potatoes, sweet	2	@	3
Early Rose	1 60	@	1 85
Burbank	2 00	@	2 50
River reds	1 60	@	1 90
Humboldt	2 00	@	—
do Kidney	2 00	@	—
Peerless	1 75	@	2 00
Salt Lake	—	@	—
Chile	—	@	—
do Oregon	1 65	@	1 90
Guffey Cove	1 80	@	2 00
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
Squash, Hubbard	1 00	@	1 25
Marrow	1 00	@	1 25
Turnips, bbl	1 00	@	1 25
Yams	1 00	@	1 25

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING APRIL 19, 1887.

361,390.—RIVET—M. Arnold, S. F.
361,358.—NUTRITIVE TONIC—Wm. Henley, Alameda, Cal.
361,360.—WOVEN FABRIC—R. H. H. Hunt, S. F.
361,532.—MITER-BEVEL—L. H. Lewis, San Jose, Cal.
361,367.—TREATING NIGHT-SOIL—R. W. E. Mac Ivor, Sydney, New South Wales.
361,473.—LASTING MACHINE—S. N. Washburn, Union, Oregon.
361,663.—ELECTRIC ARC LAMP—G. A. Wiese, S. F.
361,341.—VELOCIPEDE MOTOR—J. Witt, Los Angeles, Cal.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order): American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

Fresno Agency.

Mr. William Pool, an active and enterprising citizen of Fresno county, has accepted an agency for all the publications issued from this office, and for securing subscriptions and advertisements for the same; also for receiving orders for engravings. Our friends in that section will place us under obligations by aiding him in his efforts in obtaining information for our columns, and in his business efforts for our papers.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
GEO. MCDOWELL—Tulare Co.
T. P. POWERS—Napa and Sonoma Cos.
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CHAS. LIST—Alameda Co.
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LIVE-STOCK SALE.—Many readers will be interested in the announcement in our advertising columns of a sale of Ayrshire cattle, horses, and Southdown sheep, by George Bement, the well-known breeder. Mr. Bement is an old breeder of Ayrshires and his love of live stock has also led him into other lines as well. His Ayrshire herd and Southdown flock include a number of prize-takers at the fairs. Killip & Co. will preside at the sale, which will take place on Thursday, May 12th. Full particulars of the sale may be found in the advertisement.

JERSEY CATTLE SALE.—A Jersey sale which should attract wide attention is that announced by Killip & Co. on page 390 of this issue. The sale is of registered Jerseys at Far Niente farm near Oakville station in Napa county. This band of Jerseys is a good one, and the trip to Oakville, in the heart of the Napa valley, is a delightful one. Catalogues can soon be had on application to the auctioneers at 22 Montgomery St., S. F.

WALTER J. FREEMAN, representative of the PACIFIC RURAL PRESS, was in town last week. He is a good business man and the paper he represents is the best of its class in the West—one which every farmer and vineyardist should have at his home. The PRESS has done and is doing a great deal of good for the ranchmen of this State. Subscribe for it and make your family as well as yourself happy.—*Lake Co. Avalanche.*

COTTON-SEED AND CACTUS FOR BEEF.—It is said that a trainload of 330 cattle, from Cotulla, Texas, which had been fattened on prickly pear and cottonseed meal, was lately marketed in Chicago. They attracted considerable attention, being the first large lot of cattle ever fed that way for market, and were sold at $4.25 per cwt.

"NATURAL LAW IN THE BUSINESS WORLD." This book by Henry Wood (Charles T. Dillingham) has just been issued by Lee & Shepard, Boston. It is an effort to apply natural law to the live social and economic questions of the hour. We would like to see a copy in the hands of every employer and employe.

TRUSTEES OF THE NORTHERN NORMAL SCHOOL.—Governor Bartlett has appointed the following trustees of the Northern California State Normal School: Gen. John Bidwell, F. C. Lusk, James W. B. Montgomery, A. H. Crew, and L. H. McIntosh, all of Butte county.

A DISPATCH from Guaymas to Health Officer Mears, of this city, states that there is no truth in the report of cholera at that place, and that there are no known cases of the disease at any points on the Mexican coast.

STATE BOARD OF SILK CULTURE.—The Governor has appointed the following members of the State Board of Silk Culture: E. W. Hilgard, Alameda; J. J. Rivers, Alameda; J. B. Mills, San Francisco.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Apr. 21-27.	Portland. Rain.	Temp.	Wind.	Weather.	Red Bluff. Rain.	Temp.	Wind.	Weather.	Sacramento. Rain.	Temp.	Wind.	Weather.	S. Francisco. Rain.	Temp.	Wind.	Weather.	Los Angeles. Rain.	Temp.	Wind.	Weather.	San Diego. Rain.	Temp.	Wind.	Weather.
Thursday	.10	51	S	Cy.	.00	63	N	Cl.	.00	60	NW	Cl.	.00	60	NW	Cl.	.00	74	W	Cl.	.00	62	NW	Cl.
Friday	.00	58	E	Cy.	.00	71	N	Cl	.00	68	NW	Cl	.00	70	W	Cl.	.00	81	SW	Cl.	.00	76	W	Cl.
Saturday	.00	60	NW	Cl	.00	73	N	Cl.	.00	71	NW	Cl.	.00	74	W	Cl	.00	80	W	Cl.	.00	72	NW	Cl
Sunday	.03	59	S	Cy.	.00	79	N	Fr.	.00	72	NW	Cl.	.00	78	W	Cl	.00	85	SW	Cl	.00	77	NW	Cl.
Monday	.00	61	SE	Cy.	.00	78	N	Cl.	.00	73	NW	Cl.	.00	74	SW	Cl.	.00	83	W	Cl.	.00	72	NW	Cl.
Tuesday	.08	60	S	Cy.	.00	79	N	Cl.	.00	71	NW	Cl	.00	64	W	Cl	.00	80	W	Cl.	.00	66	SW	Cl.
Wednesday	.00	62	N	Cy.	.00	83	N	Cl	.00	62	W	Cl.	.00	66	W	Cl	.00	68	W	Cy.	.00	66	SW	Fr
Total	.21				.00				.00				.00				.00				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Books for the Household.

We desire to give our readers every advantage in obtaining useful books at the most favorable rates attainable. We offer below a number which we believe will be found acceptable to many readers of the RURAL, and the reduced prices at which we can furnish them to our cash-in-advance subscribers—POSTPAID—will place them within the reach of many.

WHAT EVERY ONE SHOULD KNOW.—A Cyclopedia of practical information. Gives full directions for making and doing over 5000 things necessary in business, the shop, the farm, the kitchen and the home. Recipes, prescriptions, trade secrets, law, art work, agriculture, etc. Compiled from the most reliable sources and alphabetically arranged by S. H. Burt. 510 pages, cloth. Postpaid 50 cents. Regular price, $1.

THE WAY TO DO MAGIC.—Illustrated. Plain directions to enable any one to become proficient in Jugglery and Legerdemain. 60 pages. Postpaid, 10 cents.

THE TAXIDERMIST'S MANUAL.—Illustrated. How to Collect, Prepare, Mount and Preserve all kinds of Beasts, Birds, Insects, etc. By Prof. Graham Allen. 64 pages. Postpaid, 10 cents.

KNITTING AND CROCHET.—A Guide to the Use of the Needle and the Hook. Edited by Mrs. Croly (Jenny June). 144 pages, 200 illustrations. Postpaid, 25 cents. Regular price, 50 cents.

NEEDLE-WORK.—A Manual of Stitches and Studies in Embroidery and Drawn Work. Edited by Mrs. Croly (Jenny June). 126 pages, 200 illustrations. Postpaid, 25 cents. Regular price, 50 cents.

LADIES' FANCY-WORK.—A Manual of Designs and Instructions in all kinds of Needle-Work, embracing Embroidery, Kensington, Lace-Work, Tatting, Net-Work, Wax Flowers, Painting on Silk, etc. Edited by Jenny June. 152 pages, 700 illustrations. 25 cents, postpaid. Regular price, 50 cents.

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A SERIES OF DIRECT PRACTICAL ANSWERS TO DIRECT PRACTICAL QUESTIONS—MAINLY INTENDED FOR YOUNG ENGINEERS AND FOR EXAMINATION QUESTIONS.

—BY—

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This book is intended to answer not only "such direct questions as have been asked by both theoretical and practical men," but "questions chosen with the view of saving the reader a long search after some point, and enabling him to get directly at the information desired." Formulas and mathematical gymnastics are avoided. While the book is not written for professional men, it is technically correct and up to date. Published in two parts. Price of each part, $1, postpaid.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

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6.—To NEW Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
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Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present)..25

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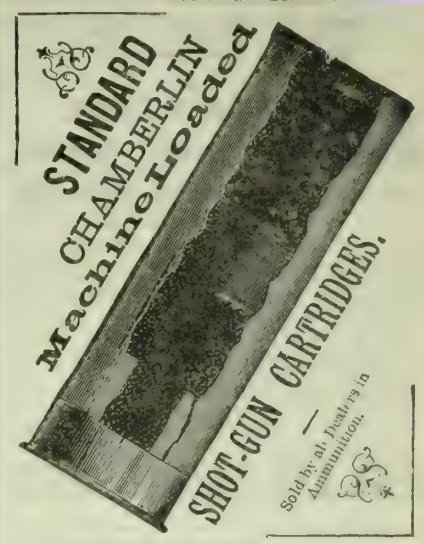
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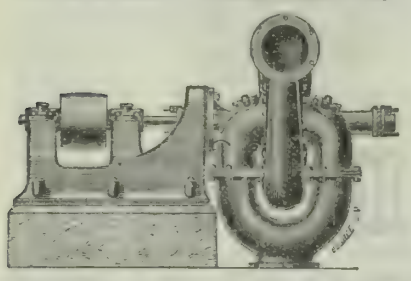
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Soluble Phosphoric Acid	12.90 per cent
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Ammonia	1.87 "
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The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia**, therefore, total of Nitrogen calculated as **Ammonia**, 2.72 per cent.

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University of California, College of Agriculture.

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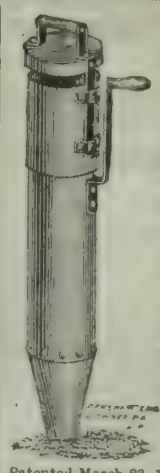
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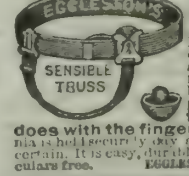
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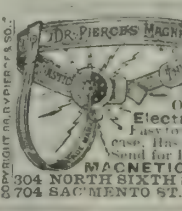
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Has a Pad different from all others, is continuous wear. Self-adjusting ball in center, yielding itself to all positions of the body while the ball never presses back the intestines just as a person does with the finger. Weak right pressure the hernia is held securely day and night, and a radical cure certain. It is easy, durable and cheap. Send for pamphlet and circulars free.

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SCALE BUG, HARVEST FLIES, TREE HOPPERS, PLANT LICE, Etc.

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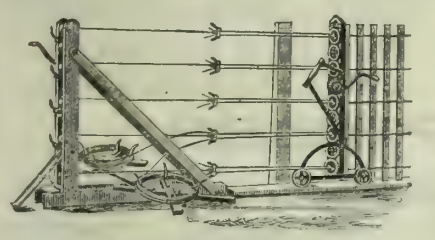
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Copy of Letter Received from the University of California, College of Agriculture, Berkeley, dated December 4, 1886.

J. N. KNOWLES, Esq., Manager Arctic Oil Works, San Francisco—DEAR SIR: We have lately tested the Insecticide preparation of Whale-Oil Soap sent by you to us, and have found it to be very effectual against the Scale infesting Orange and Bay Trees here; also against the Thrips. From our previous experience with a similar composition, I think it will be found fully effectual against any small Insect Pests not specially protected like some of the armored Scales, and against which any Wash short of strong lye cannot be used. Respectfully,

E. W. HILGARD, Professor of State University.

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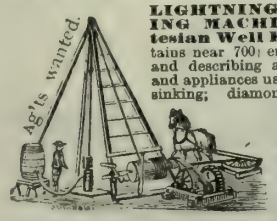
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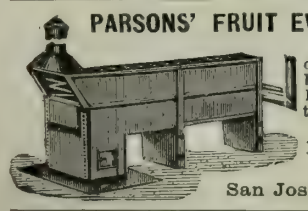
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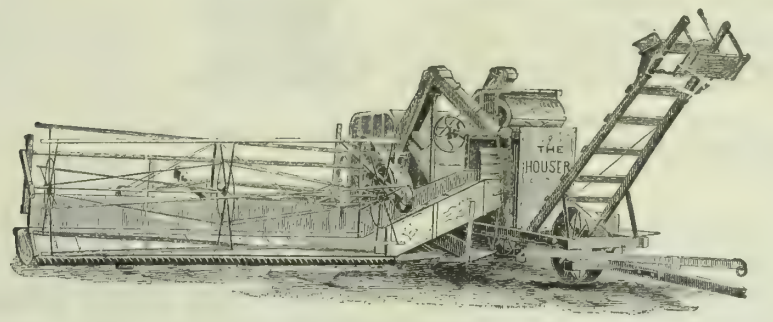
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THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.

THE BEST KNOWN AND MOST POPULAR.

800 in Field Use and No Failures.

NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

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HAY PRESSES.



THE HURRICANE,

A Mounted Double-Ender Baling Machine, capable of baling 40 tons per day.

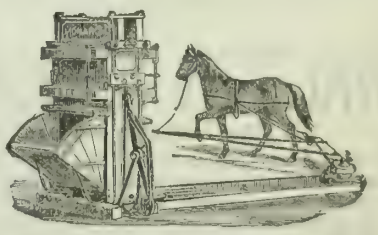
ITS RECORD

For the first year of its existence is as follows: **Four tons in one hour, nineteen and three-quarters tons in a half day, thirty-seven and one-quarter tons in one day, and 1800 bales in six successive days.**

Two sizes: Compressed bales and common bales. **Improved this year so that it is nearly one-quarter faster than before, and the back-and forth movement of the horse lever is made to bring the hay across the stack and hoist the bales into a pile.**

Has three or four times the capacity of Eastern-made presses, with the same number of men and horses.

Price, at factory, San Leandro, Cal., **$1000.**



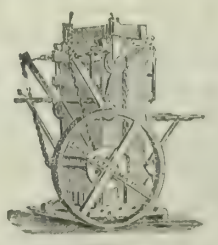
THE JUNIOR MONARCH

Does its own Tramping. Feeds at Side, near the Bottom.

HAS THE FOLLOWING RECORD:

33 tons in one day; 105 tons in 3½ days; 20 tons, and over, daily average for the season; 2350 tons with one press in one season; 23 sold in one valley last season.

Price, at factory, San Leandro, Cal., **$500.**



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Genuine Price Petaluma,

With Latest Improvements.

Made under the supervision of the inventor, JACOB PRICE. Too well known to need further description. First-class material and workmanship Capacity, from 10 to 18 tons per day. Hay must be tramped in press.

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☞Send for large illustrated Catalogue of above presses. **Office and Factory, SAN LEANDRO, CAL.** Address

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AN ELEGANT SIX-BLADED KNIFE,

Pearl handle, 3½ inches long, sent to any address by mail, prepaid, on receipt of 60 cents.

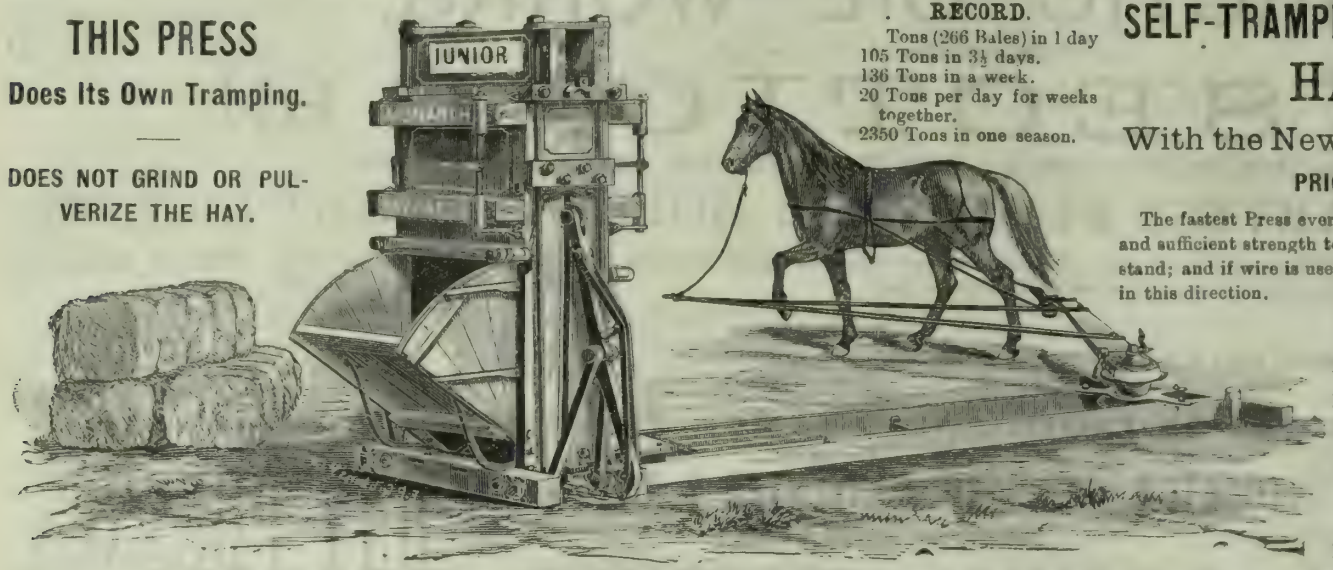
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THIS PRESS

Does Its Own Tramping.

DOES NOT GRIND OR PULVERIZE THE HAY.



RECORD.

Tons (266 Bales) in 1 day
105 Tons in 3½ days.
136 Tons in a week.
20 Tons per day for weeks together.
2350 Tons in one season.

SELF-TRAMPING JUNIOR MONARCH HAY PRESS,

With the New Automatic Horse Power

PRICE, COMPLETE, $500.

The fastest Press ever put in a hay field. It has unlimited power and sufficient strength to make the bales as heavy as a rope will stand; and if wire is used, it will take less per ton; hence a saving in this direction.

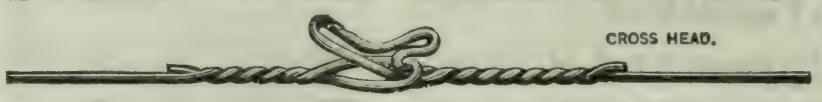
A remarkable improvement called the IMPROVED AUTOMATIC HORSE POWER has been applied to the Junior Monarch Hay Press, which increased its speed FIVE TONS PER DAY and saved the labor of one man.

THE MONARCH HAY PRESS, which puts 10 tons in a box car, is still sold at $600.

JUNIOR MONARCH HAY PRESS.

(The above cut does not show recent improvements.)

STEEL WIRE BALING TIES.



Cheaper than Wire—Better than Rope.

Experience will teach that the same number of tons of hay can be more safely secured, and at less cost, by our prepared ties than by the use of coil wire. In the use of coil wire, one or two sizes larger is required, and then the wire is not reliable at the fastenings; add to this the bother and loss of time in its use, the loss of wire, cost of re pressing, and loss of hay in transit and in the market by reason of broken bales, and we are certain coil wire cannot be economically used.

Why waste time making ties in the field when you can buy them ready made almost as cheap as the wire in the coil? We have on hand a large quantity of steel bale ties, ready for immediate delivery, which we will sell at the following prices:

No. 14 Wire, 6½ feet long, for Monarch Press, per hundred	$ 88
No. 14 Wire, 8 feet long, for Junior Monarch Press, per hundred	1 06
No. 14 Wire, 8 feet 3 inches long, for Dederick or Economy Press, per hundred	1 09
No. 14 Wire, 8 feet 6 inches long, for Dederick 17x12, per hundred	1 12
No. 14 Wire, 8 feet 9 inches long, for Dederick or Economy Press, per hundred	1 15
No. 14 Wire, 9 feet long, for Petaluma Press, per hundred	1 17
No. 14 Wire, 9 feet 3 inches long, for Dederick or Economy Press, per hundred	1 20
No. 14 Wire, 9 feet 6 inches long, for Dederick or Economy Press, per hundred	1 23

This Price Will Hold Good for 15 Days.

The PETALUMA and CLIMAX PRESSES, Greatly Improved for 1887.



THE CELEBRATED

Petaluma Baling Press.

Weight, 2600 lbs. Price $350 delivered at the factory. Size of bale, 22x22x48 inches. Capacity 26 tons per day. Weight of bale from 225 to 400 lbs. This remarkable machine still stands at the head of all vertical baling presses, and probably bales three-quarters of all the hay west of the Rocky Mountains.

CLIMAX HAY PRESS.



$300 00

Weight 2200 lbs. A crew of three men—four can be used to advantage.

Five ropes are used on the bales. Capacity 10 to 15 tons per day. The best press for the money in the world. Address

We are the only manufacturers of Baling Presses in San Francisco. Baling Wire, Baling Ties and Rope at the very lowest prices. ADDRESS

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—GENERAL AGENTS FOR—

WALTER A. WOOD INCLOSED-GEAR MOWER

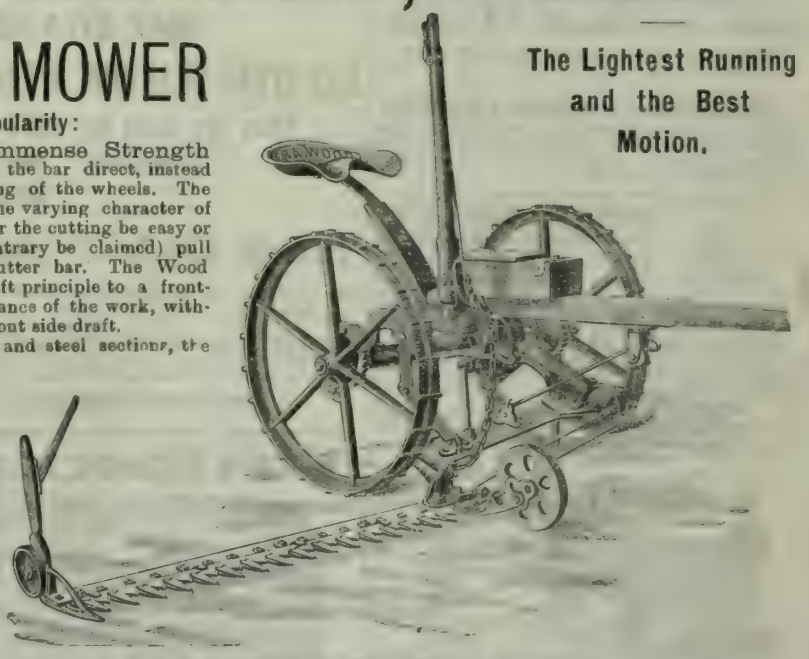
The Following Very Important Special Characteristics Contribute to Its Popularity:

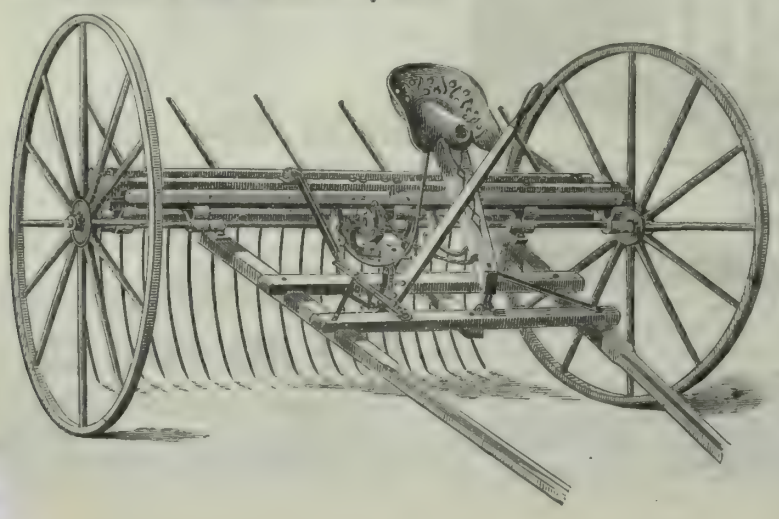
Steel and Malleable Iron used wherever they can be employed with advantage. Its Immense Strength united with Lightness. Its Simplicity. With its unequaled underdraft device the horses pull on the bar direct, instead of wholly or partly pushing it ahead of the wheels, as in other front-cut mowers, and there is no slipping of the wheels. The draft action used on the Wood is the only one ever devised that accommodates itself with exactness to the varying character of grass and ground. All other methods for easing up on the cutter-bar act with a dead uniformity whether the cutting be easy or difficult, and thus interfere more or less with the proper "float" of the bar. All of them (though the contrary be claimed) pull down on pole and horses' necks, WHEN CUTTING, just in proportion to the amount eased up on the cutter bar. The Wood draft arrangement is the only one that pulls exclusively from the cutters. It applies the only correct draft principle to a front-cut floating-bar mower. It eases the bar automatically in proportion to the pull by the team and resistance of the work, without causing neck-weight, permitting the bar to lightly follow the surface of the ground at all times, without side draft.

Cutting apparatus of best construction—malleable guards bolted to the bar; steel guard plates and steel sections, the sections running on steel at both heel and point.

Wider thread and higher wheels than other mowers. The machine clears higher obstructions between the wheels than other mowers, owing to the high axle and hinged frame. All bearings carried in one perfectly rigid frame, keeping them perfectly lined for any length of time. Brass Boxing, Protected Pitman, Incased Gearing, Lock Nuts. Weight of machine and driver properly distributed on both wheels and balanced on the axle. No side-draft. No neck-weight. Perfected Shifter, without wear, and starting the knife instantaneously when the wheels move. Lightest draft and most comfortable to ride of any mower in the world. Its general advantages are the union of strength, lightness and simplicity, the proper distribution of weight, ease and steadiness of running, absolute reliability as a cutter of any and all grasses. Combining so many good qualities, it is world-renowned, and commands the first choice of the farmers everywhere.

The Lightest Running and the Best Motion.





THE THOMAS RAKE! THE ROYAL SELF-DUMP RAKE! COATES' LOCK LEVER RAKE!

Well known on the Coast and each unequaled in its class. THE THOMAS, the most popular in the market, is strong and durable. Is comfortable for the driver and easy to operate. Is adapted for all kinds of work and ground. In dumping, its over-hanging cleaner brings the green hay on top. Its teeth will not break with ordinary usage, and it is the best and most desirable rake for the money in the market.

THE ROYAL SELF-DUMP RAKE can be operated by a boy or girl. It is perfect in action, does not get out of repair, and will give better satisfaction than any other self-dump rake made.

THE COATES LOCK LEVER RAKE, the simplest made, is never out of repair, and is easy to handle. It has a spring seat, oil tempered teeth, and with it you can save enough grain from twenty-five acres of stubble to pay for the rake.

A Complete Assortment of Buggies, Phaetons, Carts, Buckboards, Harness, Etc.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 19.] SAN FRANCISCO, SATURDAY, MAY 7, 1887. $3 a Year, in Advance; Single Copies, 10 Cts.

A Debris Question in Colorado.

The Colorado farmers upon streams, the higher waters of which are used in mining operations, have a grievance quite different from that which our valley farmers are contending against, and yet in effect it is much the same—that is, the lands are rendered unproductive. In Colorado the killing of the land is accomplished in a very different way, being chemical instead of mechanical as in this State. At a recent meeting in Denver, which we find reported in the *Farmer*, it was stated that land close to Denver, which in a few years should be worth $100 an acre, cannot be sold. Sediment is beginning to run in small quantities in other creeks; in 25 years it will be so big that fish cannot live in streams. The farmers want to know what is the use of spending money on fish hatcheries if the miners are allowed to pollute the water so that fish cannot live in the streams.

It seems that the sediment which the miners throw in the streams contains arsenic, antimony, etc., which poisons the water and soil which it impregnates. It caused the potato disease in 1873 when they would not grow. This fills the whole country with poison and smelters are carrying it in efflorescence and vapor, filling the air. Clear creek farmers drink this poison water in the summer and become sick.

It is very clear that water laden with these poisons cannot be used for irrigation nor for drinking. Plants are very sensitive to arsenic and a very small percentage will kill them outright. The Colorado farmers are aware of the progress made in this State in preventing pollution of streams and destruction of valley lands. Our experience will be of much value to them, and the decision of our courts on the broad principle that one industry cannot be pursued if it injures the property of other parties, will aid them in any corrective legislation they may seek. Though pioneer work in this direction has been well done by California farmers, the Colorado people need not think they will have an easy task to protect themselves. It has required years of earnest and self-denying struggle on the part of our agricultural people, and if they had not been made of stern stuff they would have been baffled and beaten. Their victory is a signal one, but even the fruits of it are only secured by continued effort and ceaseless vigilance. Let the Colorado farmers muster their strength and enlist the support of all possible persons outside of their own ranks. Let them prepare for a long contest. They may be sure of the sympathy and active interest of those who have been carrying on the struggle in California.

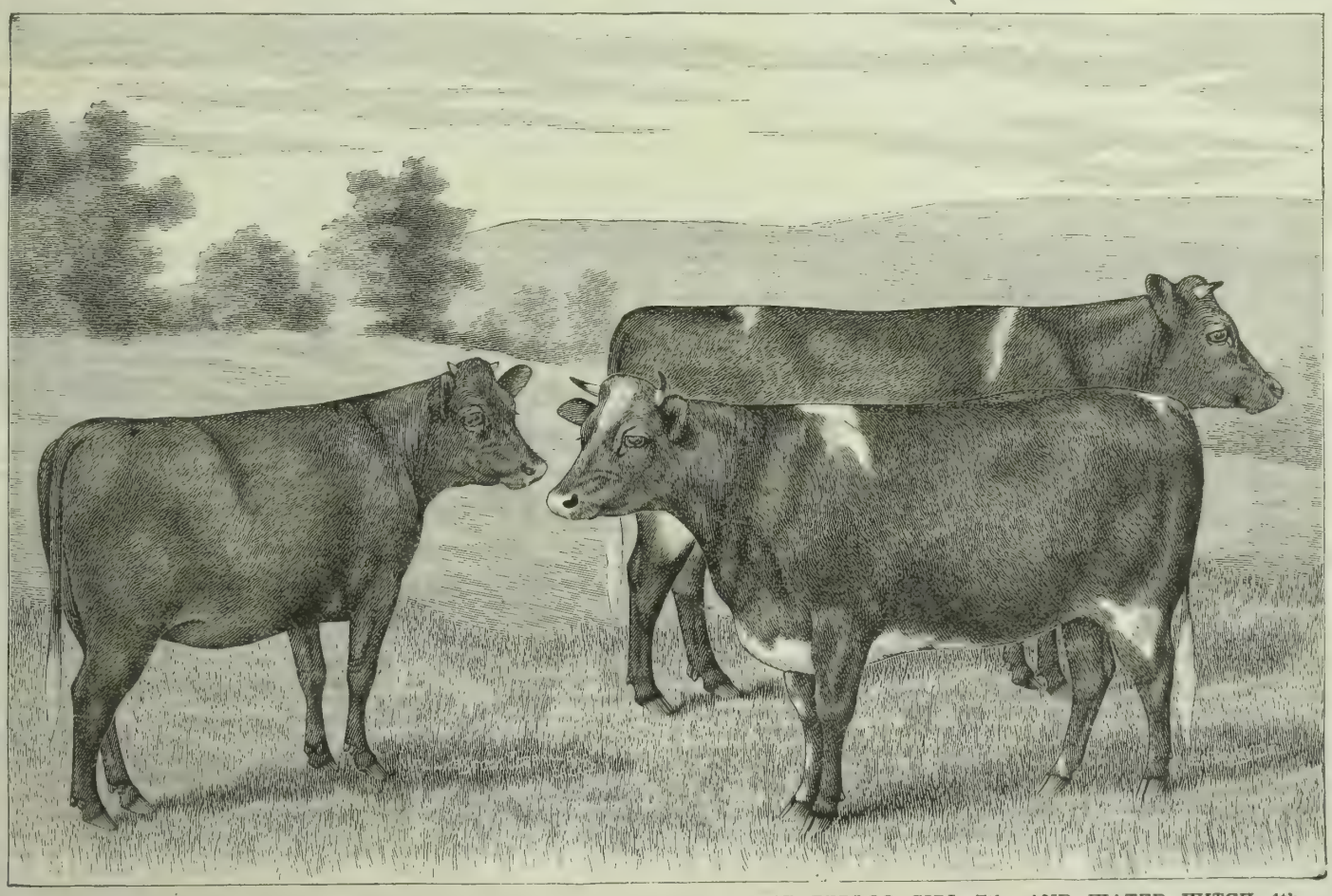
A Friend of California.—M. Ch. Joly, vice-president of the National Horticultural Society of France, is a good friend of California. In his pamphlet publications and in his horticultural contributions to an excellent Parisian publication, *La Maison de Compagne*, he makes frequent allusion to our fruit industry, and to the general resources and advancement of the State. In a recent article he says: "In order to give an idea of the resources of the United States, let us cast a glance upon the horticultural production of a State only 30 years old, and which is at the same time the Spain, the France and the Italy of America." Then follows a sketch of our fruit and wine product. We are wont to arrogate to ourselves possession of the adaptations and advantages of the most favored parts of Europe, but it is the more gratifying to see them thus frankly conceded by our friends abroad. We hope M. Joly may soon make us a visit. He might then concede that California is also the Switzerland, the Holland, the Germany—in fact, the Europe of America.

Haymaking began last week near Petaluma.

More Flower Festivals.—A handsome complimentary ticket, with a moss rose pictured in one corner, reminds us that the Floral Fair in Horticultural hall, San Jose, for which elaborate preparations have been going on, begins the day this paper goes to press. Then, too, the young ladies of the Alameda Flower Mission, elated by their recent victory at Oakland, are to hold a flower festival at home, in Tucker's block, near the postoffice, this Friday and Saturday, while Santa Cruz is astir in anticipation of her own Rose Fair, which comes off next week, the exercises including a grand choral praise service and reception of delegates to the World's Conference of Young Men's Christian Associations.

Proposed Summer Fruit Fair.—Captain Weinstock, of Sacramento, makes a good suggestion via the *Bee*, that a fruit fair or festival be made in Sacramento in August next. He advocates that the fruit be first exhibited in Sacramento, and that it then be replenished and shipped to Chicago for exhibit there. He holds that, if two exhibits are found not to be practicable, it would be preferable to have the one in Chicago rather than in Sacramento. No doubt much good could be done by showing at the East fine collections of the fruits we desire to ship in large quantities during the summer and fall months.

Haying has commenced in Tulare county. The first crop of alfalfa is being cut in places where it has been irrigated or is growing in moist land.



PURE BRED SHORTHORN HEIFERS—WATERLOO OF BROWNDALE, WATERLOO GIRL 7th, AND WATER WITCH 4th.

A Handsome Group.

For the once, we rule the lordly sires out of our animal portraiture and give our first page to three noble ladies of the Shorthorn persuasion. Beginning upon the left, the youngest of the group is Waterloo, of Browndale; facing her is Waterloo Girl 7th, and the third, in the background, is Water Witch 4th. The group belongs to the Browndale herd of H. F. Brown, of Minneapolis, Minn. Mr. Brown made a flying visit to California this spring, and assured us that the artist had not done more than justice to these beauties of his herd. The three are classed as Waterloo heifers, tracing closely to Bates' famous Waterloo tribe. The Waterloos are regarded as one of the most desirable Bates families, being rich in the blood of highly-prized sires, and as a family are distinguished for superior form and character. Mr. Brown's herd is very high for pedigrees and for useful qualities, as he maintains the dairy value of the Bates Shorthorns and refrains from reducing their breeding vigor by pampering for show effects. Mr. Brown disposes of his increase at annual sales, this year's sale being set for the 24th of this month at Minneapolis. Live-stock matters are rather brisk this spring, judging from the number of sales which are noted in our advertising columns. Next week we expect to give something about Jersey values, as shown by recent sales at the East.

Wheat in Sight in Great Britain.—One of the important factors in the greatly improved wheat outlook is the reduced stocks of wheat in sight at various points. Take for example the report which we just received by mail of the stocks on hand at the various British centers on April 1, 1887. The totals are 1,367,565 quarters against 1,585,738 on April 1, 1886, or 218,173 quarters less this year. This amount is equivalent to 1,7453,84 bushels.

The artesian well on the Rideout ranch, a few miles south of Willows, is a complete success. It has reached a depth of 871 feet, and the water flows 12 feet above the ground and at a rate of five gallons per minute. People are considerably excited over the new discovery.

HORTICULTURE.

Will There be Too Much Fruit?

Meeting of the State Horticultural Society.

The regular meeting of the State Horticultural Society was held in Irving hall parlor, San Francisco, on Friday, April 29th, President Hilgard in the chair. There was a very large attendance and the meeting was spirited throughout. B. M. Lelong, the newly elected secretary of the State Board of Horticulture, was proposed for membership by Mr. Shinn.

Mr. Lelong was called upon and gave an account of the newly introduced cold-storage process as used in Southern California. He spoke very highly of its results. (We omit this account because we expect the subject will be fully discussed by our editorial representative at the Riverside Fair.)

Dr. Kimball, of Haywards, who made a careful personal examination of the Riverside establishment, spoke very emphatically of its prospective value to the fruit interest of this part of the State, claiming that it would prove of even more importance to growers of deciduous than of citrus fruits.

Mr. Hatch, Mr. Buck and others spoke of the promise of value in the improved Allegretti process, claiming that it would do all the Riverside process would do and its benefits could be had very cheaply. The general sentiment was that all processes should be tested, and an effort made to secure the advantage of cold storage at as low a figure as possible, because everything indicated that California fruit must be sold as cheap as it can be and still leave a fair profit to the grower, for very large sales will depend upon low prices.

The discussion of the subject of the day was then introduced by the following essay by Judge W. C. Blackwood, of Haywards:

Overproduction of Fruit.

We are here to-day to consider the fruit industry of the State, and whether, under the stimulus of high prices and the superior fitness of the soil and climate of California, there is any danger of overproduction.

Overproduction may be effected in two ways. First, when the production is so great that there is not sufficient labor force at command to expeditiously and economically handle the crop; second, when there may be too much land devoted to orchard-growing—that is, when the orchards are brought to full bearing, they will produce more fruit than is required to supply the demands of commerce, with profit to the orchardist.

I will devote a few remarks to the first cause of overproduction and see if there is not, even in the present season, danger of overproduction in some varieties of fruit—for instance, apricots. The season for harvesting this fruit is about 20 days. The crop must all be secured in that time or it is lost. Now it is estimated by experts that in Santa Clara county alone the crop will amount to 15,000 tons, and in Alameda county 3500 tons. I have seen no estimates of the incoming crop of Solano county, but we know there are many large orchards in that county and the crop is reported to be full. Then there are the Sacramento valley and the southern counties of the State, where, in the last few years, large apricot orchards have been planted and are now in full bearing, and presumably promise full crops the present year.

Now, with the present labor force in the State, can this enormous incoming crop be expeditiously and economically handled?

Take the crop of Santa Clara and Alameda, 18,500 tons—to pick this crop from the trees will require 37,000 days' labor. Allowing 20 days to harvest the crop, it will take a force of 1850 men per day to pick the crop from the trees, to say nothing of the required additional force to move the crop from the orchards to the shipping points. I have put a half ton of apricots as what one man will pick in a day. This, take the season through, is about what a lot of men will average, as I have found by years of experience.

Now, if this crop of fruit is to be dried, it will occupy five men a day, of 11 hours, to open a ton and place them on trays in proper order, beside some additional force to sulphurize the fruit and place it in position for drying. This will require an additional 4625 hands for the 20 days, beside the extras, or a total force to pick and dry the crop of these two counties alone of 6475 men, beside the extra help required in loading, unloading, hauling and sulphuring and handling trays, etc.

Now, is that large labor force at command in those two counties? I, for one, think it is not, neither do I think it can be imported at the time it will be required, because other fruit districts will at that time have no labor force to spare. They will probably find themselves as hard pressed for lack of sufficient labor force as the orchardists of the counties we are considering.

But can or will the canneries give the orchardists the relief they will need? In San Francisco, San Jose and Oakland there are some ten canneries. Allow them an average pack of 500 tons each, which I think will be a full average, and the orchardists of those two counties, if the canners bought apricots from no other districts (which can hardly be expected) will only be relieved by the canneries of 5000 tons, leaving in their hands 13,500 tons to be dried, if utilized at all. To do this they must have an operating force of 3375 men besides their picking force for 20 days. Now I don't know where this operating force is to be obtained; so far as Alameda county is concerned, I am confident it is not in the county.

As for making profitable shipments of apricots overland to Eastern fruit centers, I think past experience of the orchardists of Santa Clara and Alameda counties has satisfied them there is not much save disappointment in it. If, then, the present year's crop of apricots cannot be economically handled, although the markets of the world are fair, have we not an overproduction of this very desirable fruit? That is the way it seems to me.

Peaches.

Take again peaches: the newsgatherers report an immense crop. The two Bucks, of Vacaville, are reported as saying their orchards will ripen 800 tons. If other orchards throughout the State promise equally as well, there must necessarily be an immense surplus—much more than can be canned, dried or shipped with profit to Eastern markets. So it would seem of these perishable fruits we have been considering, California is already on the eve of overproduction, yet she has room and climate and soil to produce of these fruits ten times what she is now producing. Thus overproduction may proceed from an inability to economically handle the quantity produced.

Overproduction From Excessive Area.

Overproduction, I have said, might arise, secondly, from devoting more land to orchard-growing than, when the orchard comes to full bearing, is required to supply the demands of commerce with profit to the orchardist.

Take prunes, for instance, for consideration. The importation of prunes into the United States last year was about 60,000,000 pounds. California produced last year a very small amount, as compared to the importations. Yet the production was great enough to test their value as compared with the imported prune in the Eastern markets, and on trial they were found to be superior to the imported prune, and passed into consumption at prices much in advance of what could be obtained for the imported article. This is a circumstance very gratifying to the California prune-grower. And with continued care and the exercise of a proper degree of intelligence in the curing process, I have no doubt that the California prune will continue to maintain its character of superiority over the imported article and in time drive it out of the markets of the United States, and will become a strong competitor with the European article in the markets of the world. But is there danger of overproduction of the prune? Nurserymen will tell you that every spring their stock of young prune trees is exhausted. This shows the area of prune orchard is being constantly extended. In a few years when these young prune trees arrive at full bearing age the production of prunes will be immense, amounting to millions of pounds. At 50 pounds of cured prunes to the tree (a low estimate) and 100 prune trees to the acre, 12,000 acres of prune orchard will produce 60,000,000 pounds of dried prunes—a quantity equal to the present importation of prunes into the United States. I do not know how many prune trees are now set in orchard or how many acres in the State are now devoted to prune orchards, but this I do know: There is unoccupied orchard land enough in Alameda county, and more than enough in Santa Clara county, to say nothing of what is lying unoccupied in all other parts of the State, to grow more prunes than the markets of the world will consent to receive for consumption. And I shall not be surprised if the prune culture is so extensive that in a few years all will acknowledge an overproduction of that kind of fruit.

Other Products.

The same may, I think, be predicted of the raisin and orange culture. I have not statistics at hand showing the quantity of raisins imported into the United States, but the raisin industry of California is rapidly on the increase, while the land suitable for growing the raisin grape is almost unlimited in quantity. Skill and intelligence, to make a desirable raisin, have been put forth, until now the California raisin ranks among the best, and is competing with the foreign article in the markets of the United States. But in my opinion, the raisin-maker has a big job before him. The foreign prune and raisin maker and merchant will not yield the trade in those fruits, which they have possessed and do still possess in the United States, without a desperate struggle. To succeed, we here in California must make as good, or even a better, article than the foreign prune and raisin, and we will have to sell as low, or a little lower, than the importer of the foreign articles can do. In the end I think the prune and raisin manufacturers of California will not only hold their own, but will eventually drive the foreign articles out of the markets of the United States. Then will commence a competition among the California prune and raisin growers themselves; then will come the danger of overproduction from too great an extension of prune orchards and raisin vineyards.

So of the orange industry. It is now proved beyond question that prime oranges may be grown in many sections of the State, which, until recently, were supposed to be unsuited to their culture; and, notwithstanding the immense orchards now in bearing in the southern portion of the State, tens of thousands of young trees are being constantly set, which must increase their production beyond any present power of computation. Some orange-growers hope, and probably think, that by resorting to the modern system of cold storage, now so much talked about in some places, they can hold their crop till such time as the market is comparatively bare and will relieve them of their crops at remunerative prices. Possibly they may be right, and possibly the staff they propose to lean upon may prove a broken reed.

Disposition of Californians.

When we recall to mind the sanguine temperament of the average Californian, the energy of his movements in carrying out his desire to establish and build up a remunerative business, and in a few years rest in the enjoyment of what in most countries would be regarded as a princely income, it would be wonderful if he, with thousands like him, having turned his attention to orcharding, and the supposed immense profits incident to the business, should not overshoot the mark, and by his and their united labor produce more fruit than they can economically handle or profitably sell on the market. Here is our friend, Mr. Hatch; he is a very hopeful, sanguine orchardist and quite a successful one. He has, I am told, possessed himself of about all the lands next to him in Suisun; but his ambition is still vaulting upward, and, like the great Alexander, he sighs for other worlds to conquer. He has invaded Alameda county to continue his conquering career.

> No pent-up Suisun shall confine our powers,
> But great Alameda shall also be ours.

But, Mr. President, there is no human industry which is not at times subject to depression from overproduction. The wheat industry, the cattle industry, the sheep and wool industry, and the pork industry, have all at times suffered from overproduction. So of mining and manufactures. Yet all these industries survive and most of them now flourish. So it will be of the fruit interest of California. Overproduction of some favorite kinds of fruit may prevail for a short time, but it is bound to correct itself. Depression may force some to the wall and seriously injure others, but depression will never kill the fruit industry in California. When we who are here to-day shall have passed away, the fruit industry of California will still flourish; her valleys will still be covered with orchards, yielding the peach and apricot, the plum and the prune, the apple and the pear; her hills will still be covered with the vine, the olive and the fig, and her people will be reposing in ease and luxury beneath the shades of their orchards, their vines and their fig trees, with none to molest them or make them afraid, but will be intelligent, virtuous and happy.

Reasons Why There Will Not be Overproduction.

In opening the negative of the subject under debate, that there is not likely to be overproduction of fruit in this State, Mr. A. T. Hatch, of Suisun, submitted the following points:

Overproduction of fruit in California is possible, but not probable. Of course, I refer to *good* fruit; of poor and indifferent quality there is too much where there is any. The reasons I think there will never be too much good fruit are as follows:

Very few when planting fruit trees are sufficiently particular in the selection of the place having the proper soil and climate for the kind to be planted. Without those two essentials, any one might as well expect to make city officials without the aid of gin-mills and bosses as to produce good fruit.

Again, very few, after having made a judicious selection of soil and climate, take sufficient care in preparing the land and the cultivation of it after planting the trees, or they prune improperly or fail to prune at all, or do not thin the fruit when too thickly set on the trees, or neglect to curb the incoming and spread of destructive insects and fungoid growths.

Even when all of the evils mentioned have been avoided, and the fruit is generally of a good quality, yet many will put it in boxes or baskets that are not appropriate and without properly assorting the fruit or properly placing in the boxes, some being too small or overripe or too green; or they will handle it so roughly that it will be bruised, thereby damaging its keeping quality.

Again, if the fruit is of unexceptional quality and properly picked and packed, it still remains to get it to market in good condition. It must not be jolted over rough roads on wagons without springs. It must be placed in cars in such a manner as to keep it in position, and at the same time so as to allow free passage for air between all packages.

Again, rapid transit and low transportation rates are exceedingly essential—in fact, are more so than all other items put together, as it will be useless for us to put up even very good fruit in large quantities, with an expectation of getting paying returns on a basis of any except very low freight rates, and only reasonable profits to those handling our goods in the different markets. When these ends are accomplished and only good fruits are put by us on the market in any form, popularized by low prices to those consuming them, overproduction will be a word with no meaning, when used in reference to fruit-growing in California.

Some will say that we can never accomplish these ends. Those who say so are not of the class who will work to accomplish them. We must work together for such accomplishment; then it will be done.

It is no hard thing to hurt the markets with poor fruit, it will damage the sale of good fruit, yet the better qualities will bring paying prices when the poor trash is being sold at a loss, and the man who will put his goods on the market in the best shape will always obtain remunerative prices. If we are discussing the overproduction of poor fruit, I have nothing to say. We are there now and always have been and I fear always will be. I claim that it costs no more to produce good fruit than it does to raise an indifferent quality, providing the right thing is put in the right place and treated judiciously. Here in California there are proper places for all except tropical fruits. I do expect that there are those in this room who will live to see the time when there will be twice as many fruit trees planted in California as there are to-day, and yielding profits to the growers of all good fruits properly marketed, even though it may require 10 daily trains of 20 cars each to convey them to the consumers, and much of this, if not most of it, depends upon the facilities afforded us by transportation companies. We will do our part, and we will still hope that they will appreciate the fact that the general prosperity of California depends, at this time, more on the success of the fruit industry than on all other interests, and will foster it to the extent of even temporary losses, knowing that they are sowing seeds from which they will reap a hundred fold.

An important consideration at present is that every fruit-grower, to prevent overproduction, should make himself as self-reliant as possible, by preparing himself for drying, canning and shipping his goods, so that when profitable prices are not obtainable otherwise, then he can save and dispose of his fruit in various ways.

In reply to Judge Blackwood's points on overproduction because of deficient labor supply, Mr. Hatch thought there might be temporary trouble from this cause with some fruits, but there is never any protracted lack of labor. The labor supply adjusts itself to the demand.

Views of Other Growers.

After the opening by Messrs. Blackwood and Hatch, the discussion became general and the tone of it was in the main favorable and encouraging to those in the fruit interest. We shall arrange the points made under the headings of the different fruits, instead of following the sequence of time in the discussion.

The Apricot.

L. W. Buck, of Vacaville, thought the Eastern markets might not be trusted to take large quantities of apricots in a fresh state. The apricot does not commend itself to eating out of hand as the peach does.

Prof. Hilgard said the Eastern people, as a rule, did not know the apricot; then when shipped East the fruit is picked too green to have much flavor. If cold-storage processes enable us to send on well-ripened apricots, he thought large quantities of them would be eaten.

F. C. De Long, of Marin county, said even canned apricots labored under some difficulty, because the people did not know the fruit as they do the peach. To introduce canned apricots the canner must have the fruit at a low price, and at a uniform price from year to year, because it produces a bad effect to sell canned goods low one year and high the next. It checks consumption. As for Judge Blackwood's statistics on the canning of apricots, Mr. De Long thought there would be about 18 canneries at work instead of 10, and he thought also that the estimate of the crop in Santa Clara and Alameda counties was much too large. He thought there would never be overproduction of fruit at reasonable prices, but if the grower expects to get $1000 per acre from his orchard, there will soon be very much—too much fruit. He counted that 100 trees to the acre would easily yield 100 pounds to the tree; at 1½ cents per pound, the gross return would be $150 per acre, and if $50 is allowed the grower for expenses, he would net $100 per acre, which is many times better than he can do with ordinary field crops.

Gilbert Tompkins, of San Leandro, spoke of the taste for the apricot. It had to be acquired, it is true, but, like other acquired tastes, it becomes very strong.

James Shinn, of Niles, alluded to the profit in well-dried apricots, the large product of them in Ventura and elsewhere, and thought this use of the fruit would go far to prevent overproduction. Mr. De Long again, in answer to a question, stated that canned apricots sold well in Australia, also in London and Liverpool, and had been introduced in Paris. If they can be sold at wholesale here at $1.30 per dozen, jobbed in New York at $2 per dozen and retailed at 20 cents per can, he thought there would be practically no limit to the amount which would be consumed when the people understood the fruit better.

Mr. Hatch spoke of his belief in low prices for fruit. He extended his orchard so that he could afford to sell at a lower price, and this he considered one of the secrets of the future success of the industry. He thought a net profit of $50 per acre would not be a bad figure for large growers.

Dr. Kimball, of Haywards, stated that his views on overproduction of apricots had changed materially since he prepared an essay for the Fruit-Growers' Convention three years ago. At that time he thought enough trees had been planted to yield 200,000 tons of fruit in ten years. He had lately observed the dislike of

the tree to irrigation and the fact that many trees were being uprooted in irrigated districts because they were unsatisfactory. This put a very different face upon the outlook. He thought the area of the State where the apricot would be fully satisfactory might be comparatively small, and consequently there is no such danger of overproduction as he once feared. He believed now, too, that the world would take more apricots than he thought three years ago. He thought the cold-storage processes, which enable us to market fruit in a thoroughly ripe state, would increase the consumption almost immeasurably. The population of the United States is increasing rapidly. Canada and British America are a large field. Nowhere, except in a part of California, can the apricot be successfully grown. He thought the outlook for this fruit very promising.

Prof. Hilgard said it gratified him to see that the speakers were approving the position he had taken long ago that the production of fruits which would not succeed elsewhere gave California growers a monopoly and would make their rewards satisfactory. The apricot is such a fruit, so is the olive, so are table grapes of the *vinifera* family, so of raisins and almonds. The growth of fruit in the Western States is becoming more and more hazardous because of the injuries by severe winters, and therefore the opportunity for California fruit is extending.

The Peach.

A number of speakers alluded to the peach, and the general opinion was that the outlook for the California peach is unclouded. Mr. Buck said there might perhaps be danger of overproduction of apricots from some causes, but he could see none in the case of the peach. He thought peaches could be sent East in any quantity, if growers were content with 2 cents per lb. net for their fruit; there is practically no competition at the East with the California peach; every one, too, knows a peach and will buy it if the price is within reach.

Mr. De Long approved this position. The canned peach does not have to be pushed as the canned apricot does. People know it and regard it as the standard of excellence in canned fruit. But it is a mistake to make canners pay high prices. If canners could be sure of having a steady supply of peaches at 2 cents per lb., their sales would be so great that all the available and suitable area of California could be planted to peaches. Eastern canners get their peaches at 1¾ to 2¼ cents per lb., and the fruit they put up bears no comparison to California peaches.

Dr. Kimball also thought there was no danger of overproduction of good peaches.

Mr. Buck remarked that to prevent overproduction there must be good fruit well handled, as stated by some other speakers. The idea of being ready to dry, if the price for green fruit is not satisfactory, is very important. He had the promise of a large peach crop, but did not expect to sell for less than two cents per pound. He would largely increase the capacity of his drier, so as to be able to handle the fruit himself.

The Prune.

Several speakers remarked about the extent of prune planting. The general sentiment seemed to be that while the country imports 60,000,000 pounds of prunes there is little danger of overproduction. Of course there will be a contest with foreign producers, and whichever can produce the best prunes at the lowest price will succeed in getting the trade. There seems to be no doubt about the superiority of California fruit, and as to price, some speakers claimed that if cured prunes could be sold so as to yield one cent per pound, net, for the green fruit, the grower would do reasonably well. Mr. Hatch proposed four grades, which he said could be sold at three, four, five and six cents per pound. As prunes dry about three to one, or two and one-half to one in some cases, and if the average return should be, say four cents per pound, there would still be some profit in it.

Dr. Kimball spoke of his experience with prunes, the Petite prune curing 3 pounds to 1, the German requiring rather more to make 1 pound dried, and the Bulgarian yielding at the rate of 2½ to 1. He told of nonplussing a foreign prune expert by showing a Columbia plum dried like a prune, flattened out French fashion. He called it the "great American prune" and the foreigner had to succumb before it. Dr. Kimball thought there might be temporarily too many prunes grown here, but in the contest with the foreign prune the California fruit would win in the end and still yield some money to the growers.

Several other speakers took part in the discussion. The general opinion of the outlook was favorable to the profit even in the fullest extension of the fruit in this State, providing growers would produce the best fruit and be content with moderate profits as a rule.

Respect to the Memory of Col. Webb.

The secretary offered the following resolutions, which were adopted:

WHEREAS, It has pleased God to summon from among us Col. A. H. Webb, a member of the State Horticultural Society, and for several years secretary of the State Board of Horticulture; therefore

Resolved, That we sincerely regret his death, as it removes from our association a valued member, whom we esteemed for his earnestness in the advancement of the horticultural interest of the State, and who was endeared to us personally by his kindliness of heart and manner. His life among us led us to admire and appreciate his many good qualities, and we desire to place upon record a heartfelt tribute of respect to his memory.

Resolved, That this action of the society be inscribed on our minutes, and a copy sent to the family of the deceased member.

Petition to Railway Managers.

After some discussion, the following resolution was adopted and ordered transmitted to the Railway Managers' Convention, held in Chicago, May 4th:

WHEREAS, The market in and west of Chicago was glutted with California green fruits last year; and

Whereas, The outlook is for a much larger crop this year; therefore, it becomes imperative that markets east of Chicago be developed, and to this end fruit-growers ask a $400 rate to New York, for cars leaving California in special ten-car trains, and running through on passenger time.

Resolved, That the State Horticultural Society of California respectfully urges the Convention of railway managers to grant the rate asked for by the fruit-growers, as the prosperity of our fruit interest depends upon low rates of transportation to Eastern markets.

Subject for Next Meeting.

Senator De Long spoke of a blight which had caused his Bartlett pears to drop from the trees. It was decided to discuss at the next meeting "Blights and Fungoid Diseases of Fruit Trees." Mr. W. G. Klee, State Inspector of Fruit Pests, agreed to examine Senator De Long's trees and open the discussion at the next meeting. The society then adjourned.

Lemon Picking and Curing.

EDITORS PRESS:—My article on "How Lemons are Cured in Sicily," which appeared in a former number of PACIFIC RURAL PRESS, having been copied, and causing some inquiry among those interested in lemon culture, I should like to add a little more on the subject through the columns of your good paper.

A gentleman in this portion of the State has been studying the subject for some time, and after testing the matter has become convinced that lemons should never be allowed to ripen upon the trees, and has accordingly adopted the Sicilian method of curing them.

For lemons shipped to S. F., ripened upon the trees, he formerly received from 60 cents to $1 per hundred; he now receives from $3 to $5 per box for his lemons, depending somewhat on the supply and demand.

This gentleman is still experimenting and does not claim that he knows all about this profitable business.

Those who have handled lemons extensively know that many times a ripe lemon picked from the tree, when cut shows seeds already sprouting, which, of course, indicates a decline in the quality of the fruit, as decay must precede germination.

An accidental test of the foregoing method was given by a gentleman near Santa Paula, and may not be amiss here. Two years since his lemon trees being overburdened with fruit, he picked off a quantity in February, throwing them in a pile under one of the trees, as of no value. On July 4th, of the same year, the lemons that were kept covered and dry were found to be of excellent quality—to the profound astonishment of one of our largest orchardists.

One does not wish to run the risk of too hasty conclusions on a matter of so much importance, but it is certainly worth testing, and if practicable, much fruit would thus be saved that is now unmarketable.

MRS. M. E. DUDLEY.

Santa Paula, April 12, 1887.

THE STABLE.

Equine Surgery.

In our issue for April 16th we mentioned that the leg of a valuable mare had been amputated in Pennsylvania, and that she was said to be doing well. Desiring to learn more about the case, we dropped a note of inquiry to her owner, and have just received the following in reply:

AVONDALE STOCK FARM COMPANY,
AVONDALE, PA., April 25, 1887.

EDITORS PRESS:—In reply to your letter of inquiry, we would say our mare is still improving. The stump is healing rapidly, she has a good appetite, has not lost a great deal of flesh, and can get down quite comfortably, but we usually give her some assistance to get up. She is due to foal in three or four weeks, and we have every hope of saving the lives of both mare and foal. Your account is substantially correct. The doctor's name, however, is Huidekoper. Any further information we will gladly furnish upon inquiry. Very truly,

C. N. BARNARD, Treas.

DIPHTHERIA IN HORSES.—J. C. Wolfskill, of Suisun, owner of the noted race mare Idleweiss, said recently to an *Examiner* reporter: My mare has got something like the diphtheria, and that's what we call it up our way. Several others of my horses have got it. Their mouths are as sore as can be and their tongues coated and ulcerated. J. L. Pritchard's filly, Adaline Cotton, has the same thing. Some of W. B. Todhunter's horses at Sacramento also have the disease, and I have heard of several other cases. That's the reason more of them have not been entered for the Blood Horse races. They are in good condition, but their mouths and throats are very sore.

THE PUBLIC LANDS.

Settlers' Rights Upheld.

The President has sent to the Secretary of the Interior the following letter:

EXECUTIVE MANSION,
WASHINGTON, April 25, 1887.

Dear Sir: I have examined with much care and interest the questions involved in conflict of claims of Guilford L. Miller and the Northern Pacific Railroad Company to certain public land in Washington Territory.

The legal aspects of the case have been examined and passed upon by several officers of the Government, who do not agree in their conclusions.

Miller claims to be a settler upon the land in question, whose possession dates from 1878. He alleges that he has made substantial improvements upon this land and cultivated the same, and it appears that he filed his claim to the same under the Homestead law on the 29th day of December, 1884.

The railroad company contends that the land is within the territory or area from which it was entitled to select such a quantity of the public land as might be necessary to supply any deficiency that should be found to exist in the specified land mentioned in the grant made by the Government to said company in aid of the construction of the road, such deficiency being contemplated as likely to arise from the paramount right of private parties and settlers within the territory embracing said granted lands, and that the land in dispute was thus selected by the company on the 19th day of December, 1883.

A large tract, including this land, was withdrawn by order of the Interior Department from sale, and from pre-emption and homestead entry, in 1872, in anticipation of the construction of said railroad, and the deficiency in its granted lands. In 1880, upon filing a map of the definite location of the road, the land in controversy and much more, which had been so withdrawn, was found to lie outside of the limits which included the granted land, but its withdrawal and reservation from settlement and entry under our land laws was continued upon the theory that it was within the limits of the indemnity lands which might be selected by a company, as provided in the law making the grant.

The Law Question.

The legal points in this controversy turned upon the validity and effect of the withdrawal and reservation of this land and the continuance thereof. The Attorney-General is of the opinion that such withdrawal and reservation were at all times effectual, and that they operated to prevent Miller from acquiring any interest in or right to the land claimed by him.

With this interpretation of the law and former orders and action of the Interior Department, it will be seen that the effect has been the withdrawal and reservation, since 1872, of thousands, if not millions of acres of these lands, from the operation of the land laws of the United States, thus placing them beyond the reach of our citizens, under such laws, to settle and make homes upon the same; and this has been done for the benefit of a railroad company having no fixed, certain or definite interest in such lands. In this manner the beneficial policy and intention of the Government in relation to the public domain have for all these years to that extent been thwarted.

There seems to be no evidence presented showing how much if any of this vast tract is necessary for the fulfillment of the grant to the railroad company. Nor does there appear to be any limitation of the time within which this fact should be made known, and the corporation obliged to make its selection.

After a lapse of 15 years this large body of the public domain is still held in reserve to the exclusion of settlers for the convenience of a corporation which is a beneficiary of the Government and waiting its selection, though it is entirely certain that much of the reserved land can never be honestly claimed by said corporation.

Such a condition of the public lands should no longer continue. So far as a result of executive rulings and methods these should be abandoned, and so far as it is the consequence of improvident laws these should be repealed or amended. Our public domain is the national wealth and an earnest of our growth and the heritage of our people. It should promise limitless development and relief to the crowding population and give homes to the thrifty and industrious. These inestimable advantages should be jealously and carefully guarded and an enlightened policy on the part of the Government should secure them to the people.

In the case under consideration I assume that there is an abundance of land within the area which has been reserved for the indemnity, on which no citizen or settler has a legal or equitable interest, for all the purposes of such indemnification to this railroad company, if its grant has not already been satisfied. I understand, too, that the selections made by such corporations are not complete and effectual until the same have been approved by the Secretary of the Interior or unless they are made in the words of the statute under his direction.

You have thus far taken no action in this matter, and it seems to me that you are in a condition to deal with the subject in such a manner as to protect this settler from hardship and loss.

I transmit herewith the papers and documents relating to the case, which were submitted to me at my request. I suggest that you exercise the power and authority you have in the premises upon an equitable consideration, with every presumption and intendment in favor of the settler; and in case you find this corporation is entitled to select any more of these lands than it has already acquired, that you direct it to select in lieu of the land upon which Mr. Miller has settled other land within the limits of this indemnity reservation upon which neither he nor any other citizen has in good faith settled or made improvements.

I call your attention to Sections 2450 and 2451 of the Revised Statutes of the United States, as pointing out a mode of procedure which may, perhaps, be resorted to if necessary for the purpose of reaching a just and equitable disposition of the case.

The suggestions herein contained can, I believe, be adopted without disregarding or calling into question the opinion of the Attorney-General upon the purely legal propositions which were submitted to him. Yours very truly, GROVER CLEVELAND.

THE DAIRY.

Holstein-Friesians for Butter.

The following records from the Lakeside herd, Syracuse, N. Y., will undoubtedly be of interest. They have been made since the last catalogue of this herd was issued, and are good proof of the quality of Holstein-Friesian milk:

Name.	Lbs.	Ozs.	Days.	Lbs. Milk to Lb. of Butter.
Albino 2d, 3 yrs	25	14¼	7	18.69
Albino 2d, 3 yrs	106	14	30	.....
Bonanza Maid, 5 yrs	25	3½	7	15.85
Clothide 4th, 3 yrs	23	10¼	7	18.17
Netherland Chaperon, 9 yrs.	19	8½	7	18.99
Lambertina, 10 yrs	19	4	7	21.17
Imogenia 2d, 3 yrs	16	6	7	17.60
Artis Eva, 3 yrs	16	15	7	19.02
Lightsome, 6 yrs	18	8	7	19.98
Belle Alexander, 5 yrs	16	4	7	19.01

Albino 2d gave, as a 2-year-old, 18,484 lbs. 13 ozs. of milk in a year, which is the largest milk record ever made by a heifer of her age. Bonanza Maid is of the Albino family.

Clothilde 4th is from Clothilde, which gave over 26,000 lbs. of milk in a year, and sired by Netherland Prince, which is also sire of Netherland Princess 4th and Aaggie's Second Daughter.

Netherland Princess 4th made, when only 28 mos. old, 21 lbs. 10⅔ ozs. of butter in a week, the largest record ever made by a Holstein-Friesian of her age. Aaggie's Second Daughter made 15 lbs. 1 oz. of butter in a week when 2 years old, and had no grain either before or during the test.

This is certainly flattering to Netherland Prince as a sire, and shows that the Clothildes are enormous milkers as well as great butter producers.

Oleomargarine.

NEW YORK, April 28.—The *Tribune's* Washington special of the 27th says: "The subject of oleomargarine will be treated in the next bulletin from the Agricultural Department," said Commissioner Colman to-day, "and the people of this and other countries will receive full and explicit instructions how to detect the presence of the deleterious matter. No later than this forenoon I received through the Secretary of State a communication from Baron Favo, the Italian Minister, in which he requests information as to the scientific tests used by our Government to detect oleomargarine, butterine, suline and other compounds made to supersede butter. In my reply I shall give the result of the investigations made by this department, from which it appears that even the carcasses of horses, dogs and swine have been utilized in the manufacture of oleomargarine, and the manufacturers were not particular about the condition or age of the meat or bones, either. I had a personal experience at my home in St. Louis. When I went to the butcher's shop to get some meat for several hunting dogs that I kept at the time, I often saw that maggots and fly-blown meat were very conspicuous in the refuse barrel at that place. When I asked the proprietor what he intended to do with such material, he said it was intended for the butter-factory."

JERSEY SALE.—The thoroughbred Jersey herd of Major Robert Beck, the late well-known cattle-fancier, is offered for sale by his widow. They number somewhat over 30 head registered in the Jersey Cattle Club Book. Fifteen are cows, nine of which are now in milk. The young stock includes seven heifers. The head of the herd, "Jersey Duke," has received the first premium at two successive State Fairs. He was out of an imported cow, owned by John W. Coleman, of Oakland, and is now five years old. All the young stock is of his get. There are two young bulls in the herd beside him, which are now at the ranch of Senator Johnston, near Richland. It would be likely to prove a good speculation, as they are to be sold at a sacrifice. Mrs. Beck has already received letters from Fresno and Santa Barbara that they could be disposed of at good prices in either place. All the cows are of imported stock and under six years old. A single graded cow goes with the herd. For particulars Mrs. Beck can be consulted at 510 Geary street, S. F.

HOLSTEIN HEIFER RECORD.—The Holstein-Friesian heifer, Imkje's Mercedes, bred and owned by Mr. Thomas B. Wales, Jr., of Iowa City, Iowa, dropped Feb. 24, 1885, sire Mercedes Prince (2150), G. Dam Mercedes (723), Dam Imp. Imkje (5310), has just completed one of the largest butter records ever made by a two-year-old of any breed. The statement of the test which is published shows that the heifer dropped her calf before she was two years of age, and at 25 months and 12 days old commenced a seven-day butter test which resulted in the production of 21 pounds 8 ounces of unsalted butter in seven days. This is the largest butter record ever made by a Holstein-Friesian heifer with one exception, in which case 2⅔ ounces more butter was made. It is shown that the average quantity of milk required to make one pound of butter for the entire test was 14 pounds 11⅔ ounces. Also that the milk of the first two days made one pound of butter from 12 pounds 5 ounces of milk.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Fraternal Orders—The Grange.

The leading feature of this age is the number and extent of fraternal Orders and their followers. It seems but a few years ago when only the Masonic Order was heard of. Then came Odd Fellowship, first struggling and mysterious in infancy, then strong in full growth of manhood. Following these ancient Orders came those of our day, so numerous as to preclude our naming them. All have some good object in view and it is safe to say none are organized for an evil purpose. A large per cent of the population is enrolled on their books and are receiving benefits in proportion to their attendance or deserts. Life is short, and to enhance its pleasures and decrease its pains it is necessary to divide them with our neighbors; thus hand in hand we press forward to make the most of our opportunities.

In the cities, towns and centers of population the fraternal Orders thrive most, which is evidenced by their greater fraternal spirit and sociability, if we may so term it. This is because they see and meet each other more frequently than do the country people, and thus the fellow-feeling grows upon what it feeds.

It is not our purpose to belittle or discourage this fraternal tendency, but rather to indorse and encourage it with the limited ability we possess. This is an age of progress, of enlightenment and of organizations. He who does not enter one of these chariots will find himself left in the rear or groping in the dark. In numbers meeting together in fraternal consultation, there is wisdom, enjoyment and pleasure, all of which is well understood and conceded by those who so assemble.

Prejudice has kept many away and does yet, but prejudice is our worst enemy and should be discarded. It never can replace the pleasures it robs us of; its mission is to make the world miserable and to estrange its inhabitants.

When beginning these lines we had in mind one Order above all the rest of which we wished to speak a word of commendation. Having always resided on a farm, isolated as is the American farmer, we saw the social disadvantage under which we labored. Feeling the want of social and fraternal education, the country folk are too apt to deem themselves inferior to their city cousins—a state of things that engenders distrust, prejudice and jealousy—and really it is little wonder.

Feeling the need of greater fraternity and sociability among the scattered American farmers, a few wise men met together at the Capital of the nation and gave us the Grange. Here was presented the opportunity to the isolated farmer to learn who were his neighbors and to meet his fellows on equal and common ground, for mutual improvement and advancement. Something better might have been instituted for this purpose, but it was the best that *was* instituted, and we know the founders builded wiser than they knew. Having caught the fraternal spirit, the farmers will abide by the Grange until something better makes its appearance.

The institution and accomplishment of the Grange is the wonder of the age, and having outlived its youthful follies, errors and indiscretions, it is putting on the habiliments of manhood and discretion, and drawing to its support and commendation the good and true in every walk of life. It is at last understood that no one can be a good Patron who is not first a good citizen, and what benefits him benefits all mankind. As a result, the sentries of the Order are besieged with applications to enter, and the real, honest and eager demand for light, truth and fraternity is making itself heard all over the American continent, and nowhere more so than in our own beloved State.

What a glorious prospect, when the bulk of the American farmers and their wives and children meet together once or twice a month for mutual protection, enlightenment, culture, advancement and social greeting. The real progress will be in proportion to our zeal, but cannot avoid being immeasurably advantageous to all, individually and collectively, and extend its blessing broadcast over the land. First, we have the local Grange, then the State meeting once a year, and interspersed, the reunions in grove and hall, all bent on rendering agricultural life not only endurable, but pleasant, profitable and elevating; thus checking the outflux of our brightest talent to the city, and creating a demand for the exercise of more talent in the country. No one can deny the progress already made, but none can predict the brilliancy of the future if the guiding star of the Order is steadily kept in view.—*Sutter Farmer.*

A Gala Day in Contra Costa.

From what we learn from Brother Charles Wood and others, everything is favorable for an exceedingly pleasant and profitable Grange gathering at Danville to-day. The address of Dr. Stebbins will be given in the forenoon. We hope there will be a large and prompt attendance. The picnic is held in one of the best agricultural sections of the State, as well as one of the most lovely in scenery and climate. It is worth visiting, especially at this season, by all who like good outdoor recreation.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

THE very first act of the Interstate Commerce Commission is to break the law itself by suspending one of its most important provisions and authorizing certain railroads to charge more for a short than a long haul until after investigation; because the railroads claim that water competition compels them to carry at low rates to some points, and that therefore they must make it up where the people have no protection in the shape of "water competition." In other words, a thief may continue to steal until "after investigation" to see if he really needs the money he takes. Like the railroads, he is after the "big haul;" but the people have made laws saying *it shall not be done.* Is there one kind of law for the thief and another kind for railroads? The farmers are long-suffering, conservative, liberal, tolerant. Law-abiding citizens themselves, they have asked and *expect* "perfect equality before the law." After long years of effort they have secured this law as the *first* to control these giants in their intercourse between the various States. In more than 10,000 different neighborhoods where Granges are located they are vigilant and watchful, "holding the fort," watching and waiting for the proper administration of this law. The farmers of to-day are not the farmers of the past. *Now* they are organized and educated. The same power that brought about the Interstate Commerce law *can enforce it.*

FARMERS must organize for the purpose of protecting themselves against other organized bodies who seek their control and profits. The Grange admits all worthy farmers and their families into this national and fraternal brotherhood, for the purpose of frequently meeting together in consultation as to the best methods of cultivation, the most profitable crop to grow, raising of stock, mixed husbandry, securing supplies, marketing surplus products, and educating its members upon all questions of political economy and affairs of government, local and national, so that we may fully understand our rights and duties as farmers and as citizens. The educational work of the Grange familiarizes us with the ways and methods employed by other organizations, and enables us to meet upon equal ground, and by co-operating and uniting our efforts and influence, we can withstand the encroachments made upon us in the demands for our profits.

"THERE is no way yet provided by which the farmers of any community can become representatives of their class outside of the Grange. In the Grange, opportunity is not only offered for showing who are representatives, but the Grange develops the natural gifts of every member and leads him to the front, where his power may be seen and felt."—*California Patron.*

FARMERS are more and more appreciating the power of the press, and Patrons in particular are learning who are *with* us, who *against* us, and who show no signs of interest either way, and are giving their support accordingly. The following is excellent authority: "I desire to call your attention to the importance of sustaining the Grange and agricultural papers of our State, for they are the 'bone and sinew' of our Order. Good literature is the 'breath of intellectual life.' Every Grange should have a library wherever it has a permanent home. It will be of incalculable benefit to the rising generation. Let us encourage National agricultural literature."—*Ex-Gov. Robie, of Maine, Master of the State Grange.*

Suggestions for the Good of the Order: "In organizing Granges we should take in as charter members young people, and then success would be more sure. The young are more energetic, full of life, fun and frolic, more inventive. The old will come for the very pleasure of seeing their workings. It is the young we need to gather in and educate for both present and future action. Our work should be made attractive, spicy. Let the working hours be interspersed by song, essay' declamation or reading. A work for each should be the rule."—*I. L. H., California.*

"ONE sees the signs of the uplifting of farm-life in many directions. The more convenient and artistic houses; the improved stock; the magnificent dairies; the increasing culture of choice fruits; the general growing of window-plants; the more civilized country schools; the buds of promise in the tree-planting and village-improvement clubs—all these point in one direction—to the beautifying and enriching of the country, and to the refining and ennobling of the country's children." True enough, and the Patrons of Husbandry in their united work for the past 20 years have done more to bring these things about than all other causes combined.

A PASTOR writes: "Since the introduction of the Grange I have seen a remarkable change in the walk and conversation of my flock; they are more careful in their dress and general appearance, and are reading more."

PROGRESS.—*Seven more new Granges*—three of them in California.

IN the present Grange year, to April 13th, *one hundred and two new Granges* have been organized in the United States—eleven more than all last year together, and *it* was ahead of several previous years, and still they come.

NATIONAL GRANGE Lecture-work is now fully under way. Lecturer I. N. Lipscomb, of S. C., will at once commence work in Florida, to be followed by meetings arranged by the Masters of the State Granges of Ga., N. C., and other States in his District. Lecturer J. H. Brigham, of Ohio, goes to Kentucky in May to fill a series of meetings arranged by State Master J. D. Clardy. Lecturer C. L. Whitney, of Mich., goes at once to Colorado. Lecturer D. H. Thing, of Me., goes early in May into Mass., then into Md., Penn., etc. The National Lecturer goes to Va. in June to fill a number of appointments arranged by State Master X. X. Charters, then to Md., Penn., and out West in eight States in the fall. *Special* work is continued in R. I. and Mo.

OREGON S. L., H. E. Hayes is out on an active campaign, and reports a growing interest in the Order.

ALABAMA is brightening up. Deputy A. Dougherty reports organizing four Granges since the last State Grange meeting in December.

Yuba City Grange Picnic.

The Fourteenth Annual Picnic of Yuba City Grange is to be held at Hock farm, Tuesday, May 17th. The *Sutter Farmer* says: "Gov. Bartlett has been invited and has signified his intention of being present unless prevented by official duties. Col. John P. Irish of the *Alta*, who has few equals on the coast as a speaker, will be the orator. He hails from the Granger State of Iowa, is fully imbued with the cause of the agriculturists, and has been long enough in our beloved State to have become enamored of its glorious climate, soil, possibilities, and more than all, her open-hearted, liberal people. His perceptive faculties are acute, his learning and research great; hence he always speaks to the point. A great treat is in store for all who shall come within the compass of his voice."

A public dinner will be served upon the grounds, and no intoxicating liquors allowed. What with two bands of music, prize recitations, foot-races, dancing and exhibits of growing grain and cut flowers, a day of great enjoyment may be looked for.

The Gridley Fund Picnic.

EDITORS PRESS:—The Gridley picnic netted $275 and was a pleasant reunion; but much more will be needed to fill up the G. A. R. lot, where Gridley's ashes will rest in the center—marked by the monument which is to be here by the 28th and dedicated May 30th—with places for his family around, and outside them the resting spots of the G. A. R., Rawlins Post; and about all, a stone coping must be built.

The population of Nevada and all the Washoe mines has scattered and changed, or Austin would not have allowed us all the honor of rescuing her hero's name from oblivion. People of means recount how the great sum he raised helped to save dear ones from horrible death, yet they are tardy to set up a stone over his unmarked grave. His modest wife was at the picnic, and his daughter is in the mountains in delicate health. MRS. W. D. A.

Stockton.

NATIONAL FARM AND FIRESIDE.—This active Grange advocate has removed its office of publication from Baltimore, Md., to Grange Camp, Fairfax county, Va. The change was made on account of the close connection of the editor, Alex. J. Wedderburn, with the Grange Camp Association and the necessity of his giving personal attention to the affairs of the association. The District Grange of Northern Virginia will hold its Fourth Annual Exhibition at Grange Camp, August 11th to 18th, and hopes it will be the means of drawing a desirable class of immigrants to the county of George Washington.

BROTHER J. V. WEBSTER has returned from his farm, at Creston, San Luis Obispo county, in good season to attend the Danville picnic. He reports Brother Cressey as actively engaged in improving his stock ranch at Huero-Huero. Brother Cressey is expected at the Directors' meeting of the Grangers' Bank next week. We hope he will find time to visit some of our Granges and render an account of his recent interesting trip to the New England and Southern States.

MR. DANIEL INMAN, for many years President of the Grangers' Business Association of San Francisco, was presented by members of that body with a very handsome and valuable gold watch on the recent occasion of his retiring. Mr. Inman served the association ably and faithfully, and retired with the good-will of its members and the satisfaction of conscious fidelity.

YUBA CITY GRANGE has developed new life and gained new members since '87 came in. A "Question-Box," with replies and discussions, forms part of the literary exercises at each meeting, and much original thought and talent are thus brought forth.

SAN JOSE GRANGE is to have a picnic at Los Gatos the 14th, and hopes that the addresses expected from Bros. Steele, Pilkington and others will lead to the formation of new Granges in that vicinity.

SACRAMENTO COUNTY GRANGERS have their annual picnic at Beach's Grove, below Freeport, on Thursday of this week. We expect to hear of a jolly gathering then and there.

MR. SHIPPEE'S HORSES.—A RURAL representative visited recently the stables of L. U Shippee, situated on his stock farm near French Camp. He has a string of the Nutwood stock with Tempest four years old at the head, who made a record last fall of 2:29. Six of these are in training and have been entered in the fall circuit. They are likely to be dangerous competitors in each class. He was shown a fine thoroughbred by Joe Daniels and some promising young horses that were being broken to harness.

EARTHQUAKE SHOCKS, severe and prolonged, alarmed the people of Albuquerque, El Paso, Tucson and regions round about those centers on Tuesday last. "Old Castle," a lofty peak in sight of Tucson, has disappeared, and clouds of dust or smoke were rising from its ruins.

Stockton Notes.

[Written for the RURAL PRESS by MRS. W. D. A.]

In place of the looked-for spring showers, high winds and extreme heat ending in cold northers have suddenly checked the finely growing grain, and unless rain comes very soon not more than a quarter of a crop will be cut. Only well-tilled summer-fallow holds out against the drain. Toward Lockeford more rain fell, and fine fields of summer-fallow defy sun and wind. Farmington, near the foothills, had much more rain, and crops there and beyond look finely. Heavy dews refresh at night, but the grain is heading out very short. Each time this year when hope had died out, rain had come, and probably will come—too late.

Down the Calaveras, a gentleman paying money rent on 800 acres got the water on it, as did a farmer near; now the river is low. Many think the trouble of taking care of the river in high water overbalances the use of it in drouth. The hay, from which hired men and new-comers expected work, is very scant and will be cured with little help. It was a shame in the face of this doubtful year to overpuff the State and get people without present means here. Without homes or work they are forced to beg; and it is a greater shame that the Restriction law is not enforced and that hordes of Chinese are brought. Last week 700 came on one ship.

Pastures have been fine all the spring, and most farmers make a little butter to sell, which is down to 10 cents for a good article now. Eastern butter and the 37 oleomargarine factories in the United States have cheapened coast butter.

Think of 5537 retail oleomargarine dealers! And of 12,645,580 pounds manufactured and removed for sale in four months, 152,699 pounds of which was exported. Eggs are better—17½ cents per dozen; and poultry pays well.

Many are going from Stockton to the Grange picnic at Clements, a new and enterprising town in a fine farming part of the county.

Stockton, May 3, 1887.

Silk Culture.

Governor Bartlett has appointed Prof. E. W. Hilgard and Mr. J. J. Rivers, of the State University, members of the State Board of Silk Culture. These gentlemen have a long and intimate acquaintance with the industry and with the sciences underlying it, and their services in this connection will be of much public benefit. By visiting the State Filature, at 21 Montgomery avenue, S. F., one can now secure a practical demonstration of the rearing of the silkworm in all its stages, from the hatching of the eggs, feeding of the worms, spinning of cocoons by the silkworm, to the reeling of the raw silk. This exhibition will illustrate the wonderful operations by which silk is produced. Office hours are from 11 A. M. to 4 P. M. R. H. McDonald, Jr., C. W. T. Carter and S. A. Sellers, Executive Committee, and Mrs. Louise Rienzi, of the Filature Committee, have issued an invitation to the public to examine the workings of the institution as above stated.

Dude Cattle-Raisers.

Under the above caption the *Scott Valley News* quotes with disapproval the assertion that "cattle-raising on the northwestern range is not a business to attract any save those who have ample means at their back and can stand heavy losses," and then tersely expresses its own view of the case as follows:

This mistake accounts for the fact that counts and dukes and lords and dudes of different degrees, incapable of ever becoming American citizens, are monopolizing the cattle business; and yet the idea is encouraged by such big papers, whose editors do not know a lariat from a halter strap, while, as a matter of fact, owners of small herds could take better care of the cattle and furnish a better quality of butter and beef than the non-resident dudes, who hold immense territory against our own citizens for no other purpose than to make money out of a country in which they have no political interest and never expect to have.

IN AMADOR COUNTY.—W. G. Edgar, the Ione nurseryman, dropped in upon us Wednesday, having just come from his home at the head of Jackson valley. Corn, wheat and barley in his neighborhood are very promising, but from Clements down to Stockton the grain looked so poor that he felt sorry and says there will be no crop to speak of except summer-fallow, unless it rains very soon. There will be but a light crop of apples or peaches in his section and plums are almost an utter failure—owing to the hot norther which struck the trees while in bloom—but grapes and apricots are doing finely and promise a plenteous yield.

GENERAL AND MRS. BIDWELL got home from Washington last week, and met with a most cordial welcome by the Chico people. The city was decked with bunting, the military and firemen paraded, while music, bells and steam-whistles made chorus with the cheers of the citizens. The General and his wife were much affected by this kindly demonstration, which he acknowledged in a short address.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

FLORICULTURE IN OAKLAND.—To an *Enquirer* reporter, who lately called upon him, James Hutchison, of the 14th-street nursery, said: "There are about 20 acres right in the city owned by nurserymen and devoted entirely to the raising of flowers. This, of course, does not include ornamental trees and shrubs. I have about six acres, E. Gill has about three acres, Deasy has 1½ acres, Seulberger the same quantity, I believe; Turnbull has about 2½ acres, Keller about two acres, Newsome one acre, J. Carey about one acre, and Blair at Piedmont about one acre. Of course these figures do not represent the size of their nurseries, for all nurserymen devote a number of acres to ornamental shrubs and evergreens. Oakland florists are well patronized, both throughout the State and on the other side of the mountains. Every week I ship parcels of flowers, seeds and other garden stuff to Eureka, Salt Lake, Butte City, Montana, Chicago and St. Louis, and lots of other places."

NURSERIES.—"Then again," continued Mr. Hutchison, "fruit trees take up a large amount of room. There is an incorporated company of us, including John Rock, R. D. Fox, James Hutchison, S. H. Landers, Mr. Henn and Thomas Meherin, which owns 460 acres of land, near Niles, devoted entirely to nurseries for fruit trees of all kinds, strawberries, raspberries, currants, gooseberries, olives, grapes, figs—in fact almost every kind of fruit imaginable."

GRAIN AND HAY.—Livermore *Herald*, April 28: Drives over the valley and through the hills the past week clearly show that considerable grain was stunted during the long dry spell previous to the last storms. Much more is unhurt, and will make an excellent crop, with occasional showers. The volunteer hay crop will be very light, and, without more rain, much of it will not pay for cutting. With occasional showers for the next fortnight, considerable hay will be cut, but not more than one-fourth of last year's crop. There are occasional good stands on the volunteer, but the great bulk of this crop is already beginning to head out, and only good rains would bring a fresh growth. The chevalier barley bids fair to be very heavy.

Butte.

CONDITION OF CROPS.—Oroville *Register*, April 28: D. W. Echus, six miles west of Oroville, says: "There never was a better prospect for grain than at the present time in our section of the county." M. J. Biglow, of Gridley, says: "The long continued north wind did but little damage. Grain is growing very fast and the ground is still moist." Philip Hefner, who has 400 acres of grain six miles south of Oroville, reports grain as looking first-rate. M. Reyman tells us that grain on the west side of Feather river looks in fine condition and promises a good yield. H. Cohn, of Biggs, reports the crops in vicinity of Biggs and Nelson first-rate. A buyer from the Buckeye mill at Marysville is traveling in the county, has examined large tracts of grain in different localities, and thinks the indications good for an abundant harvest.

Colusa.

ARTESIAN INTERESTS.—Willows telegram, May 2: The artesian water struck some days since by N. D. Rideout seems to gain strength as it flows. The whole community is excited over it, and other wells will be put down immediately. Mr. Rideout has ordered heavier and improved machinery from the East, and will sink a well for irrigating purposes. Property already feels the effects, and owners are firm in prices. J. Hill, J. Troxel, F. Quint, the Glenn estate and P. R. Garnet will all sink wells during the summer.

CROP PROSPECTS are good. Summer-fallow is looking exceptionally well.

Contra Costa.

THE AGRICULTURAL SOCIETY of Contra Costa county is to hold its annual meeting at Pacheco Saturday, May 14th, at 1 o'clock P. M., to elect officers, etc.

Fresno.

A GOOD OUTLOOK.—In a private letter from Fresno, April 26th, Mr. Wm. Pool writes: Crop prospects at present are very favorable. In my ride last Sunday I was highly pleased to see so many fields of beautiful wheat, and the vineyards and orchards are looking very promising. I do think the Eisen, Barton and Fresno vineyards, along with many others, are the most beautiful and highly cultivated I ever beheld. I think on the whole this is going to be a prosperous year for Fresno county. Her population is increasing and her resources are developing, and all the avenues of business that are thronged in older places are opening here as fast as time will permit. I think the exceeding droughts of former years will never again visit this county.

Los Angeles.

THE LITTLE BUSY BEE.—Santa Ana *Standard*, April 30: The bees have begun their annual, semi-annual and monthly swarming and are lighting on housetops, capturing chimneys and flues, taking possession of the gable ends of dwellings and making themselves a nuisance as usual. This country is a paradise for them, and all they want is room to work.

CITRUS PRECOCITY.—Pomona *Progress:* Mrs. George E. Ross, on the Palomares tract, has a seedling orange plant one year old and four inches high that has a blossom.

Humboldt.

FLOCKS THRIVING.—Eureka *Standard*, April 25: James Lathbury came in this morning from Garberville and gives most encouraging accounts from that section. The grass is in magnificent condition, and cattle and sheep are doing finely. The product of lambs is excellent, and losses are reduced to the lowest percentage. Taking everything together, there is every prospect of that portion of Humboldt county enjoying a prosperous year.

San Benito.

HONEY AND HIVES.—*Free Lance*, April 29: The bee business of San Benito county is growing rapidly, and those who have devoted their time to it are making it pay. San Benito honey sells side by side with the best Los Angeles brands, commanding top prices. Our producers put their product on the market in the most attractive form possible, and to this end, neat, light boxes, holding about 21 pounds, are required. Frank Dalzell, of the Hollister planing mill, is doing a rushing business, having already cut up over 15,000 feet of lumber into these same frames, and has orders ahead for as much more. John Sherman, alone, used over 30,000 two-pound frames last year, and will use full as many this year. Mr. Dalzell expects to make over 60,000 one and two-pound frames this year, besides an immense number of the boxes to hold them.

San Bernardino.

KEEPING ORANGES.—Col. Tolles informs the San Bernardino *Times* that Mediterranean Sweets grown at Lugonia at an elevation of 1600 feet to 2000 feet can be kept, retaining their delicious flavor, for six months, by the simple process of wrapping them in tissue paper and storing them in a box at any convenient point about the house free from unusual dampness. A good ripe orange in August or September is quite a treat. The colonel has them on the mountains at La Praix's mill up to October and no decayed fruit.

San Joaquin.

GOOSEBERRIES.—Stockton *Independent*, April 30: H. H. Turner, of Linden, has half an acre of English gooseberry bushes which are very profitable. Last year he had 150 bushels and sold the fruit at 15 cents per pound, while other varieties brought but seven cents. Now he has 600 bushels on the half acre. The berries will be ripe the 1st of June, and about the size of walnuts. Mr. Turner has raised his fruit without irrigation.

MYRIAD ROSES.—Lodi *Sentinel*, April 30: In the yard of Mr. C. O. Ivory may be seen a white rosebush in full bloom, covering an area of over 600 square feet. The bush is twined over an arched lattice, and, at present, has no less than 10,000 blossoms upon it.

Santa Barbara.

MUSTARD.—Lompoc *Record*, April 30: There are some excellent mustard crops in the valley, promising even better than mustard did last year at this time, which yielded a ton per acre. The early sown crop is well up to the average, but late sown mustard will not make a good crop, unless one inch of rain should fall soon. However, the land can be put into beans and corn, and in the end little will be lost.

TIMELY THINNING.—At the Childs fruit-farm, adjoining the Santa Rosa ranch, the work of thinning apricots and peaches has commenced. The apricots are half-grown and the ground is literally covered with the superabundant yield picked to give better size and growth to that allowed to ripen.

Shasta.

A GOOD OUTLOOK.—Cottonwood *Index*, April 28: From every section of the valley come flattering reports. Grain on the uplands promises a good harvest, while on the bottom-lands the crop will be heavy. The fruit crop will be unusually large. Acorns promise to be abundant, which is an important item to hog-raisers. Orchards, vineyards, gardens—everything and everybody—look well.

Sonoma.

FRUIT PROMISES.—Petaluma *Argus*, April 30: J. W. Cassidy, whose orchard is just outside the city limits, has left at the *Argus* office two branches—one of cherries, the other plums, each just a foot in length. The cherry branch, of the Napoleon Bigarreau variety, bears 120 cherries no larger than buckshot; and the plum stem of like length carries 130 plums of like size. Mr. Cassidy has 700 cherry trees that will be literally bent to the ground under the weight of fruit. His plums and other trees are carrying every ounce of fruit they can bear. A twig only one foot long, from Chas. Roberts' place, had on it 46 well-formed apricots. If this may be taken as an indication, the apricot crop will be immense. [We should recommend prompt and resolute thinning in all such cases.—EDS. PRESS.]

Stanislaus.

IRRIGATED WHEAT.—Modesto *News*, April 29: A striking instance of the benefits that accrue to the farmer from irrigation is noticeable on the place of Joel Ripperdan, in the suburbs of Modesto. During the protracted dry spell, when everything pointed to a total failure of crops in the county from drought, a small portion of the field of wheat belonging to Mr. Ripperdan was flooded at intervals, and the result will convince the most incorrigible opponent of irrigation that it will pay to irrigate cereals. The patch mentioned, that was subjected to the vivifying influence of moisture, now stands 4½ feet high, and is headed out with kernels full, plump and perfect. The balance of the field is less than a foot high, and will not pay to cut even for hay. We have a specimen of the irrigated grain in our office that we should be pleased to have objectors to irrigation inspect.

GRAIN in all parts of the county is now in fine condition, and with ordinary weather and a couple of showers, the crop in all parts will at least be fair, and in some localities the yield of wheat will be larger than ever before.

Sutter.

ALONG THE FEATHER.—The editor of the *Farmer*, having taken a drive last week from Yuba City to Gridley and home again, says: The crop outlook on the west side was not so good as on the river road. The road running through flat lands and chiefly adobe soil, the crop shows the effect of the cold February rains and the cool, dry March. Fallow wheat is good, but winter sown is backward and small, although all has a good color, and, taken altogether, will make an average crop. Wherever the land was well drained, or the soil changed to a sandy loam, being warmer, the crop was stronger and heavier. In the vicinity of Gridley and the entire distance along the river from Gridley to Yuba City, the stand and growth were much better. Indeed, we saw as fine fields of wheat and barley, and many of them, as we have ever gazed upon. The appearance, too, of the county is steadily improving. We saw many new evidences of prosperity and progress. Gridley is a thriving, growing town, and fast putting on city airs. It is surrounded by a country that has no superior in the State, and to us, who knew the locality when it was only the "Gridley sheep ranch," it was a matter of astonishment and we could hardly believe our eyes. It was the same along the river road with live-oak growth, progress and prosperity on every hand.

Tulare.

GRAIN PROSPECTS.—Visalia *Times*, April 28: M. J. Byrnes, of the Visalia Grangers' Union Branch, returned from a trip through the southern portion of the county on Saturday. He was as far south as White river, and traveled over most of the farming country between Deer creek and Tail Holt. He reports the grain in that newly settled section looking well, especially near the foothills. The grain around Alila is not in so bad a condition as has been reported—a portion of it looking exceedingly well. The farmers all feel confident of harvesting fair crops. George McCann was over from Cross creek on Monday. He reports the grainfields much benefited by the late rains, and says that notwithstanding the fact that crops will be short in some localities, the farmers generally will fare well, owing to the high price of wheat.

A FERTILE REGION.—*Times:* The lands in the immediate vicinity of Visalia and extending to the foothills on the east are most productive. Irrespective of wet or dry seasons, the soil never fails to produce the most abundant crops. Much of this land has been cultivated annually for 30 years, and still remains as productive as when the plowshare first turned the virgin soil, without any artificial enriching. It is not an uncommon thing for young trees in this section to make a growth of 12 to 14 feet in one season; cornstalks grow as well, and on each one of them may be found two or three ears of well-filled corn; sweet potatoes weighing 8 to 12 lbs. are common, and Irish potatoes from this section weighing from eight ounces to a pound are seen in the market the year round. Peaches weighing 16 ounces and measuring from 10 to 13 inches in circumference are shipped hence by the box in their season. All vegetables and fruits grow here in about the same proportion as those mentioned. Water for irrigation is abundant. Land can be purchased at from $30 to $75 per acre.

Yolo.

GROWING RAMIE.—J. T. McMahon in Winters *Express:* I got my first ramie plants from the State University last January. I planted 10 and was so well pleased with the growth of these that I sent to New Orleans for 10,000 plants, enough to plant one acre. They were planted about the 1st of March, and are now six inches high. As soon as I have a chance to cultivate the rows, I will invite the citizens, and farmers in particular, to inspect my field of ramie, that any one interested may see the plant during the different stages of growth, up to time of cutting and curing.

Yuba.

THRIFTY OLD ORANGES.—*Appeal*, April 29: In Byron Burris' garden, at Brown's Valley, are a number of flourishing orange trees. Two of these are each 22 years old, and their trunks are nine or ten inches in diameter near the ground. They are only ten feet apart, are crowded by other trees and shrubbery, have had little or no care and scarcely any cultivation, yet they flourish and are unharmed by frost. From these two trees Mr. Burris took last year over 2000 fine oranges, most of which he sold at 25 cents a dozen, realizing over $20 from each tree. There are other orange trees flourishing in the neighborhood.

BERRIES AND CLOVER.—John Palmer, at Brown's Valley, has four acres in strawberries, which, he informed the *Appeal*, give an average of about $250 an acre, above all expenses. He also has four acres in blackberries, which pay about $200 to the acre, net. Last year he sent some to S. F., and they were so large that a dealer wrote to ascertain the variety. But they were the common Wilson stock, and their size is attributable to the superior advantages of our foothills for berry production. Mr. Palmer has two acres in red clover, and cuts three crops a year, beside pasturing the land in the fall. He gets four or five tons of clover hay to the acre. His irrigation costs him $120 a year. His berry patches are very carefully cultivated, and he uses wood ashes and all the barnyard manure he can save upon his place. He has a beautiful home, owns considerable land and is said to have money out at interest, all from the profits of berry culture. When he began to grow berries, everybody told him he would fail. Yet he has made a great success of it, although he has to haul his fruit 12 miles to market.

ARMY WORMS have again appeared in the willow thicket on the south side of the Yuba river. They began to show themselves about a week ago, and have since multiplied with amazing rapidity. Many willow trees have been stripped of their leaves by the all-devouring insects. They first show themselves as little black worms on the trunks, close to the ground, thence climbing to the branches. For days past they have been crawling over the railroad track through the willows, and upon the D-street bridge. A little tar daubed upon the rails is sufficient to stop the march of the host. Should they get into the city, the gardens would be apt to suffer.

ARIZONA.

GREAT RAISIN VINEYARD.—L. A. *Herald*, April 30: McPherson Bros., the great raisin-makers of Orange, in this county, have completed the planting of their great raisin vineyard in the Salt River valley in Arizona. It will consist of 640 acres, and contain some 400,000 Muscat vines. The grape in the Salt River valley ripens about three weeks earlier than in the Los Angeles valley. This will enable the growers to supply the Eastern markets in August, before the crop matures in this section, while Los Angeles can supply grapes six weeks later than the Arizona crop will last.

OREGON.

FRUIT PROSPECTS IN SOUTHERN OREGON.—Ashland *Tidings:* Up to this time there is promise of an abundant fruit crop in the Ashland orchards—peaches, prunes, plums, cherries, apricots, pears, quinces, apples. We have had some frosty weather this spring—not more than in the Willamette, however—but the trees will be loaded unless a May freeze-up should happen, which our friends need not apprehend.

GALLOWAY CATTLE.—Our readers will find the grand Galloway "Borderer of Drumlanrig," whose portrait appeared upon our first page during the last State Fair, doing duty in our advertising columns this week in announcing a great sale of his breed in Denver, on June 10th and 11th prox. The portrait well represents the nobility and picturesqueness of the Galloways, as well as indicates their solidity and shapeliness, which are gratifying to sordid beef-makers. Though the Galloways have been known in California for several years, their showing at our last State Fair was the largest ever made and many friends were made for the breed. Visitors at the fair will remember that the largest display was the herd brought out by Mr. George L. Goulding as manager for Leonard Brothers, of Missouri. After a successful campaign with the cattle on this coast, Mr. Goulding returned eastward as far as Denver, and established a firm of cattle dealers under the name of George L. Goulding & Co.—a concern which we are informed by disinterested parties has large resources and is trustworthy. The attractive announcement in our columns of the Denver Galloway sale should command the attention of our readers not only in this State, but in the great cattle States east of us. Full particulars of the sale may be had from catalogues, which will be sent on application to George L. Goulding & Co., Denver, Colo.

A USEFUL AND APPROPRIATE MONUMENT.—Engineer Symons, U. S. A., has prepared plans and specifications for a memorial bridge across the Potomac, at Washington, in honor of General Grant. The center length of the bridge as designed is 4650 feet, 1339 feet less than that of the Brooklyn bridge. The central span is 160 feet wide in the clear, the main arches span 240 feet, and the smaller arches span 120 feet. The carriageway is 40 feet wide, and the two sidewalks 10 feet each, making the total width of the bridge 60 feet. The cost is estimated at $10,000,000.

GLIMPSES FROM GOLETA.—Mr. Sexton sends us a fine photogram of the Goleta table at the Santa Barbara Rose Fair and of his own floral booth, which was briefly noticed in last week's RURAL. Better than any merely verbal portraiture, it enables one to form some conception of these ingenious and delicate pieces of floral skill, to view which in the beauty of their natural hues must have been a delight indeed.

THE LATEST VICTIMIZER of farmers works thus: He displays numerous pretty workboxes, nicely bound books, etc., and promises them to each subscriber to some magazine. Then he shows other fancy articles, all which he will send to subscribers for the magazine at a very small price, which must, however, be paid in advance. And the paying in advance is the last of it.



Springtime on the Mountains.

[Written for the RURAL PRESS by MARY P. ARMS]

Over the hillside all damp from the snow,
The green leaves start up while the March winds blow.

When the April sun loosens winter's hold,
Spring blossoms give us their white and their gold.

Miracle of bloom! o'er the earth so brown,
Ermine-hooded winter, yield up thy crown.

The grasses waken from their winter rest,
The bee is astir on honeyed quest.

Little rills of autumn, swollen with snow,
Now rush like rivers with broadening flow;

And tiny mountain streamlets, ice-bound long,
Ripple on their way with murmur of song.

The whole being of nature is stirred,
The notes of the lark and robin are heard.

Rich fruit the autumn and summer-times bring,
But dearer by far is the new life of spring.

Beckwith, Plumas Co., Cal.

The Child's Prayer at the Farmhouse.

[Written for the RURAL PRESS by MAID-OF-ALL-WORK.]

The harvest is all up at the farmhouse. The fields stretch away in unbroken green against the azure sky of spring. Low white clouds float across the sky, flecking the sun-tipped hills with moving shadows, or massing in dark-lined processions across the north, ready to fling themselves away in fleeting shadows, or gathering at sunset in the rosy west to glorify the passing of the day king with their gorgeous temples of crimson and gold.

The song of the one lone singer of winter comes lower and softer with the fading day. A fleet rabbit skims through the dewy grain, scarcely as tall as he. The light wind moves the tender blades and they begin to whisper together the new songs of spring.

It is all hope at the farmhouse when the first warm days break out over the bright-green fields. Hope overspreads the wide sky resting in the calm blue depths or shining on the snowy clouds piled heavenward. The air is soft and fresh, as if blown from some new land.

The old dark roofed farmhouse even seems to look bright and new, with its clean, winter-washed walls, the grass springing up about its doorsteps, and the happy linnets hunting about its eaves for new nesting-places, as if it would show forth to the new year the hopes that renew like the spring under its unpolished shelter.

So it is wherever the warm touches of spring come to the heart of nature; it is hope and new strength, and humanity stirs and moves newly onward to the round of deeds and thoughts that sum up human life.

It is this humanity that looks ever forward, if not upward, that lives as tragically, as sorrowfully, as sickly, under any brown far-away roof as in the crowded places of traffic and rushing incident. The great questions of existence are vital among the lonely hills, and life slips away among sunny fields with the same passionate visions, the same steady gazing into the future, as where periods are marked with greater events. Pain comes silently, care grasps tightly, pride poisons, ambition hurries, and shadows of coming sorrows move darkly over warm hearts that look out of low windows to the changing shadows on the hills. Hope changes from an ethereal maiden to a deep-eyed presence of plainer garb, but she is nearer and more human. Desire becomes more sincere and prayers multiply; and so it is, when the crimson glory changes to dusky gray in the twilight, that hope, weak in its own strength, is folded in the strong wings of prayer and borne upward, carrying the heart of the farmhouse into the land of the eternities.

Evening brings quiet; the display, the pride, the failures, the unfinished tasks are covered by the curtains of night, and every life, whatever be its hope, must wait for rest. The young, the weary, the restless, the brave, the Christian unwearying in well-doing, the revengeful and jealous fearing all men, the sorrowful and weak, father, mother, sister, and child, all must encamp in the tents of darkness, surrender all knowledge, and give hand and heart to the mysterious ghost of dreams.

The first prayer of childhood tells it all—"Now I lay me down to sleep." The statesman, weary beyond all speech, and revolving great schemes, the student regretting that he must sleep, the housewife with care on her brow and pain in her heart, the maiden smiling much to herself, each and all let go of life in the silent watches of the night and are as little children. What are plans, sorrows, poverty, pain or gladness? unconsciousness covers all.

We are brothers in the tents of darkness, we lay aside the buoyancy of health, statesmanship, genius, the grasp of foresight, and the frailty of sickness, to be alike silent, helpless and irresponsible under the spell of dreams.

The sunny hearted child pauses in its laughter to repeat slowly the wonderful prayer of childhood that none can hear without heeding, "Now I lay me down to sleep." The invalid listens, acute to every sound. Perchance he is numbering his good-nights; perchance he sleeps on the border land of the great unknown; but notwithstanding all, he must fold his hands, like the ruddy child, and close his longing eyes on the loving and the loved.

We lay our burdens down, as God wills, and sleep.

But our souls then—waking or sleeping, our souls are God's own. Unwittingly the child lisps, "I pray the Lord my soul to keep," thinking most of the birds and brooks and her play hours; while the invalid lying alone is summing up the incidents of many years, some for gain, some for glory, rich with love, harassed with wrong, years of strife and acquisition all for self, but none for God, and the sufferer breathes out deeply and sincerely, ere the child voice is still, the long, long prayer of life, "I prav the Lord my soul to keep."

Whether the years were spent carelessly or fruitfully; whether love did well or pride did wrong, what can we do but murmur daily through it all, stumbling, striving, rising or falling, "I pray the Lord my soul to keep."

There are degrees of right and shades of error, and while we strive for the right, yet are doing the wrong, who shall keep our souls but God? We may multiply prayer on prayer, we may pray for faith, for hope, for grace, virtue, holiness, but through it all we are making the one petition of artless childhood, "My soul to keep." "If I should die." Sometimes, amid green fields and spring-time breezes, and the healthful and regular passing to and fro at the farmhouse, comes the unspoken, unformed thought quietly falling like a shadow: "If I should die before I wake." Sooner or later the sad old earth will begin to whisper to you its one never-forgotten dirge. The mother at the farmhouse cannot go; her children would suffer. The snapping asunder of the frail cords that bind her warm heart to her home would leave all the hopes and possibilities of that home to the selfish care of alien hands. The father cannot go; he is one of the world-builders. The student cannot go; he is binding himself to life. The child least of all knows what death is or life may be, and yet it bends a baby face over folded finger tips to pray each night, "If I should die."

"If I should die"—to leave bright streams and flowering hills, paths and gardens for the vague unknown. To know no more the joy of life and the grace of gentle friends. To leave the pursuits we have labored so hard to learn to do; to leave the pleasures we have given our lives to learn to enjoy. Have we been forgiven for our thoughtless errors, one to another?

Have we made the green leaves of hope to grow in the barren places of sorrow? What matters it "if we should die"? We may do everything as for God's laws; we may be happy, prosperous, worthy of it all, but between the setting and rising of the sun, we may die.

Clasp the baby fingers closer; they may be beyond our reach soon; bend the gray head; lower the proud brow; let fall the long waves of hair over hidden faces; be humble where the wide fields sweep up to the stately house; for, if you must die ere the late moon rises on the dark night, you may multiply words on words, but there is only one prayer for you: "I pray the Lord my soul to take."

Singers, prayers, preachers and mourners, all may pray, but it is the one highest and last need of the human race, "my soul to take." The good, the powerful die, the sword of the great leader is eaten with rust, the voice of the wonderful preacher is gone, the cottage-door swings open and the humble and unknown pass out into the silent land, but there are no orders of going. He who gives can only take.

What matters it whether life be grand or simple, what state of wrought emotion, what wording of lofty thought, can express more than these four lines—the prayer-destiny of every life:

"Now I lay me down to sleep." After toil, after care, after courage, after triumph, after failure, the sweet calm of sleep, quietude and forgetfulness.

"I pray the Lord my soul to keep." The daily and hourly reward of an upright and godly life, the "kept" soul contains through every battle of sorrows, the defense of the righteous man against his own weakness.

"If I should die before I wake." The possibility of sudden death, the uneasiness of life, the disaster that lurks in every wind, the pitiable helplessness of disease, the burdens of age—these are our heredity.

"I pray the Lord my soul to take." This is our consolation and our strength, the bright star that shines upon every sorrowful road, the sustenance of life and the victory of death.

Can child pray less or aged pilgrim more?

Fold then the tiny fingers where fields grow green, and in the simple habits of the old farmhouse, forget not that sweet and immortal prayer, childish, yet holy and profound, written in monosyllables, yet comprehending the creed of all religions, and the religions of all civilizations.

Contra Costa Co.

NO IMMEDIATE DANGER.—The earth is supposed to lose time at the rate of half a second in a century. Therefore, if the earth ever ceasee to revolve on its axis, it will be more than 6,000,000,000 years before it will stop.

To a Dreamer.

[Written for the RURAL PRESS by CHARLES P. NETTLETON.]

Gliding, drifting down life's river
Wreckage floats and floats forever.
Wreckage—some of sick and mad hearts,
Wreckage—some of wild and sad hearts;
Life-wrecks, soul-wrecks, clash and clear,
Wrecks of all weak man held dear—
Wreckage, wreckage, gliding, shifting,
Man has sent it all a drifting.

Wouldst sleep on—and add to sorrow?
Do thy great deeds ere to-morrow,
Dally not o'er daily pleasures,
Life holds more than earth's mean treasures;
Starving souls demand thy labor,
Love thou them and own thy neighbor.
More gain have men the more men give;
Wake—live the life man's soul may live.

Camp-Fire Stories—Soldiers' Life In War.

General Willich's love of discipline and his efforts to raise all grades of his command to his own high standard of excellence, sometimes led him into mistakes. These errors, however ludicrous they might be, did not lessen the respect and esteem of the soldiers. They had an admiration for his manly courage and a perfect faith in his loyalty. His military capacity inspired confidence, and his almost parental solicitude for the welfare of his "boys," as he called the soldiers of five regiments forming his brigade, won from them affection and devotion. Four of these regiments were the 32d Indiana, the 15th and 49th Ohio, and the 89th Illinois, while the 39th Indiana, the 15th Wisconsin, the 8th Kansas and 51st Indiana became at different times the fifth in number, the four first-named regiments having served together until the close of the war.

One evening some six-mule U. S. wagons attached to the brigade were being "parked" for the night. The country was wooded and thinly settled, and our camp was not far from the road by which we had marched that day. The General noticed that one of these mule-teams was obstructing those forming the park. It prevented those behind it from being aligned, as required by military usage. Something was plainly wrong. Incompetence often caused blunders in every branch of the service. Men who had never seen a mule at home, perhaps had never owned a horse, might try to exchange the known hardships of a soldier for the untried duties of a teamster, and so tempt Providence by attempting the control of six army mules at once—bought and branded by Uncle Sam, yet popularly credited with rebellious tendencies and generally believed to be possessed of the d—l.

These mules which attracted General Willich's notice, as needing proper guidance, were, to use a newspaper phrase current during the war, becoming badly demoralized. No two of them acted alike, and what with standing on hind legs, plunging down on fore legs, varied with frantic surgings to either side, or trying to lie down and roll in harness, braying of mules mingling with army curses from the unfortunate driver, there was certainly something wrong. General Willich was riding a young and spirited horse—a gift from his boys—and he galloped toward the entangled team and ordered the driver of it to "Go on!" The low bushes, which, as a natural shrubbery, hid the ground, were being trampled by the mules. The teamster was in actual distress before Willich came to intensify his torture—if that were possible. He had, without warning, encountered a swarm of yellow-jackets; probably came up in time to be punished for damage done to the nest by others, who had excited them but had escaped the usual penalty. Before the teamster could explain to the General's satisfaction the cause of his multitudinous trials, the horse which Willich was riding suddenly became afflicted with the same violent plungings before made manifest by the disordered mules. General Willich's splendid horsemanship enabled him to keep his seat, but his horse screamed and plunged with pain—the pugnacious little hornets stinging both horse and his now sympathetic commander, who rode away at full speed and was soon out of sight.

Willich had never before been known to retreat without developing the full fighting strength of an enemy. The wagon-master soon ordered up fresh teams which pulled mules and wagon away from the victorious yellow-jackets. A danger signal was planted to warn other teamsters away from the belligerent and plucky little defenders of the soil. When one of General Willich's aids rode up, a few minutes later, the train was moving regularly again and some good-natured laughing had displaced the excitement created by the unexpected interference.

The soldiers who had faced danger in battle without flinching, and who even opened beehives (in spite of stings) to obtain honey, were not so ready to fight yellow-jackets. There was no glory, no honey, no tempting evasion of military rules and regulations. But there was a certainty of stings, and of inglorious defeat; made harder to endure by the presence of men who needed laughter so badly that they fairly ached for some mishap (to another) to furnish excuse for uproarious fun-making. If it was very ludicrous, the story would spread through the camps like a prairie fire; it might even travel farther—the United States mail might convey it to acquaintances at home; a fellow's best girl might laugh at its appearance in citizen's dress, and by return mail report it back to him and make him feel that the shock of battle was a trifle in comparison with a soldier's idea of a camp joke.

General Willich's experience with those yellow-jackets may have helped two of his soldiers some time afterward to escape punishment, when the possession of a beehive, under suspicious circumstances, might have resulted in *confiscation* of the honey, as well as the arrest and punishment of the soldiers. Without dwelling too long on the risks they had run in foraging, and the hardships undergone in securing the hive and transporting their treasure-trove so far toward camp, we may state a few facts.

The beehive had been laid on an army blanket, the ends of which were twisted tightly to keep the bees inside of the blanket and to prevent a sally from the captives while on the march. The soldiers had become separated from their regiment while foraging and securing the plunder; the time so used for this extra duty had brought them in the rear of the column. It was while they were tramping along, trying to find the brigade, that a sharp turn in the road brought these two belated soldiers—stragglers — "bummers" — "absent without leave"—foraging in violation of orders—directly in front of brigade headquarters.

General Willich was in front of his tent, facing the road, sitting on a camp-stool within 50 paces of them. It was too late to go back; the General halted them on sight; the provost guard would certainly capture them if they tried to escape.

Willich ordered them to advance. One of the soldiers was "toting" the beehive, which, although inclosed in the blanket, yet suggested by its shape the nature of its contents. The other soldier was doubly armed, by carrying his own musket and that of his comrade. There seemed to be no time for deliberation, nor chance for parley. The comrade in charge of the guns suddenly dropped them and began to fight imaginary bees in the air. He brushed them from his face, knocked his feigned winged assailants from right and left, and then threw himself on the ground and rolled over in a seeming paroxysm of desperation.

The General may not have been fully deceived by this cleverly acted pantomime, but he halted the soldier who was slowly advancing with the beehive.

The General motioned him away with his hand, sorrowfully saying with his German accent: "Go on! go on! Soon there will not be one man left with two eyes in my brigade."

February, 1887. EDW'D E. CHEVER.

Woman Suffrage in Kansas.

Kansas is the first State in the Union that has granted women the privilege to hold office and vote. They have long enjoyed the privilege of school suffrage there, but seemed to care very little for it. The Legislature last winter gave them the right to vote on all municipal affairs, and as all towns of a population of 250 or more may be incorporated, woman suffrage is practically established.

For this reason the April elections this year possess more than usual interest. It has been a standing objection that women, as a rule, did not want the franchise and would not use it if given to them. This illusion is now dispelled. The official returns show that two-fifths of the registered voters were women, and that over two-fifths of the men voters registered and voted. From this it appears that the women appreciated their privileges and discharged their duties as citizens quite as well as the men. They took a lively interest in caucuses, primaries and conventions. They were extensively employed in registration offices, and served on Election Boards. Several were elected to school offices. On election day the women were out in full force, active, aggressive, persuasive, and the ticket they generally favored in nearly every instance was elected.

Another objection to woman suffrage is that it would add no moral impulse to civic affairs; that the average woman is no better than the average man. There is nothing in the objection. The question is one of right. As long as tramps, drunks and ignorant aliens are allowed to vote, why should the women be kept away? But this election dispels this objection, thin and worthless as it is. The pulsation of a fresher and better life in politics was felt the moment woman came on the field. Take the city of Leavenworth, the largest city in the State, with a population of about 40,000, as an example. Here the battle between the good and bad elements was most hotly fought. The friends of saloons, brothels, deadfalls, gambling dens, and the leaders of jobs and rings had had possession of the city for four years. Into this Sodom came the new voters. The saloon newspapers pawed the air, the smut-mills spurted, the jails were unlocked and the inmates voted, the brothel-keepers were out with their hacks and fair frail ones—the very depths of infamy were scoured for voters, but the ticket supported by the earnest, virtuous and patriotic women won, where it could not have won without their aid. It is certain that Kansas is none the worse for the experiment, and that Leavenworth and other cities are assured of much better municipal government than ever before.

YOUNG FOLKS' COLUMN.

A Country Evening.

[Written for the RURAL PRESS by J. T. O.]

Anxiously the woodcutter sits and watches the setting sun,
He knows when it disappears his labor for the day will be done.

"The plowman homeward plods his weary way,"
And thus ends his work for one long day.

The schoolboy comes home whistling along his way,
And ends his school-life for another day.

His chores for the night now have begun,
His work for the day is by no means done.

Out to the hen-house and coops he goes,
And to the hungry little chickens and their mothers some feed he throws.

Up in the pasture now he is gone,
The cows and horses to bring home.

The cows to milk and the horses to feed,
The flower-beds and the grass to weed.

Now by his mother to supper he is called,
Down to supper he sits with his father, mother, men and all.

He enjoys his supper, for he loves to eat,
And when at last we leave him he is fast asleep.

Yuba City.

We print the foregoing rather for its truth to nature than for the music of its meters.—EDS. PRESS.

The Little Window-Washer.

[Written for the RURAL PRESS by I. H.]

(*Concluded from last week.*)

"My niece tells me you are in trouble, Susie; let us see what we can do to help you out of it. You have got a good mother, haven't you?"

"Yes'm," said Susie shyly but positively; she had no doubt on that subject.

"Now, tell me, who do you think knows best, your mother or you?"

No answer. Susie's eyes were cast down and her cheeks crimson.

"Tell me truly what you think; is it you?"

"No, ma'am; it's my mother."

"Then don't you see that you were a very foolish little girl to tease her into letting you do a thing she thought unwise?"

Two big tears slowly rolling down were all Susie's answer.

"I am sure you do," said Miss Ann kindly. "Let me see your basket."

Susie handed it to her.

"Just as I thought—poor worthless trash. Where did you get these things?"

"At Mason's."

"Mason's! You poor child; they cheated you because you knew nothing. I'll see about that."

And there was a decided ring in Miss Ann's voice which left no doubt that she meant what she said.

"Now, Susie, this is what I will do. I will take your things and give you back your dollar, if you will promise to take it to your mother and tell her you are sorry. Will you do that?"

"Yes'm," said Susie between her sobs, which were not caused entirely by grief.

"Very well. You can come back here on Saturday morning if your mother will let you, and we will try to find out some better and more sensible way for you to help her. Going out with a basket is not fit work for a child like you; it is very little better than begging, and would lead you into idle ways and bad company."

As Julia went to the door with Susie to let her out, she put in her hand one of the packages she had brought from the candy-shop, but it was not the one she had bought for May Allison.

"What in the world will you do with all those things, Aunt Ann?" she asked, returning to the dining-room where the old lady was making Susie's merchandise into a a parcel. "There are enough pins there to last you a lifetime."

"One paper of pins would last me a lifetime," said Miss Ann; "they don't wear out, and I don't lose them. But I have no idea of keeping this rubbish. I happen to know Mr. Mason, and I shall take it back to him and let him see how a poor child has been treated by one of his clerks. If he gives me back my dollar, good and well; if he keeps it, I will not have to go to the poorhouse."

Dollars, as Julia well knew, were rather scarce with Miss Ann, but none of them ever went for caramels, so she was pretty sure to have one to spare for any emergency.

"Do you think she will come on Saturday?" was the next question.

"If she does it will prove that she is worth helping; if she does not, then any effort on her behalf would be thrown away."

"And what will we do with her when she does come?"

"I don't know yet; we must set our wits to work, you and I. I said Saturday that we might have time to think."

"We? O Auntie, it will have to be you. What do I know about earning money? I never earned a dollar in my life."

"And you are 15 years old," said Miss Ann. "It is time for you to think a little about such matters, it seems to me."

Nothing more was said just then, for Mr. Middleton soon came home and engaged his sister in conversation on other subjects. But after Julia had gone to bed, she lay awake trying to think of some plan for Susie. "I have earned my pocket-money sometimes," she said to herself. "Mother used to pay me for making patchwork when I was a little thing, just learning to sew; she pays me now—why, there! I have it; that's the very thing." If mother had been at home, Julia would have got up at once to consult her about the bright idea which had come into her head; but Aunt Ann would not approve of such an irregular proceeding, so she was obliged to sleep upon it.

The plan seemed quite as satisfactory when viewed by the morning light, and as soon as Julia was dressed she hastened to unfold it to her aunt.

"I was wrong when I said I never earned any money, auntie, for I do earn my own pocket-money, at least in a way. Mother gives me 25 cents a week for washing the windows of the parlor and dining-room. Nora has so much to do, and she said I ought to learn to do such things neatly, and it would make me more careful in spending my money if I earned it by my own work. How would it do for me to let Susie come and do it instead and pay her for it? unless you have thought of something better, Aunt Ann."

No, Aunt Ann had not thought of anything better; she was only too well pleased to have the suggestion come from Julia, and she approved it heartily. She had no doubt there were other busy housekeepers who would be glad to pay a small sum for having their windows washed, provided that Susie could be taught to do the work properly.

"I will teach her," said Julia; "she seems a bright little thing. I am sure she can learn."

May Allison got her package of caramels the same day at school, and the plan for providing Susie Carter with work was confided to her. She was deeply interested, and thought her mother would be glad to have the little girl once a week.

Saturday morning brought Susie eager and smiling, quite unlike the disconsolate little creature who had applied to Julia for help two days before. Her mother said she might do anything the ladies liked, she told them, and after she had had a large piece of gingercake and a glass of milk, Julia asked her if she could wash windows.

"Yes'm," said Susie; "I always wash the windows for mother."

"How would you like to come here every Saturday and wash four windows and get 25 cents?"

Susie's eyes sparkled; she would like it very much.

Forthwith, Julia produced her "tools" as she called them; a dishpan, soft rags, a piece of chamois leather, brought the warm water and set the child to work. She watched her for a few minutes, and then rushed off to find her aunt.

"O Aunt Ann, I wish you would come and look at her. I teach her, indeed! She does it better than I ever did, and she is so neat and careful. She must have a good mother."

Never did child try more faithfully to do her work well, and when the four windows were bright and shining she was rewarded by kind words of approval as well as by the promised quarter of a dollar. Then Julia carried her off to Mrs. Allison, who did all her own housework with the assistance of her daughters. She engaged Susie to come to her on Friday morning of every week.

Aunt Ann now promised to find two more customers for the little window-washer, and after lunch she put on her bonnet and shawl and went home with the little girl to see her mother and explain matters to her.

"Such a nice young woman," she said to Julia on her return; "if you had seen her you would not wonder that Susie is a neat and well-behaved little girl. The two rooms they live in are poorly furnished and in a dreary neighborhood, but they are as clean and orderly as it is possible to imagine. The mother herself is so quiet and gentle that I almost laughed when I thought of your asking Susie if she was afraid of a beating. She was so pleased to think of the child getting some suitable work to do, and said a dollar a week would help them along wonderfully. She can easily earn that; and she is to come to us every day for an hour to say her lessons. Keeping her out of school altogether would never do."

Miss Ann has been as good as her word, or even better. To-day Susie Carter has quite a round of houses where she goes to wash the windows, and her one dollar a week has more than doubled. She pays the rent of the pleasant, cheerful rooms where she and her mother and Jack are now living, and there is no longer any need to wait for a pair of shoes when they are wanted.

Julia has found other means of earning her pocket-money, and very little of it ever finds its way to the candy-shop. She is so much attached to her little protege that she enjoys nothing so much as making her some useful present, and is always "saving up" for that purpose.

Aunt Ann is the steadfast friend of both girls, and as she looks at them in their widely different circumstances she often wonders which has gained more good from their intercourse, her own niece or Susie Carter, the little window-washer.

Walnut Creek.

A Flower Piece.

In respect to the season and the prevailing disposition to hold floral fairs, we hoist a floral



DESIGN FOR BASKET OF CUT FLOWERS.

piece upon this page this week. It shows a very neat design of basket, flowers and ribbon garnishment, and if arranged in harmonious colors would make a very pretty arrangement for home or floral fair decoration.

GOOD HEALTH.

LIME-WATER AND ITS USES.—Lime-water, when applied to suppurating or mucous surfaces, checks or stops secretion and produces dryness of the parts; hence it is a desiccant, and is useful in sickness and irritability of the stomach during teething. The power of exciting and changing the mode of action of the absorbent vessels and glands has been ascribed to lime-water, and probably with some foundation, for under its use glandular enlargements have become softer and smaller—in other words, it is resolvent. It often relieves the superficial but painless ulceration of the mucous membrane of the mouth observed in dyspepsia. In these cases one part of lime-water to two or three of milk is usually sufficient. Given in this form, it will often stop the most violent sickness. In some scrofulous ulcers its power of checking secretion is most marked.

HOW TO TREAT THE FAINT.—Old Dr. Gittings, of Columbia, S. C., being called to a lady who had fainted, found the patient stretched upon a sofa, with a high pillow under her head. The doctor's first instructions were: "Take that pillow from under her head and place the family Bible under her heels, and she will be all right in a minute." One who heard him say it has never forgotten this remedy, and has practiced it repeatedly with great success. Fainting is occasioned by lack of blood in the brain. When the sufferer is placed in the position described above, the blood flows back into the brain and the fainting fit is over.

ABOUT WELLS.—In this section it has long been demonstrated that in order to get good drinking water it is necessary to bore to the second strata, and then shut out the surface water by water-tight iron casing. People using water from wells so bored are never bothered with malarial complaints, whereas, when surface water is used it has proved unwholesome. Wells are generally bored to the depth of 70 feet; but, while they are so bored, in not a few instances dishonest well-borers fail to put the casing down over 30 feet, and the result is the well is no better than a surface well, and in fact does not furnish either sufficient or good water. People, therefore, who have wells to bore should be on their guard, and when the boring is being done see to it that the casing is put into the well properly and to a depth sufficient to shut off the surface water. There are honest well-borers who do their work properly and squarely, but there are others who do not. —*Fresno Expositor.*

HONEY CURE FOR CHOLERA.—C. E. Willis contributes the following to the Santa Barbara *Press:* Dr. George Sowers, practicing physician in Socorro, has used pure honey as a specific for cholera for two years past, and has not lost a single case. He has had a large number of cases under his care, whole families being often attacked, and gives them honey, first, last and all the time and nothing else, for food or medicine. It is distasteful to the cholera patient, but is good medicine all the same. John A. Helphingstine, at present Superintendent of the Coronado Beach Company, San Diego, was long a resident of New Mexico, and reports that he has witnessed the wonderful success of this simple remedy.

DOMESTIC ECONOMY.

CREAM CAKE.—One cup of butter, two cups of sugar, whites of two eggs, three and a half cups of flour, one cup of sweet milk, one teaspoonful of soda, one teaspoonful of cream of tartar. For the cream: One pint of sweet milk sweetened to taste, yolks of three eggs; thicken with flour to the consistency of custard, flavor with lemon. This amount makes two good-sized cakes.

RAISED CAKE.—One pint of melted butter, two pounds white sugar, one-quarter ounce of mace, a teacupful of yeast, one quart of milk, flour enough to make a stiff batter; beat and set in a warm place to rise; mix it at night and let it rise until morning, then add one pound of stoned raisins, work well through, and half fill your cake molds. Bake in a hot oven for half an hour.

POTATO LEMON PUDDING.—Three ounces of potatoes, the grated rind and juice of two fine lemons, three ounces of white sugar, two ounces of butter; grate off the lemon peel with lumps of sugar, beat them and add to the other ingredients; boil the potatoes and peel them, mixing all together with the lemon juice and two beaten eggs; bake it slightly.

TAPIOCA PUDDING.—Wash four large tablespoonfuls of tapioca and let it soak for an hour in a little warm water; strain through a sieve and mix with the beaten yolks of four and the whites of two eggs, a quart of milk, half a teaspoonful of grated nutmeg; sweeten with sugar and bake in a dish an hour.

SAGO PUDDING.—Boil five tablespoonfuls of sago, well picked and washed, in one quart of milk till quite soft with a stick of cinnamon; stir in one teacup of butter and two of white sugar; when cold, add six eggs well beaten and nutmeg to taste. Mix all well together and bake in a buttered dish three-quarters of an hour.

FRIED APPLES.—Make a batter of two eggs, a pinch of salt, a cup of milk and six tablespoonfuls of flour. Slice, pare and core tart apples as thin as Saratoga potatoes. Dip them a spoonful at a time in the batter and fry. Eat with powdered sugar and cream or a liquid sauce.

COTTAGE PUDDING.—One egg, cream with one cup of white sugar and a quarter of a cup of butter, mix with two cups of prepared flour and one cup of milk, add the juice of half a lemon, stir briskly for five minutes, put into a cake pan, bake in a moderate oven and eat hot with lemon sauce.

STEWED KIDNEYS.—Soak in cold water half an hour. Skin them and stew slowly in just enough cold water to cover them. When done, thicken the gravy with flour; add salt and pepper, then dish. Kidneys should be used at once; they do not keep well.

FRIED PARSNIPS.—Scrape and leave in cold water for an hour, then cook half an hour in hot salted water; wipe, slice lengthwise, dip in melted butter, then in flour seasoned with salt and pepper, and fry in boiling dripping. Drain free of fat, and dish.

LEMON SAUCE.—The juice of one lemon, a half-cup of sugar, mix with a tablespoonful of flour, add a pint of boiling water and boil five minutes. Serve with nutmeg if desired.

SAUCE FOR FISH.—The yolks of three eggs, one teaspoonful of vinegar, quarter of a pound of butter, a little salt. Stir over a slow fire until it thickens.

EGG CAKES.—Chop hard boiled eggs to a mince, mix with mashed potatoes, and fry in small cakes to a crisp brown.

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The Week.

We have had a run of boreal zephyrs this week, which, agriculturally speaking at least, we would have been better without. North winds are valuable from a sanitary point of view and do good service when there is too much moisture and danger of rust, etc.; but with this year's moderate water supply, we have no pressing need of northers. There has been rain during the week at scattered points, but the great central area of the State has watched the clouds to no purpose. Much in grain yield and in the duration of pasture feed depends upon another good soaking before the rainy season closes.

The fruit outlook is still very good and prospects of a full operation of canneries and drying establishments, as well as much greater Eastern shipments, give confidence that though the crop be large there will be many uses for it. What fruit-growers think of the future of their industry may be found quite fully described upon another page.

The Distresses of Labor.

When the old sage declared that the sea was full of toil, he told only half the truth. The earth is also full of restlessness. The incessant moan and surge of the ocean is an emblem of the incessant moan and surge of human life. Its alternate storms and calms, its tidal pulsations that break in waves upon every shore, type to man the infinite unrest and disquietude of the human heart. There is little doubt that if every one could realize his wish, a large sum of unhappiness would still remain in the world. It is certain that industry and remunerative employment fail to bring peace and rest. People, as a rule, seem to be discontented with their lot, and this discontent, this inappeasable hunger for something more and better than we possess, when properly understood is prophetic of a nobler destiny.

But be all this as it may, there is one aspect of the labor question that no philanthropist, no heart warm with fraternal feeling, can look upon without some pain and dismay. We are constantly compelled to witness the poverty and suffering of men anxious to work, and trained to good, honest labor. Ever and anon along comes an invention that supersedes their shape of industrial activity, and often in middle life, with a dependent family on their hands, many once active, worthy, self-sustaining men are left with no work to be done. They have their hands, skill, and honest hearts, but there is no one to hire them. The energy of the muscle and brain is no longer marketable. Thus, for instance, thousands of coopers have been turned out of the shop with their drawing-knife, as there are machines now in operation by which one man can make as many barrels as ten men under the old method. The same is true of the nail machines, shingle machines, sewing machines, the reapers and headers, in short, all the labor-saving mechanisms of the day. No doubt these inventions send society forward, but the great iron wheel of the car of progress passes over many homes and human hearts. While the forms of labor are changing, those must suffer who lived by the first form and before they become adjusted to the new environment. It is not strange that a few men in their blind despair attempted to put the great Robert Fulton to death, for each revolution of his steamboat-wheel marked the retirement of seamen who for years had been sailing or towing their ships or barges along the lakes and rivers of the continent.

The great fluctuations caused by such innovations as the steamboat, the power loom, the railway and telegraph and telephone, are only conspicuous illustrations of what is occurring almost daily in less noticeable forms of labor. In all departments of life, individuals are set aside by progress, often before old age has set them aside or a competency made them able to retire from the struggle. The mail-carrier who can walk but 15 miles a day is discharged in favor of one who can walk 20, and the bookkeeper who, in the former generation learned to write a heavy round hand, is set aside for the young man who can make finer lines in the ledger.

But the special point we now desire to make is, that in addition to the distresses of labor caused by new inventions and by fluctuating taste, an immense quantity comes from the love of city life. To young men in the country, the city is a dazzling object. They are drawn to it as the moth-miller at night is attracted to a lantern hung in the orchard. The flow of young men toward the city is not determined by the law of demand, but by the law of dazzling attraction. In all these metropolitan centers the supply of labor is excessive, and the streets are filled with hundreds of persons with little or no money, seeking places that are not to be found. Advertise for a clerk or bookkeeper to-day and there will be a hundred applicants for the situation the next day. Like birds charmed by the cobra, young hearts flock to the city and are unable to fly back to the country. They buzz around this dazzling lure and are consumed. They hover around this raging maelstrom and are lost. There might be developed an agricultural spirit that would greatly mitigate these griefs of industry. There is no reason why farming may not be made as charming a pursuit as merchandising. It would only be necessary to throw into the pursuit the ambition and intelligence that make the successful lawyer or merchant. And this is one of the chief excellencies of the Grange. It is lifting farming into the region of the fine arts. If farming must always mean the struggle of an ignorant man over a few acres with a hut, a poor horse and a potato patch, the intelligent young men will be drawn to the city. But farming, fruit-growing and vine culture may mean in the country what merchandising means in the city—the rush of ambitious, thoughtful men. There is no reason why the occupation of a farmer should not be made so elegant and charming that between it and the handling of cases of silk, and the pursuit of medicine or theology, the best minds would confess little choice. Much has been achieved already in this direction, but much remains to be done, in order to check the rush of ardent, ambitious, but superfluous energy to that terrible, dazzling, devouring monster—the city.

The Freight Situation.

On another page is given a sketch of the present standing of the overland freight question as related to fruit shipments. There are other very important matters involved; for example, the wool question, which we outlined in our issues of April 16th and 30th. The matter was changed somewhat by the suspension of the long-and-short-haul clause, for upon that action one overland line gave the following wool rates to Boston: Compressed wool, valued at 12 cents a pound, $1.90 a hundred; wool in grease, valued at 18 cents, $2.15 a hundred; wool in grease, compressed and valued at more than 18 cents, $2.40 a hundred; scoured wool, compressed, $2.90 a hundred.

These are not the lowest rates on wool to the Atlantic seaboard, for the Pacific Mail offers to carry wool at $1.62½ per hundred, and the Canadian Pacific will haul it through the Dominion for $1.50 per hundred. But there are objections to both these avenues, although the offer of the Pacific Mail must be deemed the best now available, all things considered. It looks as though most wool would go that way unless figures are changed by the direct overland lines.

The low rate offered by the Canadian Pacific is tempting, but those interested say that the first clause of the Interstate law, which makes it apply to any common carrier engaged in the transportation of property for a continuous carriage or shipment from any place in the United States through a foreign country to any other place in the United States, makes them hesitate about accepting the low rates offered by the Canadians. The managers of the Canadian line will give no guaranty of safe delivery of wool in Boston.

There is now springing up some favor for the Interstate law among merchants and manufacturers, who suffer by masses of Eastern goods brought in at lower freight for the whole trip than our dealers can ship to some points in California. Of course, the raising of overland rates helps them. There are also agricultural interests which would be benefited by the enforcement of the short-and-long-haul section. Our beef and pork interests would be saved from such hard competition with Chicago, our egg producers would not suffer from "railroad eggs" and our barley is sometimes hurt by too much Nebraska corn. There are many things involved in the new legislation, as we have said, and it will take time to see just where the shoe will pinch.

GOVERNMENT ENTOMOLOGICAL WORK IN CALIFORNIA.—One of the gratifying results of Prof. Riley's recent visit is the assurance that the U. S. Government is now to assume local and continual jurisdiction over our insect pests. Prof. Riley establishes what he calls the Entomological Bureau of Northern California, and places in charge Mr. Albert Koebele of Alameda, who has been working upon California insects for Prof. Riley for the last two years—having been especially detailed at the time of the last grasshopper invasion. Mr. Koebele is a careful student and a very agreeable gentleman, and will be very acceptable to our fruit-growers. Prof. Riley expects soon to appoint an agent in Southern California. These agents will be glad to give information on insect pests for the public benefit.

Irrigation Enterprises.

The Stockton *Independent* says that Geo. Weller, of that city, has just concluded the purchase of a mining ditch which heads in Amador county, Italian bar, eight miles above Westmoreland's bridge, on the Mokelumne river, runs along near Lancha Plana, Campo Seco and Comanche, in Calaveras county, and terminates four miles southeast of Wallace, about 30 miles from Stockton. The price of the ditch, water-right and 160 acres of land is stated to have been $25,000. The length of the ditch is 17 miles; its average width 2½ feet at bottom and 6 feet at top, and its depth 3 feet.

It was constructed in 1858, for mining purposes, and a rental of $47,000 was paid for its use for one year, when mining was carried on extensively, and the renters made money by the sale of the water. In later years, repairs having been neglected, the value of the property decreased.

Mr. Weller proposes to enlarge the ditch into a canal of capacity and length enough to irrigate the northern portion of San Joaquin county and supply Stockton. He says the ditch will now empty water into Bear creek at an elevation of 100 feet above the level of the Mokelumne river. From that point, near Wallace, to Stockton the fall is 75 feet. From the Jack Tone place, on the route of the proposed extension, the fall is 40 feet. He estimates that water can be brought into Stockton through his canal for $100,000, and that with the necessary capital the work can be completed within one year.

An irrigation meeting was held at Porterville, Saturday, April 23d. H. M. White was elected chairman, and A. F. Thompson secretary. Mr. Pillsbury, of the *Register*, read the Wright bill, and, by request, explained the provisions of the law regarding organization. After a long and spirited discussion, a motion offered by Mr. Grider, that the chair appoint a committee of ten to investigate and report the territory most advisable to be included in an irrigation district, to prepare petition for organization, etc., to report to an adjourned meeting to be held in Porterville on the second Saturday in May, was carried without opposition. The committee was chosen as follows: W. R. Harris, Woodville; John Tuohy, Lewis Creek; J. R. Grider, Pleasant Valley; Jas. A. Kincaid, Frazier; T. T. Hamlin, Tipton; Capt. Jacob Hayes, Poplar; J. J. Cairnes, Harmony; Alfred Miles, Plano; Leroy Redfield, Porterville; W. L. Burnett, Tulare. They are to meet to-day, May 7th, and report to the adjourned meeting on Saturday, 14th, at 10 A. M.

Board of Horticulture's New Office.

The office of the State Board of Horticulture has been removed from 40 California street to 30 Post street. The idea is to bring the office nearer to the center of the city and adjacent to the hotels, so that fruit-growers visiting the city may find it more convenient to consult the State Inspector and the secretary of the board. The board has a very valuable library on horticultural and entomological subjects and other matters which are of interest to fruit growers. Let the change in number be noted—30 Post street, nearly opposite the Mechanics' Institute library.

VALUE OF ARBOR DAY.—Massachusetts observes its first legal Arbor Day this year. Ere long, probably, every State in the Union will have such an institution. Nebraska has furnished an illustration of the practical value of Arbor Day. In that State of great prairies, on the first of its Arbor days, 15 years ago, 12,000,000 shoots were planted; now the United States Forest Commission reports that there are fine groves growing 300 miles west of the Mississippi, and that 605,000,000 trees are thriving where a few years ago none could be seen save along the streams.

SOME LAND STILL LEFT.—The land-grabbers have not yet got all of Uncle Sam's farm. Although the most choice portions have gone, it is encouraging to note that there still remain, unsurveyed, about 9,000,000 acres in Colorado, 12,000,000 in Arizona, nearly 30,000,000 in California, 49,000,000 in Dakota, 7,000,000 in Florida, 44,000,000 in Idaho, 7,000,000 in Minnesota, 39,000,000 in Nevada, 74,000,000 in Montana, 41,000,000 in Utah, and more than 20,000,000 in Washington Territory, and so on.

Freight Rates on Fruit.

What will be the charge for carrying fruit East this season is still the uppermost topic in horticultural circles. The rates asked for at the Fruit-Growers' Convention in Sacramento last November, viz.: $300 to Chicago and $400 to New York on special 10-car trains running on passenger time, are still contended for. The directors of the Fruit Union are urging the need of granting such figures upon the railway managers on this coast, and they claim that the figures cannot yet be assured, ostensibly because Eastern connections will not agree. For this reason appeal will now be taken to the Railway Managers' Convention, which assembles this week in Chicago, and R. B. Blowers, the Eastern manager of the Fruit Union, started eastward on Saturday evening, April 30th. Mr. Blowers' presentation of the subject in Chicago is to be enforced by a number of telegrams from horticultural and trade organizations on this coast, one of which, from the State Horticultural Society, appears upon another page of this issue.

The latest assurance secured from the California railway managers was given at a meeting with Senator Stanford and Mr. Towne in Sacramento on Saturday last. The following dispatch from Sacramento reviews the meeting and its results as follows:

The best that could be offered now was as follows: For single cars attached to passenger train, to Chicago, $500; to Missouri points, $420; for slow freight, $250 to Chicago and $220 to the Missouri.

The company offered further to run special fruit trains of ten cars each on a strict passenger schedule, starting each train one to three hours ahead of the regular passenger train and keeping it always ahead, at a price per car to Chicago which could not be definitely given, but which will be about $413. The price would have to be arrived at by adding to the slow freight rate per car, $250, the extra expenses of running fast trains from California points to Omaha, and that expense was figured at $120; and between Omaha and Chicago it could not be given exactly, but would be in the neighborhood of $43.

The company was prepared to give the Fruit Union a written guarantee on this basis, but its representatives did not feel authorized to accept these rates, as they hoped for still further concessions. The rates offered, however, are a decided improvement on those of last year.

Single cars attached to passenger trains last year paid $600 to Chicago; the proposed rate now is $500. The rate per car for trainloads is this year $413—$113 higher than last year; but when the conditions are considered, the proposed rates will really be a saving to the growers. In the first place, last season no train would be accepted of less than 15 cars, and, again, trains were not run strictly on passenger time; they were from 12 to 48 hours late in reaching Chicago, because owing to the difficulty of getting up such large trains on any one day, and the great additional risk incurred in delay, many of the shippers preferred to ship in single cars attached to passenger trains. As a matter of fact, the great bulk of green fruit last year was shipped at the $600 rate.

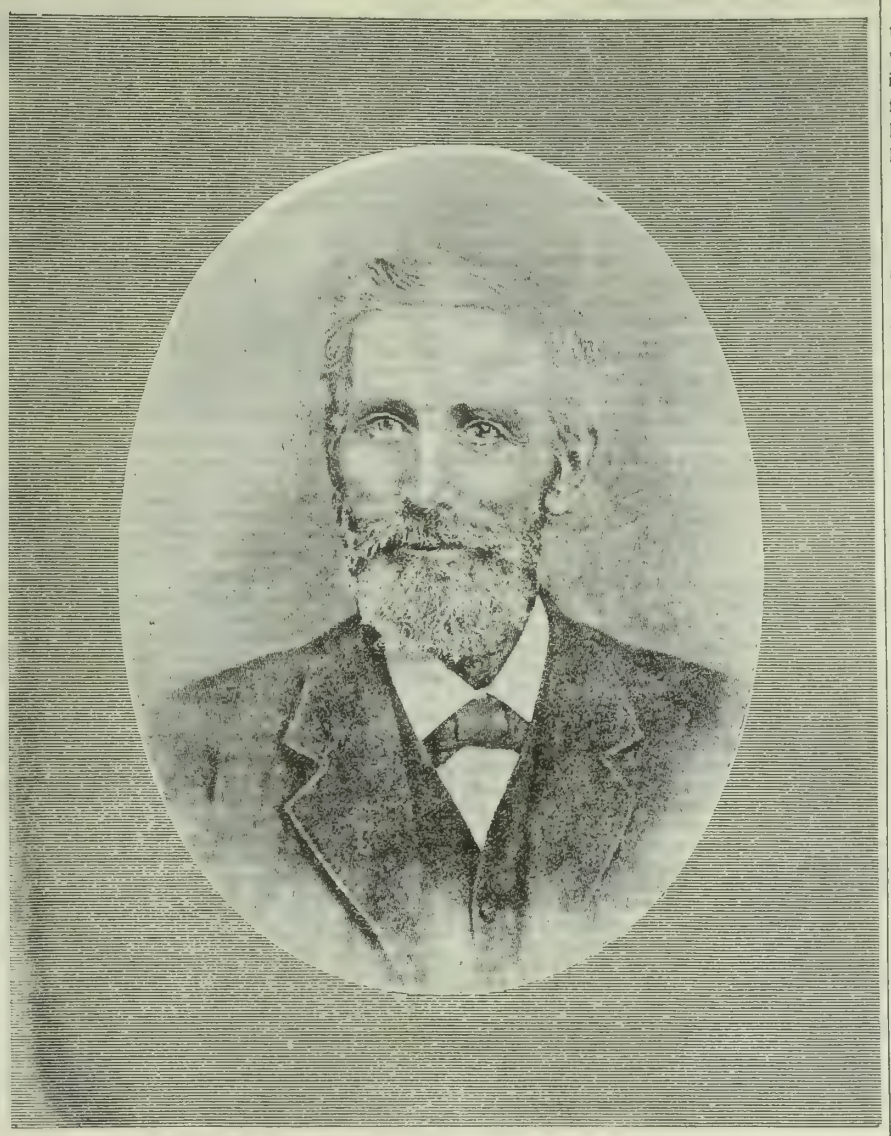
It is some comfort to know that the rates will not be greater than last year, as has been feared since the Interstate Commerce law has figured in the situation. It is a fact that in some respects the figures are somewhat better than last year. But the Fruit Union directors are wise in contending for the rates proposed at the Sacramento meeting, for it is clear that to extend the business as is desired higher rates cannot be paid. It remains to be seen what can be done with the assembled representatives of Eastern and Western roads at Chicago.

It is Mr. Blowers' intention to proceed with his work in establishing agencies, etc., at Eastern points, as soon as he finishes his special mission at Chicago. He expects to remain until the first of this year's fruit comes upon the Eastern market, to note the results of the auction method at the far East, etc. Shippers will feel more confidence in his presence there, and his reports will be looked for with much interest.

Trespassing Shepherds.—The Southern Pacific Co. sued certain sheepmen in Kern county for trespassing on said company's lands and depasturing 2800 acres. The Superior Court at Bakersfield, April 25th, gave judgment in favor of plaintiff in the sum of $280, or ten cents an acre, the annual rent of the pasture lands. The suit was deemed of great importance in Kern county, as the railroad has contracted to sell hundreds of thousands of acres, and the purchasing parties have never felt safe.

Hon. Cyrus Jones.

As interest turns again to San Jose because of the holding this week of a floral fair in the Horticultural pavilion, we give upon this page a portrait of Hon. Cyrus Jones, already well known to our readers, and who, among his other progressive works, is to be largely credited with the prominence which the horticultural



HON. CYRUS JONES, OF SAN JOSE.

interest has secured by several successful fairs held in San Jose during the last two years. Mr. Jones organized the Horticultural Hall Association and led in the arrangements which resulted in the erection of the fine pavilion. He proposed the recent Citrus Fair which was so successful in many ways. He has been president of the Horticultural Hall Association since its organization, and may be counted upon for tireless effort and wise leadership in matters pertaining to industrial displays, for which he has peculiar genius.

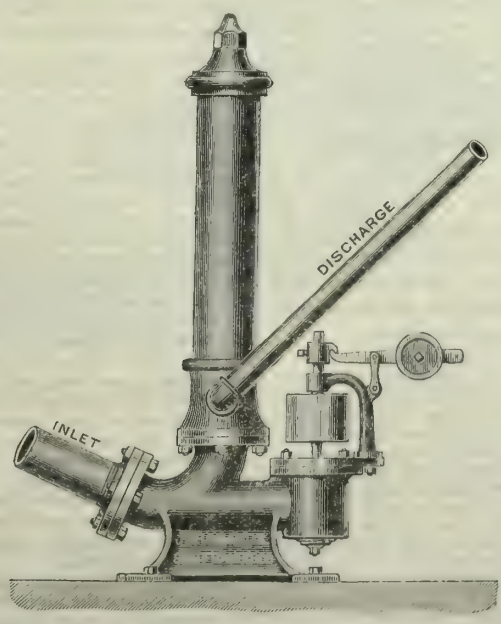
Cyrus Jones was born in Clark county, Ohio, June 21, 1822. Having finished his education at the academy in Springfield, he moved to Towanda township, McLean county, Ill., and engaged in farming and stock-raising, besides shipping stock to Chicago and New York. He was married February 3, 1853, to Margaret K., daughter of Judge Rayburn, of the same county.

Taking a fancy to fine cattle, he owned, for some years, a very choice herd of Shorthorns, and was one of the leading exhibitors at county and State fairs. August 1, 1872, having sold his stock, he started for California and passed the next winter in Santa Barbara. The following spring, in company with Gen. Giles A. Smith, he bought a farm near Alum Rock, known as the Avenue ranch, which he stocked with Shorthorns from Illinois and Kentucky. After the death of Gen. Smith, the herd was distributed through the State, each part forming the nucleus of a new herd. In 1880 Mr. Jones sold his interest in the Avenue ranch and moved to San Jose, where he still resides.

From 1874 to 1881 he was president of the State Cattle-Breeders' Association, and from 1878 to 1880 a director of the State Board of Agriculture. He was elected to the Assembly in 1875, and served two years. He warmly supported the New Constitution, and at the election which followed its adoption was a candidate for the office of State Treasurer.

Having amassed a considerable fortune by his industry and frugality, Mr. Jones retired from business in 1881. He still holds property in McLean county, Illinois. He is one of the largest stockholders in the Farmers' Union, and is a stockholder, also, in the First Nationa bank, both of San Jose.

Mr. Jones is an excellent representative of the retired farmer. He has been an active, working member of San Jose Grange ever since its reorganization. While accepting and faithfully serving in several offices in the Order, he has always declined being put forward for the higher positions.



RICHARDS' PATENT HYDRAULIC RAM.

A New Hydraulic Ram.

Hydraulic rams are employed to excellent advantage in a number of agricultural establishments in California. Where the conditions are favorable there is probably no cheaper way of securing a continual supply of water. We have, during the last few years, shown several styles of hydraulic rams. One of the latest designs is that set forth in the engraving on this page—an improved ram invented by John Richards, of this city. In this connection it may be remarked that, like the blacksmith's anvil, which was thought to be perfect, the old hydraulic ram has moved on to a new place among water-raising machines, and has been the subject of some very remarkable experiments in England, where an efficiency of 80 per cent has been gained with a ram of large size.

Mr. Pearsall, a member of the Institution of Civil Engineers, London, writing on the subject of hydraulic rams recently, says: "Almost the only application of the principle has been the common hydraulic ram invented by Montgolfier, 100 years ago, and very little improved on since. Almost all attempts at improvement have been only slight modifications, and have retained features that have unfitted these machines for use on any but a small scale, as more or less violent shocks were an inevitable accompaniment of their action. Indeed these violent shocks have come to be regarded by many people as essential to the working of such machines. Hence the name 'ram.'

"Careful consideration, however, accompanied by experiments, demonstrates this as an error. Violent shock is not essential to the action of the machines on this principle, though it is an invariable accompaniment of all existing machines. But it can be avoided, and by this avoidance the efficiency is not only not impaired but is increased."

This "revolutionary" proposition respecting hydraulic rams seems plausible enough when we consider that a shock or blow always indicates a loss of power in machinery of almost any kind.

Mr. Richards, in his smaller-size rams—those of less than eight-inch—employs two valves instead of one. These valves are nearly balanced, so they close with much less shock than a single valve. They moreover are not shut by the rush of the water around the valves, but by the action of the water after it escapes.

The engraving shows one of these rams arranged for a low head. The water issues at the top and bottom of the chamber at the right; that from the top strikes under the shield seen on the stem and is reversed by a curved surface beneath and thrown downward, so the impact and also the reaction is employed to close the valve. This operation is performed much quicker than with the old style of rams, but as the valves above and below are nearly balanced, there is but little shock compared to what occurs with a single valve—that is, there is but little shock on the valves or other wearing parts, although the pipes receive the full force. The weight and lever are employed in the case of low heads when the water pressure is not sufficient to sustain the valves with the small difference in their area. In other cases this weight is dispensed with.

In the larger sizes Mr. Richards proposes to adopt the isochronal valve movement, by which all shock is avoided. We see no reason why in such case a hydraulic ram of any size cannot be made and work successfully. Those employed by Sommeiler at the construction of the Mont Cenis tunnel had 30-inch pipes, and some of recent construction are even larger.

It is estimated that California's 1887 wheat crop will amount to 50,000,000 bushels.

Entomological.

Summer Treatment for Insect Pests.

The following are the summer and spring washes and remedies against insect pests recommended at the Fruit-Growers' Convention, held under the auspices of the State Board of Horticulture, at Riverside, April 11 to 14, 1887:

For Evergreen Trees.

Summer washes against the cottony cushion or white scale, *Icerya purchasi*, red scale on orange trees, also for the black scale, *Lecanium Oleæ*, on olive trees. Recommended by Prof. Riley.

Kerosene, 2 gallons=67 per cent.
Common or whale-oil soap, ½ lb., } 33 per cent.
Water, 1 gallon, ... }

Heat the solution of soap and add it boiling hot to the kerosene. Churn the mixture by means of a force-pump and spray nozzle for five or ten minutes. The emulsion, if perfect, forms a cream, which thickens on cooling and should adhere without oiliness to the surface of glass. Dilute before using one part of the emulsion with nine parts of hot water. The above formula gives three gallons of emulsion, and makes when diluted 30 gallons of wash.

Note.—It is of the greatest importance that the above mode of preparation is followed strictly, otherwise the result may produce an unstable emulsion, which has all the objectionable features of a mixture of water and kerosene.

The emulsion can be easily and quickly made by using a good force-pump, so constructed that it can be inserted directly into the liquid, which must be kept in constant and violent agitation by forcing it through some form of spray nozzle back into the same receptacle.

A slightly different formula was recommended by Mr. Elwood Cooper.

Five gallons best kerosene oil, 150° test, one and a fourth pounds good common soap, or one bar and a half of soap usually sold as pound packages; 2½ gallons of water. This makes the emulsion. When using dilute 6½ (to 7) gallons of water for each gallon of oil, and to this mixture add 2½ pounds of good home-made soap dissolved in boiling water. All this mixing is done with hot water. We usually have the solution up to 140° in the tank from which we spray.

For Cottony Cushion Scale.—The following is recommended by Prof. Riley, especially against the cottony cushion or white scale, known as "Prof. Riley's compound 152."

One pound of caustic soda is dissolved in 1½ gallons of water; then the two pounds of resin and one pound of tallow are dissolved in one quart of lye. After the resin is all well dissolved by moderate heat, the lye is added slowly while cooking under continued stirring; the mixture, if good, will become dark brown and thick. Should it become whitish and flocky (this is caused by too much and too strong lye), water should be added and it will become right again. This will make 22 pints of soap, for water should be added to make that amount, after the lye is in, at a cost of 11 cents, excluding labor and fuel in preparing it, which amounts to but little, and will be sufficient for 44 gallons of wash sprayed well. This is for *Icerya.*

Lelong's Wash. — The following, recommended by B. M. Lelong, is a recipe for making fish-oil soap for summer wash. Ingredients for one barrel of 50 gallons:

Potash	14 lbs.
Caustic soda, 98 per cent	8 "
Lime, unslacked	5 "
Fish oil, polar or seal	10 galls.

First dissolve the soda and potash by placing them together in 12 gallons of water. Second: slack the lime in the barrel to be used, in two gallons of water, then add the fish oil to the lime and stir well until the lime and the oil have turned to a thick butter, then add the soda and potash, water boiling hot, and stir well with a dasher for five minutes or more, then leave standing four or six hours; at the end of four or six hours, fill up with cold water; do not pour in all the water at once, but about two buckets at a time. Stir well as the two first buckets go in, to prevent lumps; use the following day. Apply cold, one pound to the gallon of water. In dissolving it do not boil, but weigh the amount to be used, place in a barrel, and on top of it pour hot water, about one bucket to every hundred pounds. After pouring in the hot water stir lively with a dasher until it is entirely dissolved, then reduce with cold water sufficiently thin enough to pass through the strainer; then place in the tank and fill up with water, stir well and it is ready for use.

For Deciduous Trees.

The following is recommended by W. G. Klee as a summer wash against scale insects affecting deciduous trees, as well as against pear slug, saw-fly larva and black-scab fungus of the apple and pear. (See Bulletin No. 5 by the Inspector of Fruit Pests:)

Dissolve 30 pounds whale oil soap (80 per cent soap at the most costing five cents per pound) in 60 gallons of water, by heating the two together thoroughly. Boil three pounds of lye (American concentrated lye is what we have used) with six pounds of sulphur and a couple of gallons of water. When thoroughly dissolved, it is a dark brown liquid (chemically sulphide of soda). Mix the two, the soap and the sulphide of soda, well, and allow them to boil for about half an hour, then add about 90 gallons of water to the mixture, and it is ready for use. Do not allow any of the mixtures to cool while mixing. Apply it warm, at about 130° F., by means of a spray pump. Used warm, its effect is better, and less material is required than when cold.

Treatment for Codlin Moth.

The following is recommended by W. G. Klee against the codlin moth: Burlap bands about six inches wide, fastened with a tack above, drawing the band close to the tree, leaving it loose at the lower edge. These bands should not be more than a foot from the ground, and the bark on the trunk must be smooth and clean. In large trees, place rags in the crotches. Bands must be placed on the trees as early as May 15th, and must be examined every week. The ground must be perfectly smooth, especially around the tree; no rubbish or boards to be allowed in the orchard, as the larva will hide in them. These measures, in addition to the picking off of infested fruit, have proved a great protection in comparatively isolated places whenever the rules have been followed out strictly. In addition, the spraying with Paris green and London purple is recommended for trial.

Proportions used: The following samples have been analyzed at the University of California by Mr. A. Weber, under the direction of Prof. Hilgard, and indicate clearly that they contain a larger amount of arsenic than common Paris green ought to contain; in fact, that they are adulterated with arsenious acid:

	Per cent.
No. 2	55.7
No. 3	38.3
No. 4	54.4

As the recommendations of W. G. Klee, in Bulletin No. 6, of 1 pound to 54 gallons of water was based on a supposed percentage of from 15 to 20 per cent, as used by the State Entomologist of Illinois, the quantity of water to be used to the pound must be placed at 1 pound to about 180 to 200 gallons. Sample No. 4 will most likely present the average of the Paris green in market, being bought from a leading San Francisco firm; it is recommended to strain the Paris green, and it must be constantly stirred, taking care that it does not clog the nozzle. A nozzle that can be opened, with a large aperture in case of clogging, is preferable; but the spray must be as fine as possible, and every fruit reached.

Time to apply: Apply the first time just after the trees are fairly out of bloom; the second time, 10 to 12 days afterward. Do not use any arsenites after the fruits have commenced drooping on their stems, as there is danger connected with its use that late. If possible, choose cloudy weather for spraying.

London Purple.—London purple is another arsenical compound. It is the residue from the manufacture of aniline dyes, and contains lime, arsenious acid and carbonaceous matter. It is more soluble, more adhesive, less poisonous, and generally less expensive than Paris green.

This compound is also exceedingly variable in its percentage. It contains generally considerable free arsenious acid, and for this reason should also be used in cloudy weather, as it may, if used too strong, burn the foliage. It is mixed to a paste and then diluted.

Owing to the uncertainty of the percentage of this compound we cannot recommend any definite proportion, but think that 1 pound to 100 gallons for the first spraying, and 1 pound to 200 gallons for the second, will be right.

It is clear that if these remedies prove efficacious we must have the compounds made by reliable parties here in the State, so that growers can obtain material of a uniform strength.

The Cottony Cushion Scale.

State Inspector W. G. Klee has just received the following interesting letter from W. M. Maskell, who first described the cottony cushion scale and gave it a name. In entomological literature his name also appears, so that the full style of the insect is *Icerya purchasi* Maskell. The following is the letter:

The Museum: Wellington, New Zealand, March 5, 1887.

Dear Sir: I much regret that I can give you no more certain information as to the original home of *Icerya purchasi* than this, that New Zealand is certainly not its home, and that Australia probably is. It came to New Zealand about the year 1877, and first appeared in Auckland upon a hedge of prickly or (kangaroo) acacia, an Australian plant. When I first saw it there, in 1878, it had almost destroyed the hedge (which was about 20 yards long) and the insects were clustered in hundreds on the dying plants. I did not know then as much as I do now about coccids, but I advised the owner strongly to burn every stick of the hedge. He neglected my advice. At that first visit *Icerya* was on that hedge alone, as far as I could see. I visited Auckland again four years afterward or so and *Icerya* had then spread over a large area about the city and was on numbers of different plants. Since then it has invaded with terrible effect a great part of the North island of N. Z. and the warmer parts of the South. It is now firmly established and the supine carelessness of the people allows it to ravage whole districts at will. But it is certainly, as the above shows, not a native of New Zealand.

I understand that it appeared at the Cape of Good Hope some years ago (long before it was established in this country) and that the people there called it the "Australian Bug." As the course of traffic by sea is usually from the Cape to Australia, I suppose it must have been taken there by people going to the diamond fields from Sydney or Melbourne.

In 1880 (I think) I was on a visit to Melbourne and took a run for a day up to Ballarat. There I saw, on various trees in a garden, a number of coccids, which I believe to have been immature *Icerya.* I was not in a position at the time to bring away any specimens, nor even to make more than the most cursory observation. But, if these were not *I. purchasi*, they were something very closely allied to it.

On the whole, from the above facts, I feel convinced that Australia is the country which has made to us and to you a present of this remarkably objectionable pest.

I am bound to say that I have never seen the *Icerya sacchari* of Mauritius alive. I have received specimens in spirits and they do not agree with *I. purchasi.* But might there not be two Mauritius?

If so, the exportation of sugar from that island to Australia, to the Cape, to California and to New Zealand, might well account for *Icerya purchasi* in all those countries. I have several times tried to obtain some information from Mauritius, but without effect.

Now as to natural enemies. As far as our experience goes, *Icerya purchasi* has none such in this country. The only coccids which I have found attacked by parasites here are some *lecanids* (chiefly of my genus *tenochiton*) one or two *diaspids* and a *dactylopius.* Birds do not eat *Icerya*, and in fact we have nothing here to check its increase, to my knowledge. Whether the *hymenopterous* parasites of *tenochiton* will some day attack *Icerya* cannot now be said, but everybody will devoutly hope that they may, and soon.

I shall have great pleasure in forwarding to you a copy of a work now in the press on New Zealand coccids, which will be out, I hope, this month. If it were not too importunate I would venture to ask of you to send me whatever publication of the same kind you could easily let me have from California. I remain, Yours faithfully, W. M. Maskell.

Remarks.

This letter shows that although Mr. Maskell first described the insect, he was comparatively late in seeing it. In his Riverside address, published in the Rural of April 23d, Prof. Riley said he first had specimens from San Francisco in 1872, and we know it was thoroughly established on acacias as early as 1876, as we had abundant samples of it and its work in that year. He also traces it back to 1868 at Menlo Park. Mr. Maskell's discovery of it in New Zealand in 1877 is therefore rather late, and the insect, as he states, had already become a great traveler.

Concerning this scale, in his remarks last week in San Diego, as reported by the *Union* of April 24th, Mr. Klee said:

The principal difference in the habits between this and some other scale insects was that while other scale insects were only able to move about for a comparatively short time, a few hours or days at the utmost, and then become permanently fixed, this insect is able to move about for the greater period of its existence, and not alone able to live on one or two species of trees, as is the case with the other scale insects, but seems to be able to subsist on almost any fare. He cited instances of the insect having lived for weeks without any food whatever, and increasing in size. This has made this insect the most difficult to exterminate. Coupled with this peculiar habit, is the great reproductive power of the *Icerya purchasi.* In California's climate, it generally produces three broods in a season, and a female quite often contains as high as 1000 eggs.

Notes on Dr. Gally's Birds and Bugs.

Editors Press:—In reply to Dr. Gally's interesting letter in your issue of the 16th inst., let me rise to explain that it does not take a smart man to answer his question in regard to the birds. Owing to judicious advertising they were induced to visit San Luis Obispo county, and have become so enchanted with this delightful climate that they have no desire to return to their old haunts. And now, as every real estate agent will testify, our mountains awaken to echo and re-echo their songs, and from every tree, bush or shrub, on mountain or in valley, a glad chorus testifies of bright prospects and of peace and plenty in this land of promise. No need to go in search of cherry bloom when all nature is blooming in such profusion.

The doctor is particularly hard on one fine bird that he calls mean, and says it is a greenish-brown bird with a long, slim beak; that it can't whistle, can't sing, and is not pretty. It surely had the blues in its old haunts at Watsonville and saw no good reason for whistling or singing. But you ought to hear him now as he warbles sweet melody from the topmost boughs of our orange trees. We call him the mocking-bird because he can sing, whistle or laugh, and often pauses in his song to make our real estate men happy by raising the price of land on a tenderfoot.

The doctor may fight his bugs single-handed, but we will have the birds so that, if necessity ever demands it, we will have their assistance in the unequal combat.

He asks if the bugs will follow the birds. Many of the *big bugs* have already arrived and are locating, but the impression prevails that they will not be injurious to vegetation or detrimental to the growth and prosperity of our community. F. U. N.

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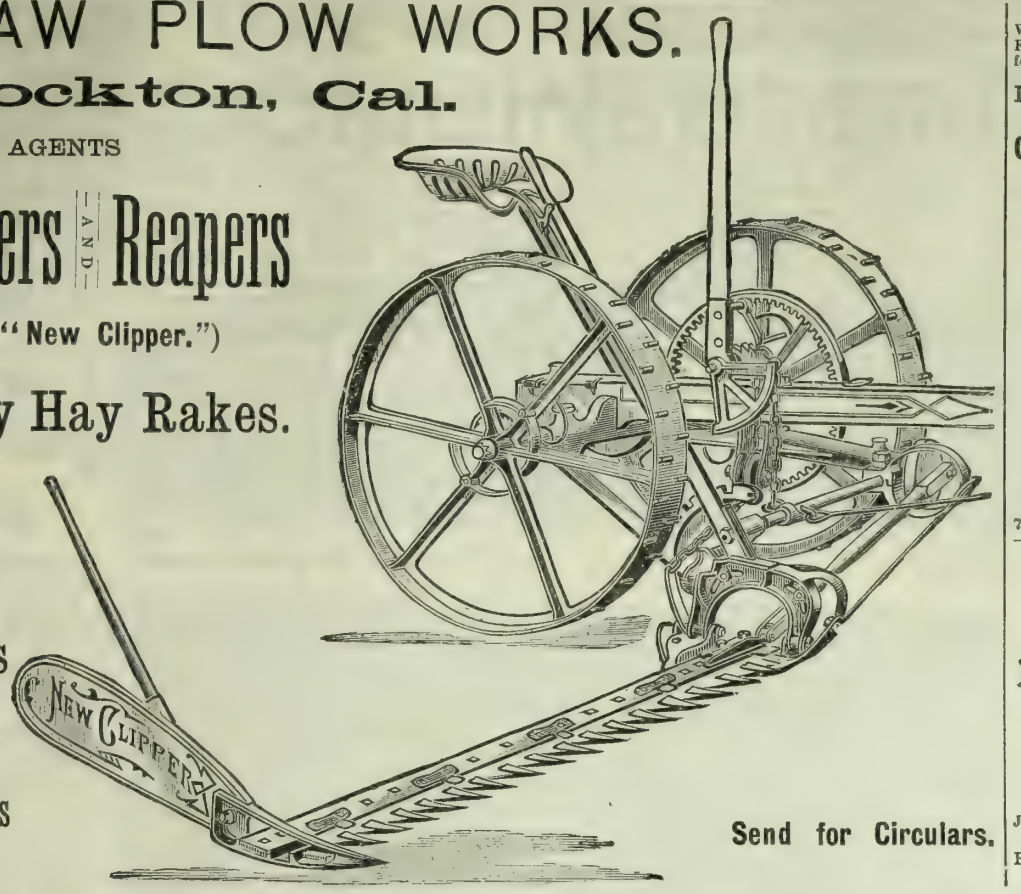
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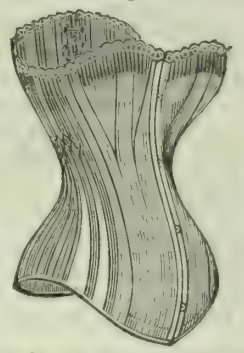


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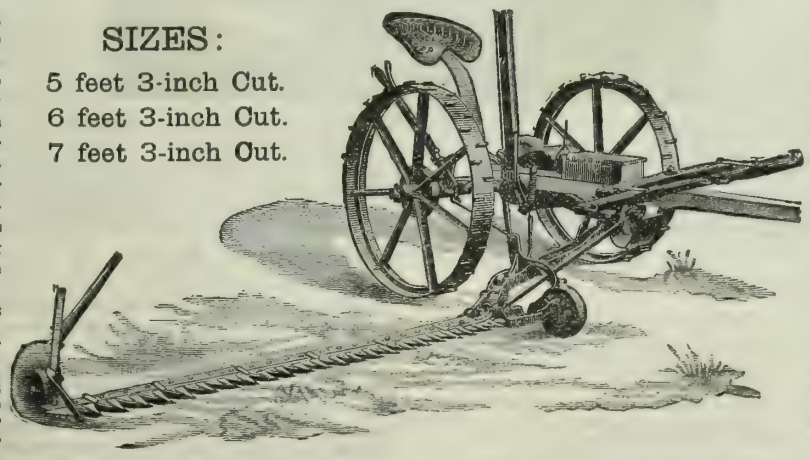
Intending purchasers of Mowers would consult their own interest by calling upon the local agent and examining into the merits of the "GIANT" before purchasing any other Mower. It is sold under a full guarantee, and intending purchasers are furnished the "GIANT" on Trial.

For doing an immense amount of cutting in a given time, and for leaving the grass in the very best shape for drying, the **Deering Front-Cut Giant Mower** has no equal. With its immense Cutter-Bar of 5 and 6 feet, it is well equipped to do almost **double** the amount of cutting that can be done by the common four-foot Mower, the only thing other factories have to offer to their customers. While the **Giant Mower** can do a giant's work, or about double that of the little Mowers, yet a team of ordinary horses draw it with ease day after day. In short, its draft is little if **any** greater than a common Mower. It is a continual source of wonder to farmers who see the **Giant** for the first time, how a Mower cutting such an **unusual** swath of 6 feet, can be pulled with so much ease by a small span of horses.

The whole secret of the wonderful light draft of the **Giant** Mower lies in the following four facts:

1st, and most important: The Cutter-Bar is supported by a strong **steel** spiral spring, so that the Bar does not rest heavily upon the ground, nor drag with all its heavy weight upon the ground. If it be borne in mind that about 40 per cent of the draft of a common Mower is caused by the dragging of the Cutter-Bar upon the ground, it will be no cause of wonder that the **Giant,** by saving this loss of power,

SIZES:
5 feet 3-inch Cut.
6 feet 3-inch Cut.
7 feet 3-inch Cut.



can turn it to cutting almost double the width of swath done by an ordinary Mower. In addition to the economy of power, there are some incidental advantages. It is free from side-draft. There can be no side-draft if the Cutter-Bar does not drag upon the ground. Another advantage had by having a supporting spring, is that the driver is assisted in lifting the Bar by the spring. Still another advantage is the increased traction gained by throwing the weight of the Bar and Drag-Bar upon the wheels.

2nd. The **GIANT** pulls easy, because of its **High Drive Wheels.**

3rd. It pulls easy because of its **large** and perfect-fitting **gears.** In the Giant there is no gear-cutting nor gear-grinding. Every part fits perfectly.

4th. It pulls easy because the shafts are small where they enter their bearings.

We feel a just pride in the **Front-Cut Giant** for the remarkable record it has made since its first introduction. Every farmer who has written us speaks enthusiastically of its wonderful cutting powers, its light draft for two horses, and its freedom from side-draft.

The advantage of course in buying a Giant is **Economy.**

Ask the Deering Agent in your town, or address us for Special Circulars describing our machines in detail, with Illustrations.

M. K. LAUDEN, General Agent,

Warehouse, 1021 to 1027 Bryant St., SAN FRANCISCO, CAL.

L. M. CUTTING. FRANCIS CUTTING.

L. M. CUTTING & SON,

REAL ESTATE, STOCK AND MONEY BROKERS.

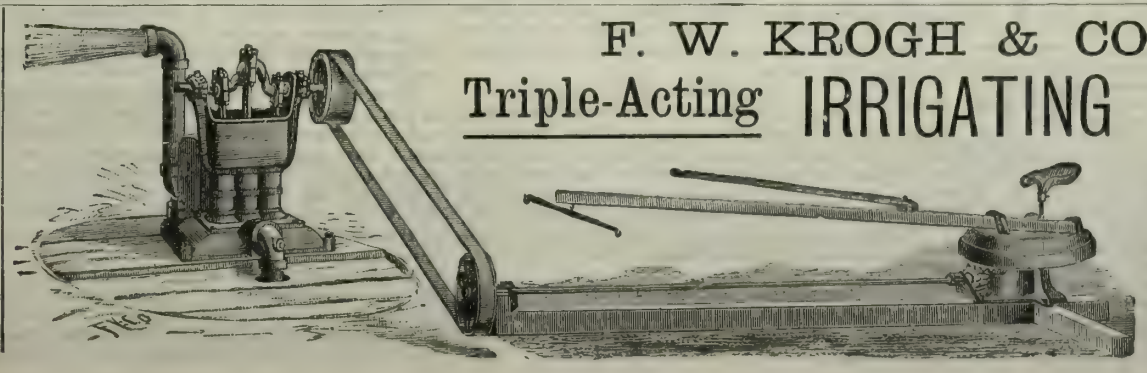
Fire, Marine, Life and Accident Insurance Agents.

AGENTS FOR THE

"WEBER ESTATE LANDS."

☞Large and small tracts of land for sale on easy terms. Correspondence solicited.

OFFICE, Masonic Temple, Stockton, Cal.



F. W. KROGH & CO.'S
Triple-Acting IRRIGATING PUMP.

There is no Pump in the market that will raise as much water, work as easy, with so little power, and at so small a cost, as this Pump. Send for descriptive Catalogue and prices to

F. W. KROGH & CO.,
51 Beale St., S. F.

PUBLIC AFFAIRS.

A Friend of Honest Revenues.

Ringing Utterance by Governor Zulick, of Arizona.

Now that the lottery abomination is wielding such sway in private affairs, it is encouraging to see it trampled upon by those in authority. Propositions to increase State revenues in certain directions, by lottery schemes, are receiving the quietus which they deserve. Last month the Territory of Arizona was saved from shame by a heroic veto by Governor Zulick, and since then Nevada has profited by the lesson and decided against a State lottery scheme. The veto message by Governor Zulick is such a forcible arraignment of the lottery evil that we present it in full, and accompany it by a portrait of the man who has done such valuable public service. The portrait was made by our new process from a recent photograph, and is, we trust, a good likeness.

Gov. Zulick's Veto Message.

EXECUTIVE DEPARTMENT,
OFFICE OF THE GOVERNOR,
PRESCOTT, ARIZONA, March, 1887.

To the Council:

I return herewith to the Council, in which it originated, Council Bill No. 60, entitled "An Act to provide for increasing the revenue of the Territory of Arizona and increasing the public-school fund," with my objections thereto. By the provisions of this Act a special gaming corporation is legalized whose business is to distribute prizes by a game of chance, to be conducted under the supervision and guarantee of the Territory, part of the net profits arising therefrom to be appropriated to the public-school fund and the erection of public buildings, the balance of net profits to accrue to the individual stockholders of the corporation.

The Act is artfully designed, with attractive features for replenishing a depleted public treasury, and is fashioned after that system of lotteries which has been employed at some period of the history of almost all modern States as a means of revenue, and in some European States is still preserved.

The friends of the measure defend it by argument that as the insatiable passion for play is so universal among the people, it is but wise to retain the money at home, which otherwise would be invested in foreign lotteries, and devote such parts of the profits as is provided by the Act to the public welfare of the Territory.

The force of this reasoning is not sufficient to overcome my objection to this enactment. The policy of our lawmakers in my judgment should be directed against promoting such a passion for gaming, if, as is claimed, it so generally exists (which I am not willing to admit), rather than to foster and encourage it by legal license. Such a system of laws has in the past exerted an unhealthful influence upon public morals. The strength and only safe foundation upon which to build good government is public morality. The homes of our land, the symmetrical beauty of the family relations, and the purity of society, all rest upon the solid basis of personal morality. Equally necessary is it that there should be as elevated a moral standard in the State as in the home, the family and society; all alike conduce to the public weal.

Better, far better that the public schools of the Territory be closed, and each mother in her home, sparing time from her domestic cares and labors, gather her children around her knee and educate them as best she can, than we should engraft into our laws a system of gambling out of the proceeds of which to build up a fund to educate the youth of our land. No such alternative, however, is necessary. Our public-school system is good. In our cities and towns and in every valley, and on every mesa within the limits of our Territory, schoolhouses are dotted, and the benefits of a public-school education are open to all. Why, then, should we resort to such an unnecessary and questionable expedient? The children of to-day, the men and women of the future, soon to take our places and be the intelligent factors to carry on our system of good government, and assume the cares and responsibilities of American citizenship, can more safely and intelligently acquire knowledge through a system of free public schools supported by the honest contributions of a willing people, than out of a fund gathered from the profits of a game of chance.

The evil effects of such a pernicious system must of necessity be early instilled into the minds of our youths, ay, even in the very schoolroom, where taught as they must be, if taught truthfully, that their own education was procured by and through the agency of and profits from a gambling corporation authorized by law. The public-school system of Arizona is now our pride. I am unwilling by any official act of mine to mar its strength, to destroy its moral efficiency or cloud its fair name by surrounding it with such immoral agencies of support.

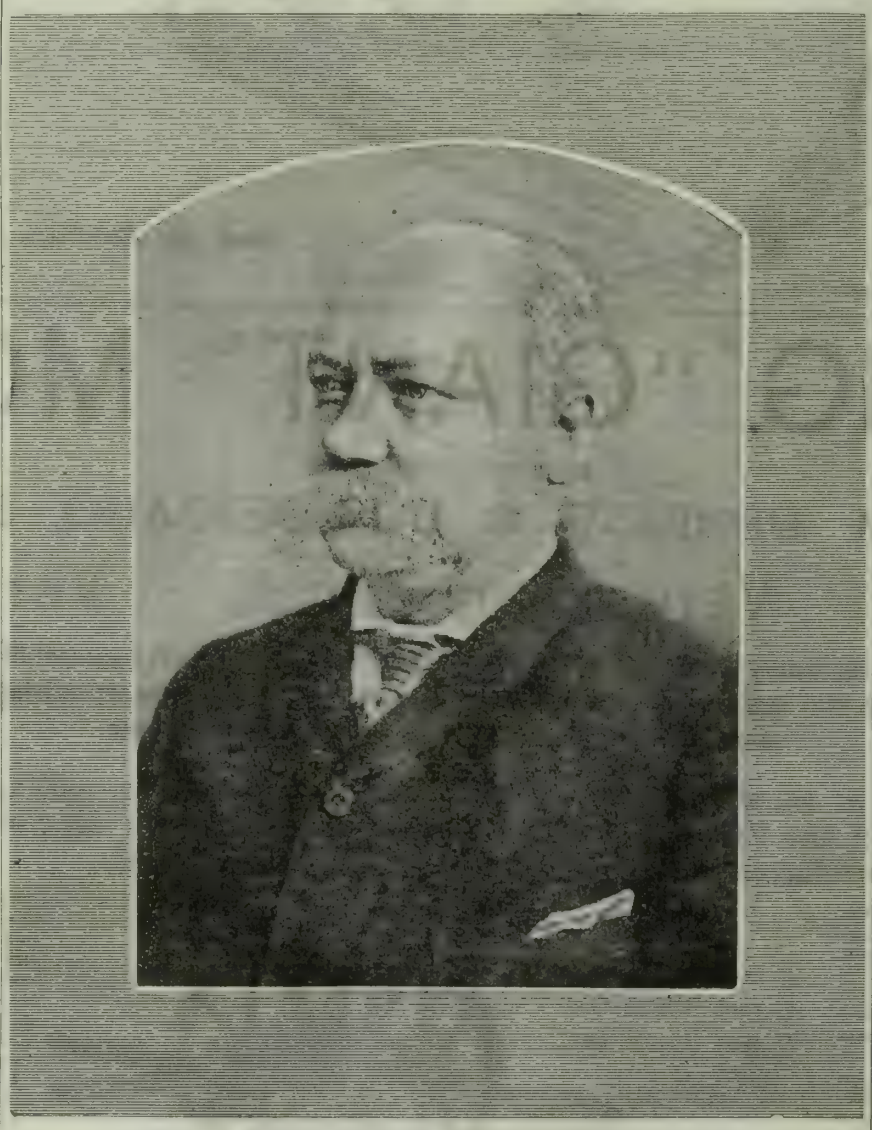
Whose money will seek investment and build up the immense profits flowing from this lottery scheme? It will be the hard-earned money of the poor; not that of the opulent. By the hope of sudden wealth, prompted by the chances of "a lucky strike," hundreds of thousands of dollars will be diverted from the wages of patient thrift and daily labor. Who will prove the gainer? The treasury by a small tithe, and the fortunate stockholders the enormous balance, with an occasional contribution to the holder of a "lucky number," whose thirst for investment is only thereby increased. Who will prove the losers? Necessarily that class of people who of all in the community can least afford it.

During a period of 12 years the French Government derived from its lottery system an annual income of 14,000,000 francs, yet one year after its suppression the savings banks of Paris showed an increase of deposits of 525,000 francs. England abolished the system years ago, on account of the evils attending it. Public sentiment in nearly every one of the United States to-day is arrayed against the system, and it is prohibited by law and made a penal offense to even vend a ticket or device which has the attributes or elements of a lottery. In very many of the States, the Constitutions absolutely prohibit the Legislature to authorize lotteries. Advanced civilization all over the world has condemned the system as working a mischievous influence upon society.

The Federal statutes expressly prohibit special legislation in the Territory, "granting to any corporation, association, or individual any special or exclusive privilege, immunity or franchise whatever." What is an exclusive privilege or franchise if this is not? Can any but one corporation enjoy the benefits accruing from this franchise? Strictly speaking, a special law is such as is confined in its application to a limited number, and a general law is such as is universal in its application. Does not this Act clearly fall within the inhibitions of special legislation, inasmuch as the exclusive privilege of filing incorporation papers, and the benefits accruing from the same, are restricted to the special corporation organized under authority of this Act? Applying the universally accepted doctrine of legal construction, I think there can be no question that this Act belongs to the class of special legislation, and is prohibited by Federal statutes.

Believing it to be in conflict with what is known as the Harrison Act, and being unwilling to aid in the legalization of a gambling scheme, by which the earnings of men, women and even children can be seduced to investment in lottery tickets, to build up the fortunes of a few interested stockholders at the expense of public morals, under the pretext of replenishing the public-school fund; preferring that our public schools in the future, as in the past, should be maintained by the free, honest offerings of the people, rather than our children should be educated from the overflowing profits of a system of legalized gambling, which, in my judgment, is subversive of every sense of political morality, I cannot but decline to sign this Act. If it becomes a law, it must be by force of that majority vote in the Legislative Assembly provided by law as necessary to overcome refusal of Executive sanction.

C. MEYER ZULICK, Governor.



HON. C. MEYER ZULICK, GOVERNOR OF ARIZONA.

The Mojave Desert.

EDITORS PRESS:—Will you please state in what part of California the "Mojave desert" is located? MANY READERS, *Centerville, Alameda Co., April 30th.*

The Mojave desert includes most of San Bernardino county, lying north of the San Bernardino range, in the regions round about the Mojave river. On its western border it extends a little way into Los Angeles and Kern counties. —EDS. PRESS.

OREGON LAND OPEN.—The acting Secretary of the Interior has approved the decision of the Commissioner of the General Land Office, holding the triangular body of land embracing some 200,000 acres, lying northeast of the unforfeited grant to the Oregon Central Railway Co. and lying along the line of the forfeited portion, to be public lands and subject to entry.

THE railroad tracklayers have reached San Buenaventura, and on the night of April 28th the construction train stood inside the town limits.

THE APIARY.

Honey Interest of Los Angeles County.

C. N. Wilson writes for the Los Angeles Board of Trade pamphlet as follows: It would be no easy matter to find within the limits of the United States a section of country better adapted to bee-keeping than can be found in Los Angeles county—the extensive mountain ranges to be met with on every hand, and the indigenous trees, shrubs and flowering plants, the bloom of which furnishes a nectar that produces a perfect honey, rich and pleasant in flavor, clear and light in color, and when properly handled by the bee-master, possessing a body and keeping qualities that stamp the product as the best honey in the world.

These mountain regions can never to any extent be converted into orchards, vineyards, cultivated fields or pasture lands, and unless utilized as bee pastures would add but little to the wealth of the country * * * The honey-bee gathers the nectar that would otherwise be wasted by the wild winds, and fits it for the use of man. A luxury for the rich, but cheaper and better than beer for the poor man and his family.

In this land of sunshine there is not on an average two weeks out of the 52 in the year that the honey-bee is not on the wing and storing honey, unless it be one of those occasional rainless years when the bloom is cut short for want of sufficient moisture. Honey-bees were not to be found in California until after the Americans acquired the country. To O. W. Childs belongs the honor of introducing the first bees into Los Angeles county in 1855. He bought some in San Francisco, paying for them the round price of $100 gold coin per colony. He placed them in his nursery on Main street, near his present residence, and they soon gave him large quantities of comb-honey, that he sold readily at $1 per pound. His success soon induced others to embark in the business, and quite extensive apiaries were established at different points in the county within a period of two or three years.

There are to-day about 20,000 hives of bees in Los Angeles county, and the most extensive and profitable apiaries are found in the mountains. Los Angeles city has an ordinance imposing a fine of $500 upon any one keeping bees within the city limits. Winemakers object to bees because they gather about the wine presses in the buildings used for winemaking, so that they annoy the workmen.

The average yield of honey per hive is about 260 pounds for the season. Much larger yields are reported from single hives, but in any very large apiary there is always found some hives that are poor honey-producers, and thus the average yield is reduced. The production of beeswax is very large, being much in excess of what it is in the Eastern States per hive. The greater part of the honey produced in Los Angeles county is extracted by centrifugal force from the honey-comb; they are then replaced in the hives and filled with honey again and again by the bees. The extracted honey is put up in tin cans holding about 60 pounds. Two of these cans are put in cases, such as are used for shipping refined petroleum, and in this shape the bulk of the honey yielded is shipped by rail or water either to the Eastern cities or to England. The price of honey is lower just now in Los Angeles than it has ever been before, but it holds its own with other goods in the markets. No doubt the very low price of sugar has some influence on the price of honey.

Of one thing Los Angeles county is assured—that for all coming time her mountains can produce bee pasturage that will yield a nectar unsurpassed in flavor, in color and in body, when converted into either extracted or comb-honey.

The Coming State Fair.

It is announced from Sacramento that the State Board of Agriculture has made a number of important changes in the premium list for this year's State Fair, and many of them will be warmly commended by exhibitors and the public. The following is an outline of the changes:

All animals in the roadster class, two years old and over, must be shown in harness. The same rule applies to standard trotters.

Three additional prizes will be offered for mules.

The number of cattle exhibited by one breeder must not exceed 25 head in each class. Two prizes are offered for milch cows.

Merino sheep will be classed as French and Spanish, and four cash prizes offered for each.

In the goat department second prizes, half of first, are offered in each class.

A special premium is offered for carrier pigeons to take flight from the park. Several additional cash prizes are made in the mechanical departments.

The Third Department remains the same as last year. Several additional premiums were given for Berkshires.

For the best and largest display of grain in the sheaf, not less than 40 sheaves and 10 varieties of grain, sheaves to be not less than 10 inches in diameter—first premium, $40; second, $20; third, $10. It is not incumbent on exhibitor to raise this grain, but he will be required to name locality and grower of each variety.

The county exhibits will remain as they were last year.

Fruit and vegetables must be named by variety, and enter not later than Tuesday, the 13th of September. Exhibitors will be allowed to replenish with fresh fruit of the same variety up to Tuesday, September 19th.

Also, that as soon as the judges pass upon and award premiums, they shall attach ribbons. It was ordered to offer a grand medal, the cost to be $200, to the owners of the sire whose get shall make the best average performance in all colt stakes trotted at the fair this year; the title to the medal to be successfully defended for two succeeding years.

Upon motion of Director Green, it was resolved that the trotting races this season should be governed by the American rules, instead of those of the National Association, as heretofore.

The superintendents were named as follows: Park and stock grounds, Christopher Green; thoroughbred horses, Hancock and Singletery; horses of all work and draft horses, Finigan and Singletery; roadsters, Singletery and Green; standard trotters, Hancock and Chase; to segregate standard trotters, Green and Hancock; saddle horses, Finigan and Singletery; sweepstakes, Singletery, Shippee and Cox; cattle, Carr and Cox; sheep, Green and Hancock; Angora goats, swine and poultry, Hancock and Chase; pavilion, La Rue, except the art gallery, which will be under the superintendency of Norton Bush.

Snug Little Fortunes

May be had by all who are sufficiently intelligent and enterprising to embrace the opportunities which occasionally are offered them. Hallett & Co., Portland, Maine, have something new to offer in the line of work which you can do for them, and live at home, wherever you are located. Profits immense and every worker is sure of over $5 a day; several have made over $50 in a single day. All ages; both sexes. Capital not required; you are started free; all particulars free. You had better write to them at once.

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

First-Class Mowing Machine for Sale.

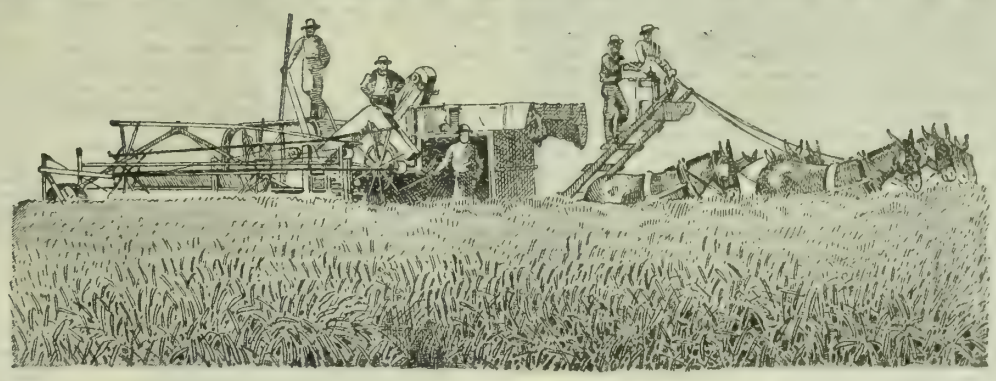
A brand-new mower of well-known make can be obtained cheap for cash by addressing D. F., Box 2361, San Francisco, Cal.

THE IMPROVED LINK AND V-BELT COMBINED HARVESTER!

Manufactured by

The Stockton Wheel Co.,

STOCKTON, CAL.



For further information and Price Lists address STOCKTON WHEEL CO., STOCKTON, CAL., or the undersigned, importers of

Wagon & Carriage Materials and Hardware.

HOLT BROTHERS,
30 and 32 Main St.,
SAN FRANCISCO.

Our Improved Harvester will, without question or doubt, be the most popular machine in the grain field this year, as it certainly was last year, wherever used. Everybody who saw it working in the grain, running over rough ground, through hog wallows, over fields studded with trees, with as much ease and regularity as though the fields were smooth and level. Read the testimonials of several farmers who used our Harvester last year.

We have improved our machines over last year very materially, strengthening the weak points by putting in additional truss-iron braces, increasing or lowering speed when required, shortening the chain belts and substituting pivot and sliding boxes for the old fashion solid boxes, which will not give a particle as the frame warps or twists out of line. The greatest and most desirable change we make this year is discarding the sleeve on the main shaft, which caused us more trouble last year than anything else, by sticking to the shaft, making it grind the shaft and run hard. In a few weeks' time it wore away, leaving it rickety and causing the cylinder to run unsteady. This most desirable improvement makes it run one horse lighter at least.

Some of the agents of other manufacturers have sought to frighten farmers into buying their machines by telling them if they buy our Improved Harvester that they are liable to be prosecuted for infringement of patents. Now, these agents know, or if they don't know they ought to, that what they assert is false and malicious. Our Improvements are our own, and infringe upon nobody's patents. To allay all apprehension in the minds of intending purchasers, we say here that we will protect you against any and all losses on account of suits for infringements. The following are some of the advantages our Improved Harvester possesses over all others:

1. Our Improved Harvester runs FOUR horses lighter than any other machine made.
2. It is easily handled, and turns a square corner as readily as a mowing machine.
3. It is less liable to get out of order, and cheaper to keep in repair than any other machine.
4. It has no clumsy, expensive gearing to wear out or break.
5. It is run mostly by Link and V-Belts which, in case of breakage or accident, can be repaired in the field without loss of time.
6. Our Harvester makes no noise to frighten or irritate the horses, and makes less noise than ordinary headers.
7. Our Header is far the simplest and runs the lightest, and is the strongest and best. There are no Rickety Gears or Trembling Rods to break.
8. The Header may be raised and lowered instantly from any part of the Separator.
9. Our Harvester WEIGHS FIFTEEN HUNDRED POUNDS LESS than any other machine of the same capacity in the market.
10. It will cut, thrash, clean and sack more grain in a season, with less expense for labor and repairs than any other Harvester ever turned out.

Remember, all our Improved Harvesters are warranted to work well or no pay. Examine them before purchasing elsewhere. We shall sell our Harvesters upon their merits alone.

TESTIMONIALS:

GRAYSON, CAL., Feb. 21, 1887.

MESSRS. HOLT BROS.—Dear Sirs: As to your machine, we think it a good one. It saved the grain well. Had but little lost time; as to expense, $25 would cover the whole for the entire season. Number of acres cut, 1750. If we were going to buy another, we should certainly get one of yours. Respectfully, F. CARPENTER, R. BROWN.

OAKDALE, Feb. 21, 1887.

MESSRS. HOLT BROS.—Gents: I ran one of your Combined Harvesters last year. Cut 1930 acres of grain in 63 days. Did not lose over one day making repairs and replacing extras. Repairs cost about $10. I cut both light and heavy grain. It did good work, and the grain brought the highest market price, on account of its being better cleaned. I am perfectly satisfied with my purchase. I have worked with three other Combined Harvesters, and consider yours the best in the field for lightness of draft, durability and fine work.

Respectfully yours, D. W. CARMICHAEL.

GRIDLEY STATION, Sept. 22, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: I have used one of Holt Brothers' Link Chain and V-Belt Combined Harvesters, and consider it (in my opinion) the best Harvester made. This season I harvested 800 acres; averaged 23 acres per day, with 12-foot cut. I consider the draft is four horses lighter than either the Houser or the Young Machine. does better in all kinds of grain than either of the above-named machines. I run the whole season without any breakage.

GEO. WICKMAN.

TURLOCK, Sept. 16, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: Your letter of the 8th inst. received and contents noted. In reply I will state that I think your machine is the best that is made. I cut 1350 acres of grain with it in 42 days. I did not have to repair the machine from the time I started till I quit running it. It runs lighter, and I think does the best work of any machine that I have seen. Very respectfully, ED. McCABE.

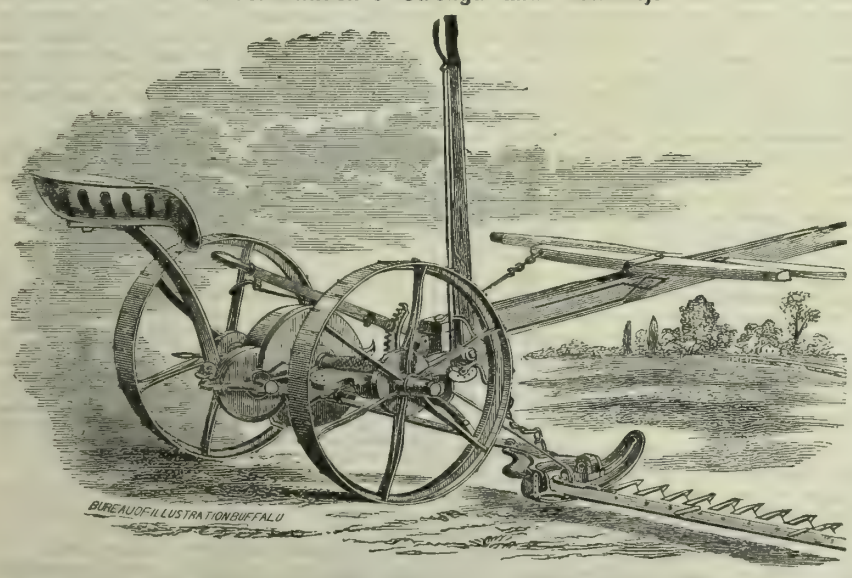
DIXON, Sept. 10, 1886.

MESSRS. HOLT BROS., San Francisco—Dear Sirs: Yours of Sept 8th at hand and contents noted. Will try to answer your questions as nearly correct as I can. Of course I have not seen all of the different Harvesters working, but from what I have seen and learned, will say that so far as my information and experience goes, your Link and V-Belt Harvester is, in all respects, the best in use. It did as good work, if not better work, than the Houser here. It pulls from two to four horses lighter than the Houser. My repairs were nothing; was not detained at all in my harvest on account of breakage. I cut 600 acres in 23 days, and moved four miles three different times. Yours truly, JOS. KLINE.

And Many Others.

THE EMPIRE SENIOR MOWER.

A Combination of Strength and Durability.

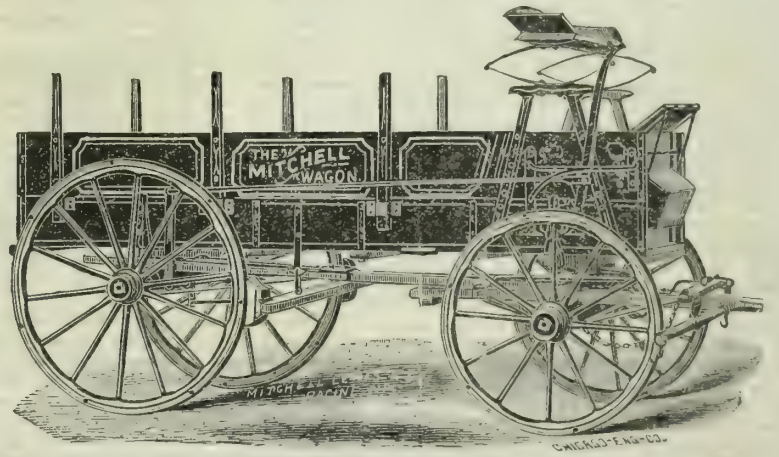


NO GRASS GROWS THAT IT WILL NOT CUT.

In any field, whether it be heavy matted clover, or the tangled and heavy grass of the roughest meadow lands, it will go through without choking down or causing the team to stop to clear the guards, or for any other purpose.

There is none more durable; none easier for team; none with a more perfect tilt; none with lighter draft; none will cut closer; none with better pitman connection; none more compact; none more perfect in every respect.

THE MITCHELL WAGON.



The Mitchell Wagon stands to-day at the head and front of all competitors, and is known far and wide as the strongest, most durable, best ironed, best finished and lightest running wagon made in the world. They are unequaled in quality and finish, and are "MONARCH" of the road wherever known and used; are fully warranted for one year—any breakage occasioned from defects in material or workmanship will be made good without cost to the purchaser, upon application to the undersigned, with satisfactory proof of such defects.

BUY THE MITCHELL WAGON AND HAVE NO OTHER.

S. S. BURGE, - General Agent,
No. 26 BEALE STREET, SAN FRANCISCO.

☞Send for Circulars and Price List, and where there is no Local Agent send orders direct.

Small Farms on Easy Installments.

GRAIN, FRUITS and VEGETABLES RAISED WITHOUT IRRIGATION.

A choice portion of the Reading Grant, two miles from the town of Reading, hitherto reserved for farming purposes, now divided into 20-acre lots and thrown open to purchasers. River bottom soil, sandy loam and very productive. Prices from $30 to $50 per acre. Other agricultural lands, in lots to suit purchasers, at from $10 to $25 per acre. For circulars and maps call on

FRISBIE & WILEY, Redding or Anderson, Shasta Co., Cal.

DEWEY & CO., { No. 250 MARKET ST / Elevator 12 Front St. } PATENT AGENTS.

ALLEGRETTI

Air-Purifier and Preserving-Room System.

ADAPTABLE to keep or transport all perishable articles in perfect condition. After 25 years of studying the various means of preservation for perishable articles, I have the honor to announce to the public that, having fully succeeded and completed my preserving process, I am now ready to build preserving rooms, either on a large or small scale. For further particulars address

I. ALLEGRETTI,
West Berkeley, Cal.

Postoffice Box P.

THE IRRIGATOR.

Reclaiming Land in California.

The Engines and Pumping Machinery Employed.

Up to a recent date the reclamation of swamp lands in California has been more or less of a failure; most of the early efforts in this direction were undertaken with a very slight knowledge of what was required, and the machinery used was inadequate. In fact the appliances were crude and the systems not of a character to insure success. The greatest difficulty met with was one that was not sufficiently recognized at first, and that was the seepage of water that comes through the best levees that can be constructed with the material at hand in the locations where the levees have to be built.

As a consequence, at various times, when crops inside these levees promised large yields, they were entirely destroyed by seepage water caused by high water outside the levee during the spring freshets. There is little difficulty in making the levees high and strong enough to withstand any pressure which is likely to ensue from freshets. This being accomplished, the only thing remaining to perfect a reclamation scheme is to take care of what water may seep through the levee and the rain-water that falls within the reclaimed area in the winter season. At that time, of course, the evaporation is hardly noticeable, and this water must be taken care of by other means.

Before attempting to explain the methods which have been adopted to take care of the seepage-water in various districts, it might be well to enumerate a few of the advantages which reclaimed lands have over the irrigated lands of the State. 1st. The lands are superior in quality. 2d. The land will, in many cases, yield from two to three crops a year. 3d. It is in all cases, at present, arranged so that it can be irrigated if necessary, as the land lies below the surface of the outside water; therefore, by means of iron pipes with gates, it can be irrigated at will. On the other hand, when lifting the surplus water from the land, it can be kept at the most suitable distance from the surface of the land, thus insuring a full crop every year. As to the cost of reclaiming land, it of course depends on the conditions, of amount of area, length of levee, etc. The cost is from $20 to $50 per acre, according to size of district and character of levee.

The cost of this land before reclaiming, in most instances, is $4 per acre or thereabouts, and after being reclaimed, sells readily at from $100 to $1000 per acre. In instances where the land has been properly reclaimed and set out in orchards, prices as high as $1000 per acre have been offered.

The lands which have been reclaimed are mainly in Sacramento, San Joaquin and Colusa counties and near Stockton. It has been found from experience that it is not practicable to reclaim lands west of Collinsville, as is shown by the failure in reclaiming Sherman island, the failure being caused by the hardpan being so far from the surface that it was found to be utterly impossible to build a levee that would not sink. The condition of the islands further to the eastward, along the banks of the Sacramento and San Joaquin rivers, is different entirely from the Sherman, as we shall show further on in this article.

More recently, the conditions of the whole matter have been very much better understood, so that the difficulties which were met with in the earlier history of reclamation in this State have been obviated.

In 1881, the San Francisco Tool Company began to turn its attention to perfecting reclamation machinery and has since then paid special attention to the subject, and erected many successful plants. As a history of this company's work in this direction is, in a measure, a history of recent land reclamation in California, it will be well to follow it.

The first plant they erected (in 1881) was on Rough-and-Ready island, on the San Joaquin river. There they placed a 10-inch centrifugal pump. At the time this pump was put in there had been a break in the levee, and the island had been completely inundated. The island was pumped out at a cost of $1.50 per acre, and the whole finally reclaimed, making the land worth, after reclamation, from $150 to $400 per acre, while, without the pump, it could not have been successfully cultivated. It may be added here that this pumping was done with a 20-horse power thrashing engine, which, during the summer, was utilized for harvesting purposes. It was found by experience that it was too expensive to continue pumping with the thrashing engine, and eventually a 15-inch pump was put in, with suitable horizontal boiler and a single-acting engine of the San Francisco Tool Company. Some of this land has recently been sold for $400 per acre.

The Pearson Reclamation District, near Courtland, Sacramento county, is a notable instance of the value and success of the appliances adopted. In the first place, the Tool Company put in a 10 inch pump, which was afterward replaced by a 12-inch one. Then a 15-inch pump was added. In their contract with the San Francisco Savings Union, they guaranteed the 15-inch Gwynne pump, together with the 12-inch turbine, to raise at least 10,000 gallons of water with an indicated 40-horse power against a head of 10 feet. The results of accurate measurements, made by a thoroughly competent engineer, showed that with only 88 revolutions of the engine, or 264 revolutions of the 15-inch pump, and 234 revolutions of the 12-inch pump, they were able to raise 16,000 gallons per minute, with an indicated horse-power of about 50 against a head ranging from 9 to 14 feet. The average daily consumption of coal was 3750 pounds of South Prairie screenings for a run of 24 hours. After awhile the 12-inch pump was replaced by another 15-inch one, and there then was added a 30-inch siphon centrifugal pump. Then later on there was added to this another 30-inch pump, making two 30-inch pumps and two 15-inch pumps, having a capacity of 100,000 gallons per minute, which is equal to a stream 38 feet wide, 7 feet deep, and running 50 feet per minute.

This siphon centrifugal pump is now adopted in all large reclamation districts in Europe to the almost entire exclusion of other systems. Its main features are: The siphon action preventing the pump from at any time raising the water higher than the exact difference between the two water levels; the connecting of the runner of the pump in a direct manner to the main shaft of the engine on a level above any possible flood-water; the discharge pipe conducted over the levee down to a point below the lowest possible low-water mark of the outside stream. No foot or discharge valves of any kind are used, thus avoiding all friction inevitably caused by valves. The pump is charged by means of the vacuum created by the condenser. When the pump is stopped, a water-gate placed at the discharge of the pump, prevents the outside water from siphoning over the levee into the district; the pump in the meanwhile remains charged or primed. Large hand-plates in the side facilitate the examination and cleaning of the runner. The pump is connected directly to a compound condensing engine with variable expansion gear. The diameter of the high and low pressure cylinders, 14 inches and 26 inches respectively. The stroke is 18 inches; the number of revolutions is from 130 to 210 per minute, according to the hight the water is to be raised or the quantity desired to be discharged under any given circumstances—which can be increased from a minimum of say 10,000 gallons per minute to a maximum of 60,000 gallons per minute. The diameter of the discharge pipe was increased from 30 inches to 40 inches immediately after leaving the pump, and that of the suction pipes from 23 inches to 28 inches, insuring a minimum of friction (9⅛ feet per second, discharging 38,000 gallons per minute), which will greatly save in running expenses the slight excess of first cost incurred. The average of several tests, conducted personally by the agent of the Reclamation Company, showed its capacity to be 37,907 gallons per minute at a lift of 11 feet 7 inches, the engine indicating 156-horse power, with a consumption of 4.4 pounds average Sydney coal per actual horse-power of water raised per hour, the most satisfactory and economical showing so far made by any pumping plant.

This district was at first in the hands of Mr. Pearson, after whom it was named, but finally came into the hands of Mr. P. J. Van Loben Sels, at a time when it was really worth about $3 per acre, there being about 9000 acres in the tract, surrounded by a dike or levee 15½ miles long. The pumping appliances made by the Tool Company were erected under the supervision of Mr. P. J. Van Loben Sels, to whom the success of the Pearson reclamation district is largely due. He was very energetic and untiring in his efforts to carry out the plans, and was confident of ultimate success.

The whole island is now under cultivation, and the land is worth all the way from $100 to $150 per acre, and in some places more, where improvements have been made. This pumping machinery is only run during the winter months, and in ordinary years, the two 15-inch pumps will take care of this district, the large 30 inch pumps only being used as a precaution against rains and freshets. This is the largest reclamation plant in the United States.

"Andrus Island."

At Andrus island (Reclamation District No. 407) a ten-inch turbine was at first put in. When it was put in operation in May, 1884, there were from 800 to 1000 acres of tule land under water, varying in depth from a few inches to four feet. This water was all pumped out in two months, and in October a crop of buckwheat and beans was being harvested from land which was three feet under water in May. Since then they have made a change and replaced this pumping plant with two 16-inch submerged pumps and one compound condensing engine, with suitable condensing apparatus and boiler capacity to raise 33,000 gallons of water per minute. This has all been done under the supervision of J. C. Pierson, C. E. of Sacramento, and chief engineer of Reclamation District No. 407.

The fourth plant is on the land of Geo. F. Smith, at the edge of the river near Stockton. It is a submerged centrifugal pump, plain slide valve engine, with a suitable boiler, with a capacity of 11,000 gallons per minute. The plant is highly successful, and keeps the land free from water.

The fifth is on what is known as Dr. Toland's ranch, near Rio Vista, where a submerged pump with a 50-horse power, single-acting engine and boiler, was put in under the supervision of E. C. Dozier, the capacity of this plant being 15,000 gallons per minute.

The sixth is on Tyler island, near Walnut Grove, for John Miller. That is a submerged pump, a compound condensing engine with the necessary condensing apparatus, with a capacity of 36,000 gallons per minute.

Those desirous of resorting to the use of pumps for the reclamation of land are referred to the Pearson Reclamation District, Tyler island, and District 407, Andrus island, as being three of the best reclamation pumping plants ever erected so far in this country. Mr. J. C. Pierson, C. E., who has devoted most of his time for the last five years to the construction of levees, etc., was the engineer in charge of putting the pumping machinery on Andrus and Tyler islands.

It will be seen from what we have said that the engineering problems connected with the reclamation projects in California were by no means simple. The San Francisco Tool Company having had great experience in the construction of the drainage machinery, now know exactly what is required in special cases. Of course we have only mentioned a few of the plants constructed by this company. At the Pearson district and Tyler island, especial pains were taken to put up suitable buildings for pumping stations.

Floral Awards at Oakland.

Mr. Bentley, manager of the recent Fruit and Flower Fair at Oakland, has sent us the following correction:

OAKLAND, CAL., April 29, 1887.

EDITORS PRESS:—On page 389, issue of April 30th, you state that Miss Lizzie Jean Blair and O. Holen, a retired florist, competed for a $10 prize, offered by me for the largest floral piece, etc., and that the award was made to O. Holen. I desire to correct this statement.

It is true that $10 was offered for the largest and finest flower piece, containing not less than 20 varieties of flowers exhibited on a base not less than three feet high. The committee, composed of Mr. A. D. Thomson, Mr. W. W. Garthwaite, and Mr. C. E. Palmer, after due inquiry, found only one flower piece complying with all the conditions stipulated, which was that of P. J. Keller—and awarded him the prize.

Neither Mr. Holen nor Miss Blair was known to me as competitors for that or any other prize. Miss Blair made a very creditable exhibit, and her efforts to add to the interest of the Flower Fair were duly appreciated. As for O. Holen—I was led to suppose that the star spoken of was exhibited by Mr. R. Turnbull, florist, and did not know to the contrary until after the award had been made. Then, upon entering the hall, I found that some one had been there and removed the star. Upon inquiry learned that O. Holen had carried it off, being greatly displeased because the award was not made for the piece, which I then learned was made by him, out of Mr. Turnbull's flowers.

It is only fair that the truth be made known. For my part, under existing circumstances, I am not willing that any one should think that Holen received an award, nor that the committee erred in judgment. WM. R. BENTLEY, Manager.

TIMBER STEALERS DEFIANT.—In the far West the timber thieves don't like to have the little game they have been playing so long interfered with. Here is the way one firm advertises in a Colorado paper: "We are no rabbits. This is to certify that we are at the old stand, and no son of a gun of a special agent is going to swoop round our ranch. We buy Winchesters for cash and sell all kinds of lumber on time. Our mill is still running up in the La Sals, and our prices are neither higher nor lower than they were before William Andrew Jackson Sparks and his henchmen undertook to reform everything from hell to breakfast. Come and see us. Our pine is on the Mesa and our mill is on the make." It is barely possible that this bluff may land the "We" firm in the penitentiary, where they belong. The timber thieves have been having a high old time for many years and they hate to be interfered with. William Andrew Jackson Sparks takes a different view of public stealing.—*San Diegan.*

TAME ELK.—The Ogden *News* of April 11th says that the U. P. train the evening before brought in two elk—a bull and a cow—consigned to H. A. Clawson, of the Depot hotel. They were fine specimens of their kind and perfectly domesticated. Col. F. F. Obiston, of Idaho Springs, Col., presented them to his friend Clawson, with the understanding that he would take good care of and not dispose of them. They were forwarded to the Humboldt house to be kept there. The weight of the bull was 650 and of the cow 510 pounds. They will prove a great attraction to overland tourists who stop at Humboldt.

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BERKSHIRE SALE.—The last list of transfers of registered Berkshires (which we receive from the secretary, Phil. M. Springer, of Springfield, Ill.,) includes mention of the sale of Elmwood Duke XIX, 13,411, by Wm. Corbett, of San Mateo, to Senator Leland Stanford.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING APRIL 26, 1887.

361,810.—DOOR—M. P. Burk, Prescott, W. T.
361,692.—JOINTER FOR ARTIFICIAL STONE WORK—Geo. F. Gray, S. F.
361,763.—WHIP—L. F. Herrick, Oakland, Cal.
361,719.—WATER-WHEEL BUCKET—H. & W. J. Richards, Jr., Nevada City, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS U. S. and Foreign Patent Agency, the following are worthy of special mention:

SULPHUR SPRINKLER.—John Fatjo, Santa Clara. No. 360,571. Dated April 5, 1887. This invention relates to a device for sprinkling sulphur upon vines, so as to protect them from the ravages of insects and parasites. It consists of a double conical vessel, the smaller portion of which is centrally located, one end being beveled and provided with a gauze or screen sprinkler, and the other end having a screw-cap through which the material may be introduced.

BEET-PULLER.—Robert R. Burrows, Potter Valley, Mendocino Co. No. 361,205. Dated April 12, 1887. This is a garden implement specially adapted for the pulling of those vegetables having roots or bulbs which grow in or partially in the ground, such as beets, turnips, carrots, etc. The invention consists in a handled blade adapted for gripping one side of the vegetable and a peculiarly curved fulcrum lever pivoted to the main handle or blade, and having a blade adapted for gripping and binding on the other side of the vegetable. The distinguishing feature of this implement lies in the employment of an ogee lever which enables its foot to act as a fulcrum, and concave blades adapted to enter the ground and grasp the root or vegetable.

GRAIN-DRIER.—Lewis Borland and T. J. Parsons, S. F. No. 361,126. Dated April 12, 1887. The grain is put in a garner or hopper, and thence passes down its throat, completely encircling the steam heater, so that in its passage it receives the necessary preliminary heat. The throat being perforated provides an escape for the heat so there will be no condensation and the grain will not be moist. The entire operation of the drier is automatic, there being no shoveling necessary. By the arrangement of hot air chambers the grain, as it passes the upper series, receives the heat directly on one side, and as it passes the lower series receives it directly on the other, so it never has to be turned.

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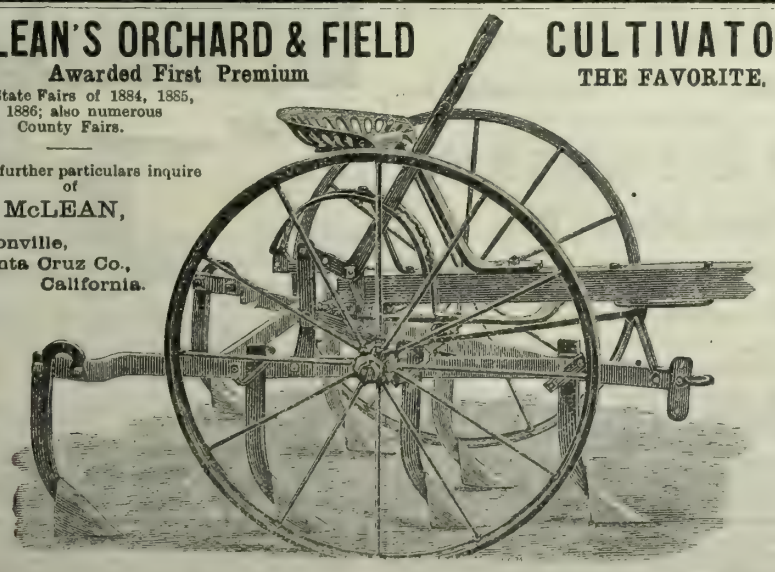
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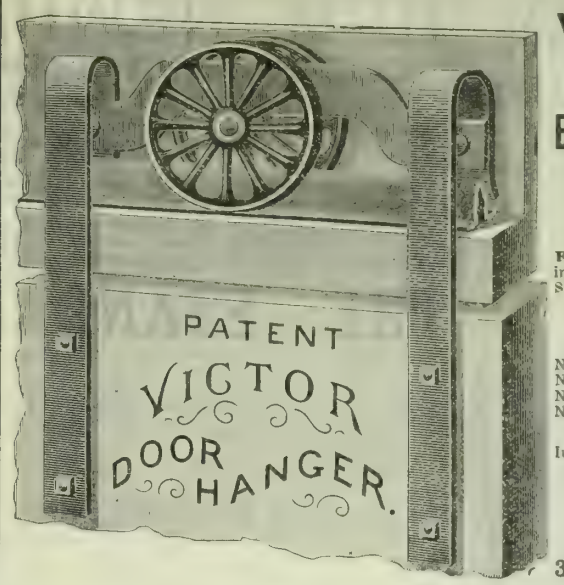
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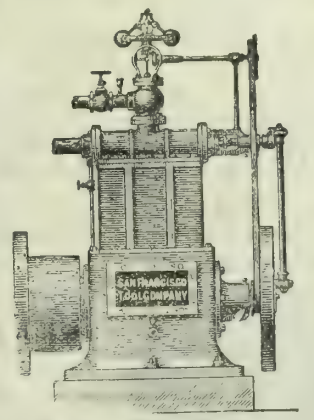
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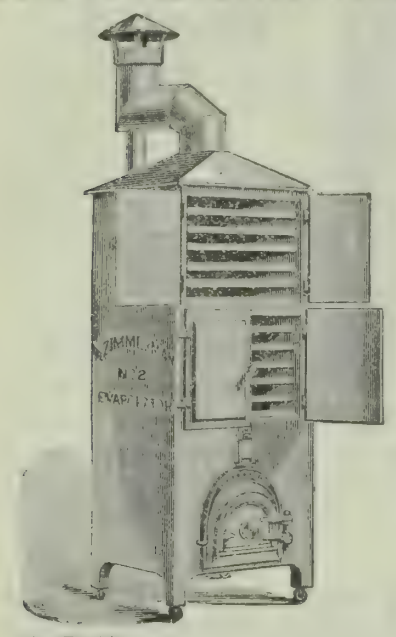
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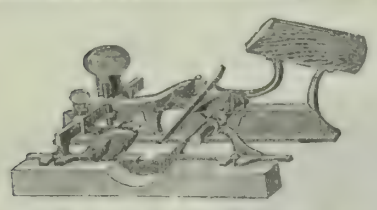
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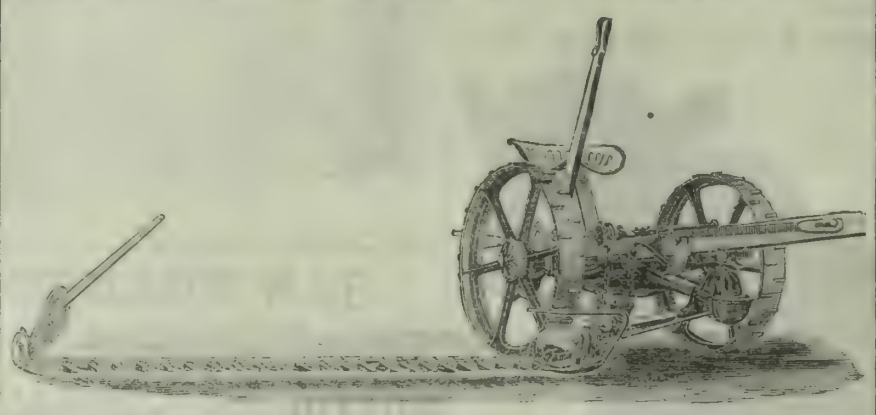
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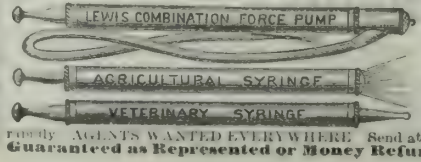
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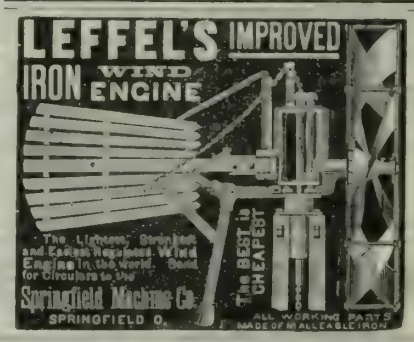
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I will ship, in localities where, as yet, I have NO AGENT, one sample No. 2 "New Becker" Washer, Improved Sept. 1, 1885, and "Empire" Wringer for trial; the party to pay for them at WHOLESALE prices and act as Agent, if found satisfactory; if not, RETURN them. Money refunded.

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HORICULTURE.

The Festival of Flowers.

"To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears."
So Wordsworth, Nature's lover, sung, and oft
Our hearts unconsciously have said "e'en so."
For flowers, like music, have a soul, a voice
To stir our better natures and awake
Our finer instincts to a quicker life.
Music, and love, and flowers, these three things
Hath Eden left us, and as there is not,
However low, a race in whom exists
No love of melody, no love of love,
So never yet, where blossoms bloom was found,
Be't black or yellow, brown or white or red,
A race all strangers to the love of flowers.
Arrayed in flowers, fair love is doubly fair,
Nor death, when flowers are near, seems wholly death;
The laughing infant with its sprig of bloom,
The maiden with the May-wreath on her brow,
The blushing bride with orange blossoms crowned,
The laureled victor and triumphal arch,
The sick-room fragrant with the violet's breath,
The hallowed altar and the unlovely tomb,
O'er all, in all, the sympathy of flowers.

The land of gold, and fruit, and flowers, and wine!
A festal week amid its orange groves!
The Angel City's Festival of Flowers!
Behold the temple reared to Flora filled
With floral offerings from every home!
Heaps, garlands, wreaths, bouquets and long festoons,
Flowers overhead, flowers trampled underfoot,
Yet breathing still sweet fragrance as they die!
Here, from a bank of roses, leaps to light
A tinkling fountain, filling with its spray
Of flashing gems the alabaster cups
Of stately lilies, that o'erflow their wealth
Upon the modest violets below.
There, formed of roses, hangs a floral harp,
Such as, when hung where wanton breezes blow,
Makes perfumed music, and again a sward
Of daisies, pansies fit for Cupid's bed.
Here orange blossoms mix their honeyed breath
With oleander, fuchsia, heliotrope,
Verbena, honeysuckle, mignonette,
While, intermingled like a florist's dream,
Palm, pepper trees and feathery pampas plumes,
The rubber tree, with glossy, shield-like leaves,
Pinks, peonies, carnations, prickly pears,
Sea-mosses, ferns and rare Pacific shells,
And there a floral rainbow spans the scene!
And ever and anon the swell and throb
Of music trembles on the fragrant air,
And bright-eyed beauty, lovelier than the buds
Upon its bosom, mingles in the scene,
Till one is dazed by all the shifting sounds
And scents and scenes of music, flowers and love,
Like some one lost in a midsummer's dream.

All hail! thou floral goddess; here abide
Amid our fountains and our orange-groves.
Dwell thou with us in this, the Western Greece,
In this, the glad age of our golden land.

—*Frank Borton, in Los Angeles Times.*

A Rose Fair in San Francisco.

A floral exhibition in aid of the Women's Exchange was given in this city by benevolent ladies, April 28th to 30th, in the new Union Club building, and proved so attractive and successful that it was prolonged through Sunday and up to Tuesday evening of the present week.

The object of the Women's Exchange is to enable women, who are striving to support themselves, to dispose of their handiwork in a quiet way, at fair prices. When it was first established, some two years ago, plain and fancy needlework, knit goods and the like were placed on sale; but of late the business has run more to nicely prepared edibles, and the need of larger accommodations has become pressing. To raise funds whereby the institution may be moved into ample and commodious quarters was the good purpose of the late display; and the proprietors of the new club-house gave it a noble christening when they loaned the store on the ground floor at Post and Stockton streets to so kindly an undertaking.

Florists, nurserymen and owners of private conservatories and flower-gardens, both in S. F. and adjacent counties, were generous in assistance, and the devoted labors of Mrs. John F. Swift, Mrs. Dr. Keeney, Dr. C. B. Brigham and their many helpers brought to pass a most delightful triumph.

The white pillars and balcony railings which run entirely around the apartment were twined and festooned with evergreens—over 1000 yards—which had just been used in decorating the church for Miss Crocker's wedding.

The floor was filled with densely packed but orderly exhibits, and all around on sloping flights of shelves were flowers, arranged in glass jars to the number of 3000 or 4000, especially roses, roses, roses, and the wealth of greenery and bloom that met the entering eye was confusing in its lavishness.

Directly opposite the door as one came in stood the exhibit from Golden Gate Park. The deep purple-pink blooms of Cattleya Skinnerii foremost; above them, sago palms and ferns; and around, foliage plants, orchids, calceolaria and various exotics.

Then came John H. Sievers' great palm-shaded output of potted plants. His handsome glass case of orchids, white, pink and purple, was very noticeable. He also had remarkably fine cut flowers in variety.

John Pouyal, florist and exotic nurseryman of S. F., occupied the entire end of the room on the Post-street side, with his display of potted plants, magnolia trees, etc. Here could be seen the Egyptian papyrus. He also had a choice exhibit of cut roses in jars.

On the right were Mrs. Brendemuhl's roses from Fruit Vale; big jars of yellow pond-lilies, sent by Mrs. J. H. Gardiner, of Rio Vista, and Wm. Meyer's bougainvillea. The little table of rhododendrons shown by Mrs. A. K. P. Harmon, of Oakland, was more than pretty. Mrs. A. W. Foster, of San Rafael, made a handsome display of roses—all grown in the open air—together with lemons and lemon blooms. Adolph Sutro contributed choice pots of plants. From E. Gill's nursery in Oakland, came elegant roses, carnation-pinks and camellias.

A widespread and fascinating exhibit was made by the ladies of the Martinez Free Library. Besides a fine display of labeled roses (among them a green rose, not very pretty but very curious), stretched out on fern-crowned stairs, their stand of wild flowers showed 38 varieties. There was also a diversity of cultivated flowers—stocks, abutilon, fox-gloves, pansies, cactus, weigelia, pomegranates, narcissus, fleur de lis, geraniums, etc.

Among the labeled roses, sweet peas and fragrant carnations shown by Mrs. W. M. Boyd, of Oakland, a great lavender clematis was conspicuous.

The stands for the sale of bouquets and of flowers, attended by charming "salesladies" and lassies, were too tantalizing to poor journalists, who would fain be generous, both for the sake of the cause and for the captivating flowers themselves. There was also a big bowl whence lemonade was dispensed, and one of the prominent features was the bonbon department, presided over by Mrs. S. D. Mayer.

When an observer whose time was limited had passed down the right-hand side with too hasty glances at the bewildering floral beauty, but little more time was left him than sufficed to note the names above the more prominent exhibits—those of Mrs. Tillinghast, of Saucelito; Mrs. E. T. Crane, of San Lorenzo; G. Hast and F. Blum, of East Oakland; three floral tables filled with mingled blooms of many species, no names visible; Miss Julia Tompkins, Mr. Sloss and Mr. Gerstle, and Mrs. Jno. Kittle, all of San Rafael; Mrs. Jas. Palache, of Berkeley—such enchanting roses; Geo. B. Jones, of the Saucelito rose nursery, who cut his graceful, long-stemmed treasures without reserve.

The exhibit from the Hotel del Monte (P. Ulrich, gardener) was singularly pleasing. Mrs. Jerome Deasy & Co., of S. F., and the California Rose Co., did themselves great credit. Miss Pratt, of Fruitvale, varied her display with locust blooms, and Dr. Charles Brigham's double deckload of roses was set forth in beauty and bounty unspeakable.

Let this bare sketch be filled and heaped with geraniums, pinks, heliotropes, marguerites, pansies, locusts and countless other blossoms; with roses white, roses cream, roses yellow, roses pink, roses crimson, and then, after all, "it must be seen to be appreciated."

Against several of the pillars hung large placards announcing "A Special Prize for the Prettiest Plant, raised by a child under 15 years, for next year's Floral Exhibition."

Prizes of $25, $15 and $10 were offered for displays of pot plants, and of the same amounts for cut flowers. Awards were as follows: Best exhibition of potted plants, 1st, John H. Sievers; 2d, John Pouyal. Cut flowers, 1st, George B. Jones; 2d, California Rose Company; 3d, Martinez Free Library.

To parties not competing for prizes the following gratuities were awarded: E. Gill, of Oakland, choice collection of roses—200 varieties—$10. John H. Sievers, choice collection of cut flowers, $10. Martinez Free Library, collection of wild flowers, $5.

The cut flowers were renewed and rearranged, and their loveliness kept fresh from day to day. The evenings brought music and crowds of promenaders and purchasers, and the results of all these pleasing and humane endeavors have been very satisfactory to the lady managers. The attendance and receipts have come well up to their expectations, and Mrs. Swift and her associates purpose doing the like, only better and better, from year to year, with the kindly backing of the many friends of their enterprise in town and country.

CAPT. EADS AND THE PANAMA CANAL.—Whatever may be the effect of the death of the dauntless inventor, Captain Eads, on the future of the proposed interoceanic ship canal, that great competing enterprise, the Panama canal, now gives promise of successful completion. The indomitable de Lesseps declares that his mind is perfectly at ease in regard to the progress of the work, and that in three years the Panama canal will be opened for navigation, without a lock to intercept the free passage of vessels from one ocean to the other. The work of cutting through the rocks is being pushed with great vigor by the contractors, and the use of electric lights will soon enable them to turn night into day and work a double force, making it possible to do six years' work in three. Although the cost of this enterprise will be prodigious, greatly exceeding early estimates, and although obstacles in the form of disease among workmen and discontent among stockholders have tended to discourage the enterprise, the venerable de Lesseps does not seem to have lost heart for a moment, and it now looks as if the old man might live to see the completion of this, one of the greatest engineering achievements of the age.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. Apr 28–May 4.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.00	65	NW	Cy.	.00	81	N	Cl.	.00	71	SW	Cl.	.00	57	SW	Cy.	.00	66	SW	Cy.	.00	64	SW	Fr
Friday	.41	50	NW	Cy.	.20	52	S	LR	.00	56	SW	Cy	.05	54	W	Cy.	.00	65	W	Cy.	.00	63	W	Cy.
Saturday	.07	50	SW	Cy	.16	56	N	Cl	.—	56	NW	Cl.	.—	55	W	Cl.	.02	66	NW	Cl.	.18	62	W	Fr.
Sunday	.05		S	LR	.00	64	N	Cl.	.00	60	NW	Cl.	.00	58	W	Cl	.00	72	NW	Cl.	.00	64	W	Cl.
Monday	.23	62	S	Cy.	.00	76	N	Cl.	.00	70	NW	Cl.	.00	70	W	Cl.	.00	82	W	Cl.	.00	70	NW	Cl.
Tuesday	.17	56	S	Cy.	.00	74	S	Fr.	.00	74	S	Cl	.00	61	W	Cl	.00	90	SW	Cl.	.00	74	NW	Cl.
Wednesday	.99	54	S	Cy.	.00	74	S	Cl.	.00	68	SW	Cl.	.00	63	W	Cl	.00	86	W	Cl.	.60	72	NW	Cl.
Total	1.97				36				*				.05				.02				.18			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

Electric Motors in San Francisco.

The use of electricity for power is gradually coming into favor. For certain purposes it is much better than steam, since the motors themselves occupy little room and are clean and noiseless. There is much to be done with electricity for railroad use before it is as perfect as is desired; but for small motors in cities, there are many things to commend it. The Electric Power and Light Company, of this city, is now engaged in perfecting arrangements for power circuits, by which motors will be furnished for running presses, sewing machines, elevators, etc. Some of this work is already being done, but the system is to be widely extended and perfected.

The San Francisco Tool Company, on Stevenson street, has put up one of Prof. N. S. Keith's dynamos in its establishment, and run it by a small independent single-acting engine. From this dynamo wires can be run to electric motors in the vicinity, and power thus furnished. One of the Keith electric motors, connected with this dynamo, has been put in at the Leak Glove Manufactory on Market street. It is a six-horse power motor and is intended to run 75 sewing machines, in use in the factory. The motor is set at one side of the room and takes up no more space than a couple of joints of stovepipe laid side by side. The motor is noiseless and there is no smoke, smell, steam, grease, dust, or any other annoyance. The company is very much pleased with the new source of power and is willing to show the little machine to any one interested. More of these motors will doubtless be placed in other factories in the neighborhood. It is very simple to put them in, and all that is needed is a wire to the main dynamo.

RAPID WORK.—Some idea of the extent to which mechanical ingenuity and efficiency have advanced may be had from the following statement: "It is now possible to construct a complete sewing machine in a minute, or 60 in one hour; a reaper every 15 minutes, or less; 300 watches in a day, complete in all their appointments. More important than this, even, is the fact that it is possible to construct a locomotive in a day. From the plans of the draughtsman to the execution of them by the workmen, every wheel, lever, valve and rod may be constructed from the metals to the engine intact. Every rivet may be driven in the boiler, every tube in the tube sheets, and from the smoke-stack to the ash-pan, a locomotive may be turned out in a working day, completely equipped, ready to do the work of 100 horses." Without such machinery and the skilled labor to operate them, the civilized world of to-day would be an impossibility.—*Ex.*

To Those Visiting San Francisco.

The many readers of this paper who may contemplate a visit to the city would do well to stop at the American Exchange Hotel, it being so centrally located for merchants, farmers, miners, and mine-owners with their families, that we can safely recommend it to those who may be looking for a quiet, respectable and well-kept hotel. The proprietors, Chas. and Wm. Montgomery, have been long and favorably known as hotel-men, and the amount of business done is the best guarantee of the merits of the hotel.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

COTTON-SEED AND CACTUS FOR BEEF.—It is said that a trainload of 330 cattle, from Cotulla, Texas, which had been fattened on prickly pear and cottonseed meal, was lately marketed in Chicago. They attracted considerable attention, being the first large lot of cattle ever fed that way for market, and were sold at $4.25 per cwt.

THE output of the locomotive works of this country at present is estimated to number nearly 40 engines per week.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, *to those who pay fully one year in advance of date*, IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price $1).....$0.25
2.—World's Cyclopedia, 794 pages, 1250 illustrations; (exceedingly valuable)..... .50
3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt..... .50
4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated..... .25
5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations.....05
6.—To NEW Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
9.—Pacific Coast and Eastern Dailies, Books and Periodicals, *except special publications*, we can usually give 10 to 15 per cent off advertised retail rates.
10.—March of Empire, by Mallie Stafford..... .25
11.—Life Among the Apaches, 322 pages, stiff cloth .25
12.—$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application .25
14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.) .25
15.—European Vines Described, 63 pages..... .05
19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable..... .50
23.—Architecture Simplified, 60 pages..... .15
24.—Mother Bickerdyke's Life with the Army; patriotic and ably written; 166 pp., cloth, $1.00..... .50
25.—Ropp's Easy Calculator, cloth, 80 pp..... .25
26.—How to Tell the Age of a Horse..... .05
27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, $3).....1.00
Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present).. .25

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LADIES' FANCY-WORK.—A Manual of Designs and Instructions in all kinds of Needle-Work, embracing Embroidery, Kensington, Lace-Work, Tatting, Net-Work, Wax Flowers, Painting on Silk, etc. Edited by Jenny June. 152 pages, 700 illustrations. 25 cents, postpaid. Regular price, 50 cents.

To Every Pump Maker,

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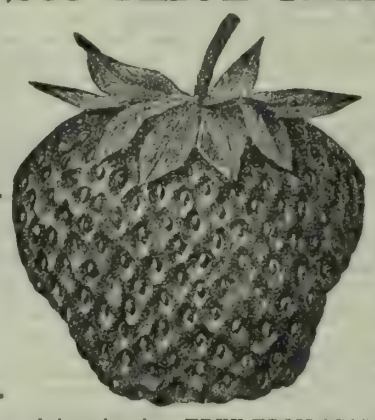
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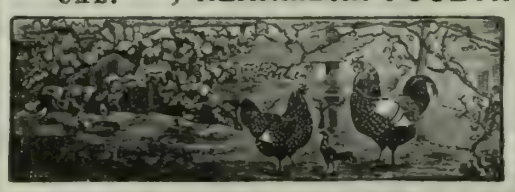


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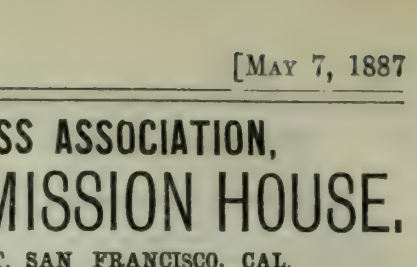
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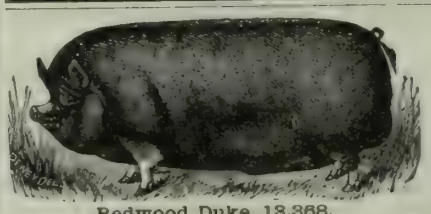
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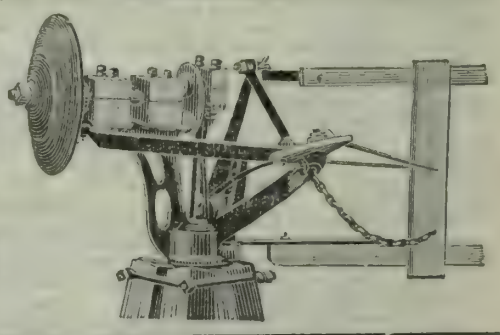
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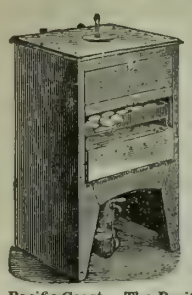
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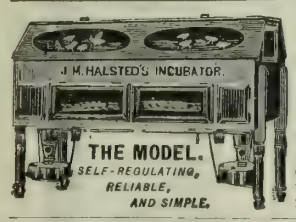
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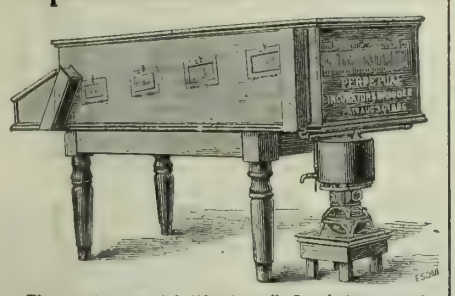
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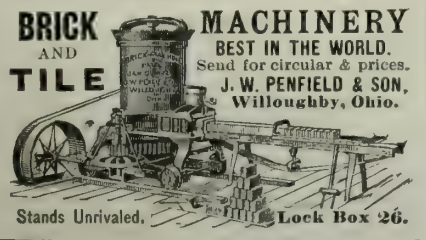
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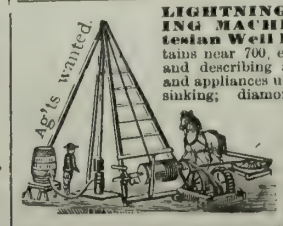
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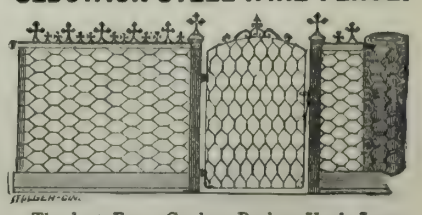
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SEDGWICK BROS., RICHMOND, IND.

S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 4, 1887.

Continued warm weather is beneficial to the fruit crop, but for cereals rains are sadly wanted. Receipts of all kinds of seasonable vegetables and fruits are increasing. The dry weather causes a strong wheat market here, which is also reflected in an advance in the European markets. To-day's cables are as follows:

LONDON, May 4, 1887.—Cargoes off coast, nothing offering; cargoes on passage and for shipment, firm; Cal. wheat, just shipped, 39s; Cal. wheat, nearly due, 38s 3d; French country market, firm; Liverpool wheat, spot, strong; Liverpool wheat, Cal., 7s 8d@7s 11d; weather in England, warmer.

Foreign Review.

LONDON, May 2.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: There has been a decrease in deliveries. The native wheat markets are scantily supplied and this fact has caused advances of from 6d to 1s. The sales of English wheat during the week were 53,453 quarters at 32s 8d, against 51,955 quarters at 31s during the corresponding period last year. Foreign wheat is stagnant and values are tending downward. Corn is steady. Linseed has declined. Eight cargoes of wheat arrived; two cargoes were sold, five were withdrawn and one remained. At to-day's market wheat was firmer. The values of both English and foreign were 6d higher. Flour was firm. Oats were in demand at 3d to 6d higher. Beans and peas were 6d lower.

Eastern Wheat Markets.

NEW YORK, May 1.—Spot has had a free sale during the week, mostly for shipment. Options were quite active, but with the West markets fluctuated frequently and widely. Cable advices were stiffer and brisker at the outset, with renewed dullness and depression toward the close. Important quantities of wheat are going forward via New Orleans to the United Kingdom and the Continent. The market closed heavy, with slight gains for the week; May, 93¼c; June, 93⅜c; July, 93⅜c; August, 91¾@91¼c; and December, 95⅜c.

CHICAGO, May 4—12 M.—82½c for cash, 82½c for May, 84½c for June, 84⅛@84¼c for July, 83⅜c for August, and 83¼c for September.

NEW YORK, May 4—12 M.—67½c for cash 95⅜c for May, 94⅝@94¾c for June, 94⅛@94⅜c for July and 92¾@93c for August.

New York Hop Market.

NEW YORK, May 1.—Business dull, brewers continuing to buy in a hand-to-mouth way and dealers manifesting no speculative tendencies. Pacific Coast crop of 1886, best, 20 to 21c; common to good, 14@17c; 1885, good to prime, 7@9c.

Eastern Wool Markets.

NEW YORK, May 1.—Prices remain unchanged. Low and medium stock is light, but fine clothing wools are in fair supply. Manufacturers are buying in small invoices, and holders do not push their goods. It is thought, however, that considerable territorial stock has changed hands without being reported. Among the sales were 31 bales of scoured California at 45c; 50,000 lbs Eastern Oregon at 21c; 25,000 lbs fine Montana at 22c.

The Philadelphia market is more active. Blood wools, which are very scarce, have ruled firmer, and in some instances have brought higher prices. Among sales were 1000 lbs Montana fine medium at 22c; 12,000 lbs Montana fine medium at 24c; 1000 lbs Montana fine medium at 26c; 3000 lbs Arizona at 20½c.

In Boston the demand has been light, and sales confined mostly to small lots. Among sales were 224,000 lbs Territory at 15@23c; 45 000 lbs Oregon at 16@19½c; 51,000 lbs fall California on private terms.

California Products at New York.

NEW YORK, May 1.—Fresh Fruits—California tangarines are a new delicacy at 60c a doz. Good oranges are scarce. California Navels, $1.50 ₩ doz.

Honey—The stock of California honey has been concentrated in a few hands and its price advanced to 5½c as inside for either white or amber.

Seeds—Mustard, strong, with a fair jobbing trade. California yellow, 4¼@5c.

Dried Fruit and Canned Goods East.

NEW YORK, May 1.—Canned Goods—The consuming trade makes progress, but in round lots among dealers little is doing. Tomatoes are firmer, with $1.05 as the general asking price. California canned peaches and pears, $2.50@2.95; plums and grapes, $1.75@2; apricots, $2.10@2 50; Columbia river salmon are quoted at $1.60; outside rivers, $1.40.

Dried Fruit—Raisins, dull and unchanged. Prunes—Turkish, quiet and weaker, quoted at 4c; Bohemian selling fairly at 3@3¼c; French are in moderate jobbing request at 6½c to 7½c. Currants—The demand is fair at 5½c. Citron—Leghorn, firm at 16¾@17c.

California Fruit in Chicago.

CHICAGO, April 30.—Dried Fruit—A slightly increased demand for sun-dried quartered apples is apparent. Choice sliced and good evaporated continue in fair request. Canned goods are getting scarce. Cranberries are about out of market and green apples are very high, so what is more natural than increased consumption of dried fruit from this on? Peaches old and dull. The supply of California dried fruit is rather light; prices rule steady; prunes, French ₩ lb, 8@9¼c; plums, pitted, 10@11c; peaches, halves, 11@12½c; do halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London layers, 20-lb boxes, $1.40@1.50; loose Muscatel, ₩ box, $1.20@1.30; California layers, ₩ box, $1.25@1.35.

CHICAGO, May 2.—Citrus Fruit—Lemons are about steady, with a moderate trade at former prices. Californias are slow, being smutty or dirty, at $2 to $3 ₩ box. Oranges are in fair supply; arrivals are not large. There is a moderate demand and trade is slow; prices without material change. Quoted by the *Daily Trade Journal:* Bright Riversides, good to fancy, $3.50@4.50; San Bernardino, $3.50@4.25; Santa Ana, $3@3.25; St. Michaels, paper rind, $3.75@4; Orange, $2.50@3; Los Angeles, $2.75@3.25; Navel, according to quality, $5@6; Duarte, $3@3.50; San Gabriel, $2.75@3; blood oranges, fancy, $5@7; culls, $2.

Local Markets.

BAGS—The market is very dull and inactive, with continued shading reported. To-day's quotation for standard size Calcuttas is 5⅛@5¼c for July-August delivery.

BARLEY—The past week has witnessed a strong market, with few fluctuations in prices. The stock reported in this is held against Call Board sales. To-day's sales on Call were as follows:

Morning session: Buyer season—600 tons, $1.17½. Buyer 1887—900 tons, $1.29¼; 100, $1.29⅛; 400, $1.29; 100, $1.28½. Seller 1887—100 tons, $1.11⅝; 400, $1.11¼ ₩ ctl. Afternoon session: Buyer season—300 tons, $1.16¼; 100, $1.16¼; 100, $1.16; 200, $1.15⅞; September—100 tons, $1.13. Buyer 1887—500 tons, $1.27¾; 100, $1.27⅝. Seller 1887—100 tons, $1.10½.

BUTTER—The demand is reported to be fair, and as the receipts are only moderate, prices are steady. It is now very generally conceded that there will be less manufactured this year than there was in 1886.

CHEESE—The market is easier under freer receipts and buyers confining their wants to actual requirements.

EGGS—The market is weak for fair to good, but strictly choice hold up well. The market is unfavorably affected by the receipt of five carloads from the East. These shipments will probably cease, as it costs 18 cts ₩ doz. to lay them down, and then comes draying, commission, etc.

FLOUR—The market is very strong, with some mills asking another advance.

WHEAT—Transactions on Call have been freer at fairly steady prices. It looks as if the syndicate is buying all the wheat they can get at current quotations. To-day $1.87½ was bid on Call for spot No. 1 shipping without finding a selling. Sales on Call to-day were as follows:

Morning session: Spot, season's storage paid—100 tons, $1.86; 100, $1.86⅛. July—500 tons, $1.82½; 300, $1.82; 100, $1.82½. September—1000 tons, $1.76. Buyer season—100 tons, $1.92½; 700, $1.93; 100, $1.93⅛. Buyer 1887—100 tons, $2.05¼; 500, $2.05½; 500, $2.06; 100, $2.06¼. Seller 1887—500 tons, $1.75¼; 400, $1.75⅜; 100, $1.75½; 300, $1.75⅝ ₩ ctl. Afternoon session: Buyer season—100 tons, $1.92½. Buyer 1887—600 tons, $2.06¼; 200, $2.06⅜. July—500, $1.85. Seller 1887—600 tons, $1.75½; 400, $1.75¼; 300, $1.75⅝.

[COMMUNICATED.]

Market Information.

Cereals.

The wheat syndicate, taking all the cash wheat offered them at Chicago on Monday last, has created a different opinion regarding the present move. Many are now inclined to the belief that the present speculative move is founded on something more substantial than a corner. In this the better informed think they are correct, and that time will demonstrate it. It is claimed that the present statistical position of wheat in the supply and demand markets of the world justify a higher range of values than now obtains.

The stock of wheat in this city and at Port Costa on May 1st is given at over 157,000 short tons, an increase of 44,000 tons over the stock on April 1st. The increase is due to heavy deliveries from interior warehouses so as to meet Call board sales. The stock now on hand is either owned by the syndicate or will be when short sellers make deliveries. The sales of seller '87 wheat on Call are all taken by the same parties.

Eastern crop advices, taken as a whole, do not warrant estimating the outturn next harvest at more than 90 per cent of last year's crop, and even this percentage will depend much on favorable weather for the next 60 days. In this State, crop advices are rather conflicting, but stripped of the biased opinions of operators, it is safe to say that the outlook is far from encouraging, and except in a few favored counties the outturn will not be more than one-half of a crop. The estimate heretofore made of 900,000 tons is hardly safe, and can be reduced to 850,000, which will give us an exportable surplus of 500,000 tons. Even to obtain this quantity rains are required. From Oregon our advices report a prospective outturn of about 45 per cent more in that State and Washington Territory than last year. The increase will come from east of the Cascade mountains, where exceptional good crop weather has obtained throughout the winter.

Corn has shown more strength the past week, with holders not disposed to make concessions. Their firmness is due to the large consumption and light available supplies here. The stock on hand is 1804 tons, being 1064 tons less than reported on April 1st last.

The barley market has ruled very strong, with a steadily decreasing stock reported. On January 1, the stock in this city was 21,275 tons, and notwithstanding very heavy receipts, the stock on May 1 was 15,100 tons. The exports, both overland and by sea, aggregate so far this season 48 910 tons, against about 12,500 tons last season. The consumption in this State is very large and constantly increasing. Private circulars and reports issued by interested firms are bearing the market against farmers.

Private circulars or reports are untrustworthy and are always according to how the firm issuing them wants the market to go so as to make money for themselves. They wrote against wheat when it was down, and also against barley, but prices went up.

Oats are easier under freer supplies. The high prices asked restrict consumption and therefore the market drags. Consumers use more largely of ground feed, and also of barley.

Rye and buckwheat are slow.

The United Kingdom, provided consumption be normal, will require to purchase in and ship from all foreign countries from April 16, 1887, in time to arrive by August 31, 1887, upward of 50,000,000 bushels of flour and wheat. The average stocks of wheat and flour in the United Kingdom, taken June 30 and December 31, for six years, have been slightly less than 16,000,000 bushels. The stock of flour April 1, 1887, does not seem to be excessive for 37,000,000 population, being only about 1.37 of a barrel per capita. Late Paris advices place the requirements of France for the remaining portion of the cereal year for foreign wheat and flour at 22,000,000 to 34,000,000 bushels. The French wheat harvest promises to be a late one. French stocks of wheat and flour together, in the ports, in and out of bond, and in Paris, are only about equal to 5,000,000 bushels of wheat. M. Narcisse Meyer, Paris, estimates that France required to import about 60,000 000 bushels of wheat between February 1 last and September 10 next.

Hog Statistics.

The Cincinnati *Price Current* has issued its annual report of the pork packing of the West, from which we copy the following relating to the Pacific Coast: At San Francisco there are several pork-packing establishments, and hogs are slaughtered throughout the year. The leading house there estimates 185,000 hogs as the total number packed during the year 1886 at San Francisco, and 160,000 at other places in the State, making a total of 345,000 for California, compared with 260,000 estimated for 1885 and 225,000 for 1884. Average weight at San Francisco, 180 lbs gross in 1886. Information from Portland, Oregon, indicates that the packing in that city and elsewhere in the State, and in Washington Territory, was approximately 50,000 hogs during the year 1886. The number of hogs credited to California and Oregon in recent years by the Department of Agriculture is shown in the following:

	California.	Oregon.	Total.
1887	1,017,322	229,920	1,247,242
1886	1,027.598	191,600	1,219,198
1885	978,665	187,854	1,166,508
1884	950,160	184,160	1,134,220
1883	856.060	168,954	1,024.954
1882	585.443	160,909	746,352

Live-Stock.

Owing to fears of poor pasture, there is a strong selling pressure for bullocks, and as the consumption is light, prices are lower. In mutton sheep the market is barely steady at quotations. Calves are steadier. Milch cows and horses are reported to be about the same as given in last week's issue.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8c; first grade, grass fed, 7½c per lb.; second grade, 7@—c; third grade, 6c.

MUTTON—Ewes, 6½; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8¼c; small, 6@8c.

PORK—Live hogs, 4¾@5¼c for heavy and medium; hard dressed, 7½@8¾c per lb; light, 4½@5¾c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Feedstuff.

Bran, middlings and ground barley are strong under a good consumption. The first two are in light supply.

Hay continues to rule strong under moderate receipts, a firm holding and light supplies to draw from. This year's crop promises to be considerably short of last year's, while the consumption is larger.

Vegetables.

Peas continue largely in excess of the demand. The Columbia Canning Company took quite freely for several days, but drew out when the Overland Canning Company entered the market. It is claimed that the first-named cannery does not want to pay over 25 to 50 cts per sack for sweet peas. The crop is said to be very heavy.

Rhubarb holds firm, owing to moderate receipts.

Asparagus fluctuates from day to day, prices being controlled by the receipts.

In other garden truck there is nothing particular to note.

Fruits.

Receipts of strawberries continue free, but the demand being brisk, prices are well maintained. Canners claim that owing to the heavy crop they will be able to put up more than they did last year.

Raspberries are slow in coming in, causing high prices to rule.

Some few barely ripe currants are being received. They sell slow.

Gooseberries are in better supply, with only a moderate demand at quotations, as dealers believe that a lower range must rule soon.

Oranges continue to come in freely, and meet with a ready market. The demand is chiefly on orders from up North, although the local and near-by trade take freely.

The reduction in overland freights for shipments of carload lots of fruits to Chicago and points on the Missouri river, it is claimed, will cause heavier shipments of all kinds of green fruits.

A large consignment of Mexican limes came, and owing to their superior quality and the bare market, sold well.

Lemons are steady, with a good consumption reported, owing to the higher cost of limes.

Dried fruits are in light supply, with choice hard to get even by paying a slight advance.

Canned fruits are in light stock, as canners have been forcing the market so as to close out their holdings. The bulk of goods sold went East.

Miscellaneous.

The lower overland freights have stimulated the demand for wools, but buyers are not taking as freely as they would if the rates were settled. The meeting at Chicago of railroad freight managers will settle the tariff. Shipments to the East have been quite free, both by rail overland and by steam via Panama. The market shows a stronger tone, with top prices more readily obtained.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	230,320	245,311
In port, disengaged	119,577	39,687
In port, engaged	3,862	32,276
Totals	353.759	317,274

The above gives a carrying capacity as follows: 1887, 566,034 short tons; 1886, 507,638 short tons; increase over last year, 58,396.

Beans are firmly held, with choice wanted at a slight advance.

Poultry has ruled weaker for all kinds except choice young roosters, which are still scarce. Hens continue to come in in excess of the demand, causing lower prices to rule.

Hops, owing to increased consumption by brewers, are in good demand, with some sales of choice reported in a small way at an advance on top quotations.

Tallow is very strong under a good demand and only fair supplies.

Hides have a steadier tone.

San Francisco, May 4, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 4, 1887	
BEANS AND PEAS.	
Bayo, ctl	2 00 @ 2 75
Butter	1 60 @ 1 75
Pea	1 75 @ 2 00
Red	1 40 @ 1 55
Pink	1 25 @ 1 45
Large White	1 75 @ 1 85
Small White	1 75 @ 1 90
Lima	1 75 @ 2 25
Fld Peas, blk eye	1 00 @ 1 05
do green	1 00 @ 1 12½
do Niles	1 25 @ —
BROOM CORN.	
Southern per ton	50 @ 75
Northern per ton	50 @ 75
CHICORY.	
California	4 @ 4½
German	6½@ 7
DAIRY PRODUCE, ETC.	
BUTTER.	
Cal. fresh roll, lb	15 @ 18½
do Fancy br'nds	19 @ 20
Pickle roll	18 @ 20
Firkin, new	16 @ 20
Eastern	— @ —
CHEESE.	
Cheese, Cal., lb	9 @ 10½
Eastern style	11 @ 12
EGGS.	
Cal., ranch, doz	20 @ —
do, store	17 @ 19
Ducks	— @ —
Oregon	— @ —
Eastern	17 @ 18
FEED.	
Bran, ton	21 50 @22 50
Cornmeal	24 00 @25 00
Gr'd Barley ton	25 00 @26 00
Hay	10 00 @14 00
Middlings	25 00 @26 00
Oil Cake Meal	26 50 @28 50
Straw, bale	40 @ 60
FLOUR.	
Extra, City Mills	4 70 @ 5 45
do Co'ntry Mills	4 20 @ 5 20
Superfine	3 45 @ 4 20
GRAIN, ETC.	
Barley, feed, ctl	1 10 @ 1 20
do Brewing	1 15 @ 1 25
Chevalier	1 45 @ 1 60
do Coast	— @ —
Buckwheat	1 00 @ 1 20
Corn, White	1 07½ @ 1 15
Yellow	1 05 @ 1 10
Small Round	1 10 @ 1 20
Nebraska	1 05 @ 1 10
Oats, milling	1 85 @ 1 90
Choice feed	1 70 @ 1 75
do good	1 60 @ 1 70
do fair	1 45 @ 1 55
do black	— @ —
do Oregon	— @ —
Rye	1 10 @ 1 25
Wheat milling, Gilt edged	1 85 @ 1 90
do Choice	1 80 @ 1 85
do fair to good	1 75 @ 1 80
Shipping choice	1 80 @ 1 87½
do good	1 75 @ 1 80
do fair	1 70 @ 1 75
HIDES.	
Dry	14 @ 16
Wet salted	7½@ 8½
HONEY, ETC.	
Beeswax, lb	20 @ 22
Honey in comb	9 @ 12
Honey in comb, fancy	13 @ 14½
Extracted, light	4½@ 5
do dark	3½@ 4½
HOPS.	
Oregon	17½@ 22½
California	15 @ 22½
ONIONS.	
Pickling	— @ —
Silverskin	1 50 @ 3 00
do new	1 25 @ 2 00
NUTS—JOBBING.	
Walnuts, Cal., lb	12½@ 13½
do Chile	— @ —
Almonds, hd shl	5 @ 7
Soft shell	17 @ 17½
Paper shell	18 @ 19
Brazil	11½ @ 13
Pecans	9 @ 11
Peanuts	4½@ 5
Filberts	10 @ 11
Hickory	7 @ 8
POTATOES.	
Burbank	2 00 @ 2 75
Early Rose	1 60 @ 1 85
Cuffey Cove	1 80 @ 2 25
Jersey Blues	— @ —
Petaluma	— @ —
Tomales	— @ —
River reds	1 75 @ 2 10
Humboldt	2 00 @ —
do Kidney	2 00 @ —
Chile	— @ —
do Oregon	1 75 @ 2 25
Peerless	1 90 @ 2 25
Salt Lake	— @ —
New Potatoes	2 @ 3
POULTRY AND GAME	
Hens, doz	6 00 @ 7 00
Roosters	6 00 @11 00
Broilers	3 00 @ 7 00
Ducks, tame	5 50 @ 7 00
do Mallard	— @ —
do Sprig	— @ —
Geese, pair	1 25 @ 1 75
do Goslings	2 00 @ 2 25
Wild Gray, doz	@ —
Turkeys, lb	19 @ 21
do Dressed	— @ —
Turkey Feathers, tail and wing	10 @ 20
Snipe, Eng., doz	— @ —
do Common	— @ —
Doves	— @ —
Quail	— @ —
Rabbits	1 00 @ —
Hare	1 25 @ —
Venison	@ —
PROVISIONS.	
Cal. Bacon, Heavy, lb	9 @ 10
Medium	9 @ 10
Light	11 @ 12½
Extra Light	13 @ 13½
Lard	8 @ 12
Cal. Smoked Beef	11½@ 12½
Hams, Cal	12½@ 15
do Eastern	14½@ 15½
SEEDS.	
Alfalfa	8 @ 9
Canary	3½@ 4
Clover red	10 @ 12
White	15 @ 17
Cotton	20 @ —
Flaxseed	2 @ —
Hemp	4 @ 4½
Italian RyeGrass	25 @ —
Perennial	7 @ 9
Millet, German	4½@ 5
do Common	1 @ 10
Mustard, white	3 00 @ 3 75
Brown	3 00 @ 3 75
Rape	1½@ 2
Ky. Blue Grass	11 @ 13
2d quality	11 @ 12
Sweet V. Grass	75 @ —
Orchard	20 @ 25
Red Top	15 @ —
Hungarian	8 @ 10
Lawn	30 @ 40
Mesquit	10 @ 12
Timothy	5½@ —
TALLOW.	
Crude, lb	2 @
Refined	6 @
WOOL, ETC.	
SPRING—1886	
Humboldt and Mendocino	18 @ 21
Sact'o valley	14 @ 17
Free Mountain	17 @ 18
N'hern defective	— @ —
S Joaquin valley	10 @ 13
do mountain	13 @ 15
Cava'v & Fth'll	13 @ 15
Oregon Eastern	15 @ 21
do valley	18 @ 22
Southern Coast	9 @ 10

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 4, 1887	
Apples, bx com	1 00 @ 1 50
do choice	1 75 @ 2 25
Bananas, bunch	2 00 @ 3 25
Blackberries, ch	— @ —
Cantelloupes, ev	— @ —
Cherries white bx	75 @ 1 25
do black bx	1 00 @ 1 75
do Royal Ann	— @ —
Cherry plums	— @ —
Crabapples	— @ —
Cranberries	10 00 @12 50
Currants chest	— @ —
Gooseberries lb	5 @ 7
Figs, bx	— @ —
Grapes	— @ —
do Rose Peru	— @ —
do Muscat	— @ —
do Tokays	— @ —
Isabel	— @ —
Wine, Zinfandel	— @ —
do Mission	— @ —
Limes, Mex	9 00 @10 50
do Cal. box	1 50 @ 3 00
Lemons, Cal., bx	1 50 @ 2 00
do Sicily, box	4 50 @ 6 00
do Australian	— @ —
Nectarines box	— @ —
Oranges, Com bx	1 25 @ 1 75
do Choice	2 00 @ 3 00
do Navels	3 50 @ 5 00
do Panama	— @ —
Peaches, bx	— @ —
do bask	— @ —
Crawfords, bx	— @ —
do bskt	— @ —
do choice	— @ —
Pears bx	— @ —
do choice	— @ —
do Bartlett, bx	— @ —
Persimmons, Jap, bx	— @ —
Pineapples, doz	4 00 @ 5 00
Pomegranates, b	— @ —
Prunes bx	— @ —
Quinces bx	— @ —
Raspberries dr	1 50 @ 2 00
Strawberries ch	5 00 @12 00
Watermelons 100	— @ —
DRIED FRUIT	
Apples, sliced, lb	5 @ 7
do evaporated	12 @ 13
do quartered	4 @ 5
Apricots	13 @ 15
do evaporated	20 @ 25
Blackberries	13 @ 13½
Citron	28 @ 30
Dates	9 @ 10
Figs, pressed	5 @ 6
Figs, loose	3 @ 4
Nectarines	8 @ 10
do evaporated	16 @ 18
Peaches	8 @ 10
do pared	18 @ 20
do evaporated	20 @ 30
Pears, sliced	5 @ 6
do qrtd	4 @ 5
do evaporated	8 @ 10
Plums, pitted	9 @ 10
do unpitted	3 @ 5
Prunes	6 @ 10
do French	8½@ 12
Zante Currants	8 @ —
RAISINS.	
Dehesa Clus, fcy	2 40 @ 2 50
Imperial Cabinet, fancy	1 75 @ —
Crown London Layers, fcy	1 50 @ —
do Loose Muscatels, fancy	1 40 @ —
do Loose Muscatels	1 35 @ —
Cal. Valencias	1 25 @ —
do Layers	1 25 @ —
do Sultanas	1 25 @ —

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do green, lb	25 @ 30
Pumpkins prtson	— @ —
Squash, Marrow	
fat, son	10 00 @12 00
do Summer bx	— @ —
String beans lb	8 @ 15
Tomatoes box	1 50 @ 2 25
Turnips ctl	25 @ 60
Beets, sk	75 @ —
Cabbage, 100 lbs	1 00 @ 1 25
Carrots, sk	35 @ —
Cauliflower, doz	— @ —
Eggplant, ₩ lb	15 @ 25
Garlic, lb	1½@ 2½
Green Corn, small box	— @ —
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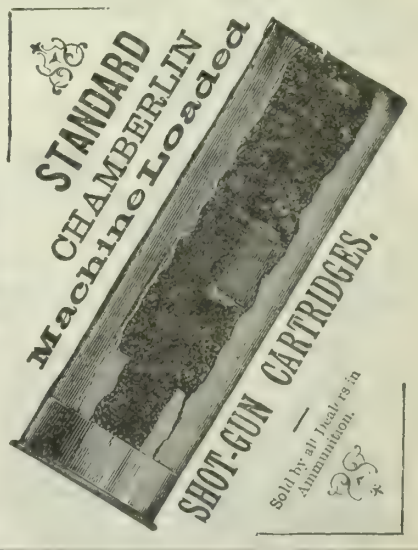
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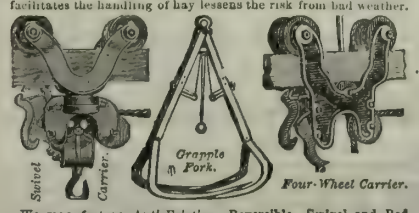
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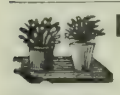
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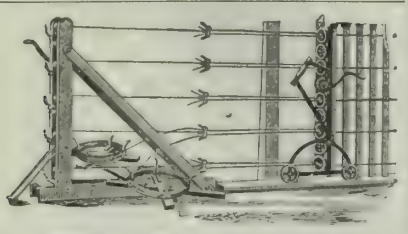
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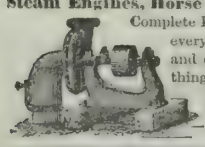
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The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia,** therefore, total of Nitrogen calculated as **Ammonia,** 2.72 per cent.

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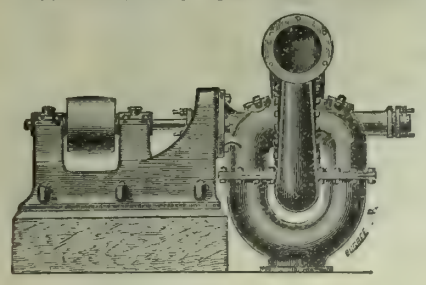
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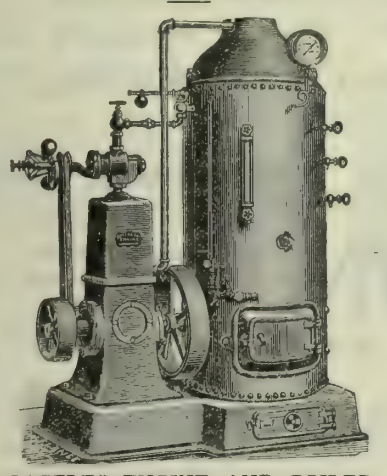
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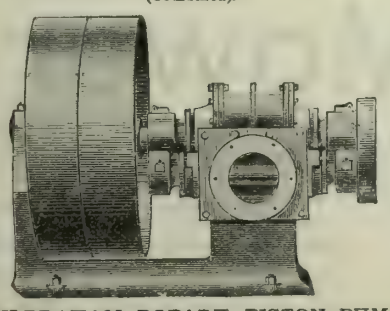
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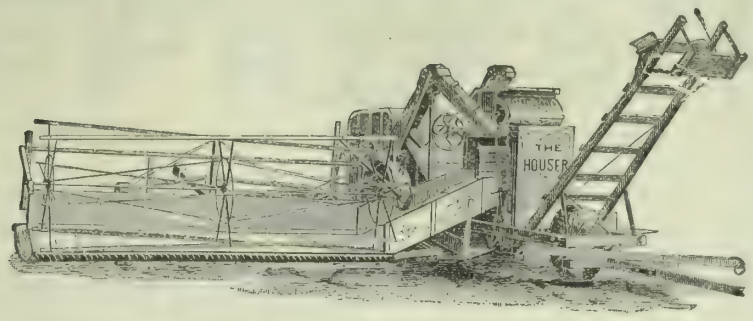
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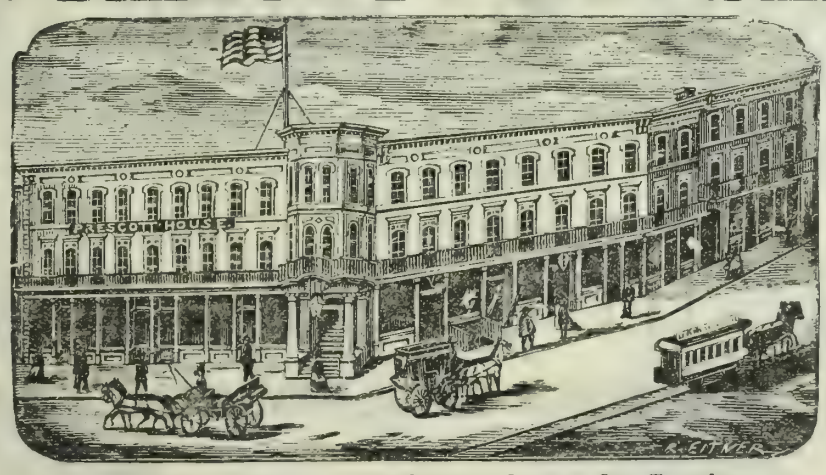
They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre. and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞See Testimonials and large cut of the Houser, outside pages, Rural Press, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

PRESCOTT HOUSE.



S. W. Corner Kearny and Montgomery Avenue, San Francisco.

☞Free Coach to and from the House J. W. BECKER, Proprietor.

THE BLATCHLY FRUIT DRIER.

A. BLATCHLY, manufacturer of all kinds and sizes of Driers, from the smallest Family Stove Drier to the huge Raisin Drier, holding 100,000 pounds of fruit at a charge. Also, all Machinery required in building Driers, as Steam Engines and Boilers. Steel Fan Wheels—the strongest and lightest running made. Heaters—a great variety. Iron and Wooden Cars of all sizes, with wheels running equally well on a track or floor. Trays, large or small, with Wood, Metal or Wire Cloth Bottoms. Car Tracks, Thermometers, Hygrometers, etc.

RAISIN DRIERS A SPECIALTY.

Being the first to make in Fresno, in 1884, a machine-dried Raisin that sold for as high or higher price than the sun-dried, and having the experience of the last three years, renders it possible to build a Raisin Drier guaranteed to be superior to any now in use in cheapness and efficiency. Estimates and prices furnished on application to

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"THE FAVORITE" SULPHUR BELLOWS.

Patented Jan. 26, 1886.

Price—6-inch, $2.50; 8-inch, $3; 10-inch $3 50.

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All kinds of Bellows Made to Order.

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HAY PRESSES.



THE HURRICANE,

A Mounted Double-Ender Baling Machine, capable of baling 40 tons per day.

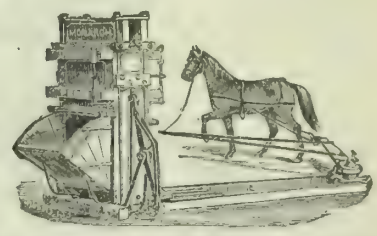
ITS RECORD

For the first year of its existence is as follows: **Four tons in one hour, nineteen and three-quarters tons in a half day, thirty-seven and one-quarter tons in one day, and 1800 bales in six successive days.**

Two sizes: Compressed bales and common bales. **Improved this year so that it is nearly one-quarter faster than before, and the back-and-forth movement of the horse lever is made to bring the hay across the stack and hoist the bales into a pile.**

Has three or four times the capacity of Eastern-made presses, with the same number of men and horses.

Price, at factory, San Leandro, Cal., **$1000.**



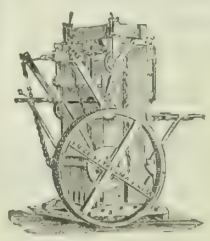
THE JUNIOR MONARCH

Does its own Tramping. Feeds at Side, near the Bottom.

HAS THE FOLLOWING RECORD:

33 tons in one day; 105 tons in 3½ days; 20 tons, and over, daily average for the season; 2350 tons with one press in one season; 23 sold in one valley last season.

Price, at factory, San Leandro, Cal., **$500.**



—THE—

Genuine Price Petaluma,

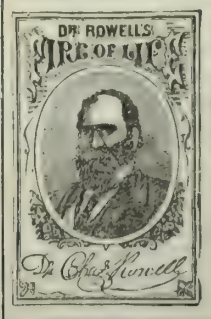
With Latest Improvements.

Made under the supervision of the inventor, JACOB PRICE. Too well known to need further description. First-class material and workmanship Capacity, from 10 to 18 tons per day. Hay must be tramped in press.

Price, at factory, San Leandro, Cal., **$350.**

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PRICE HAY PRESS CO.



A MAGIC CURE

—FOR—

Rheumatism, Neuralgia, Pneumonia, Paralysis, Asthma, Sciatica, Gout, Lumbago and Deafness.

Everybody should have it.

G. G. BURNETT, Ag't

327 Montgomery St., S. F.

Price, $1.00. Sold by all Druggists. ☞Call and see

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SAN FRANCISCO, CAL.

75,000 TONS CAPACITY. 75,000

Storage at Lowest Rates.

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AN ELEGANT SIX-BLADED KNIFE,

Pearl handle, 3½ inches long, sent to any address by mail, prepaid, on receipt of 60 cents.

BUTLER BROS. KNIFE CO.,
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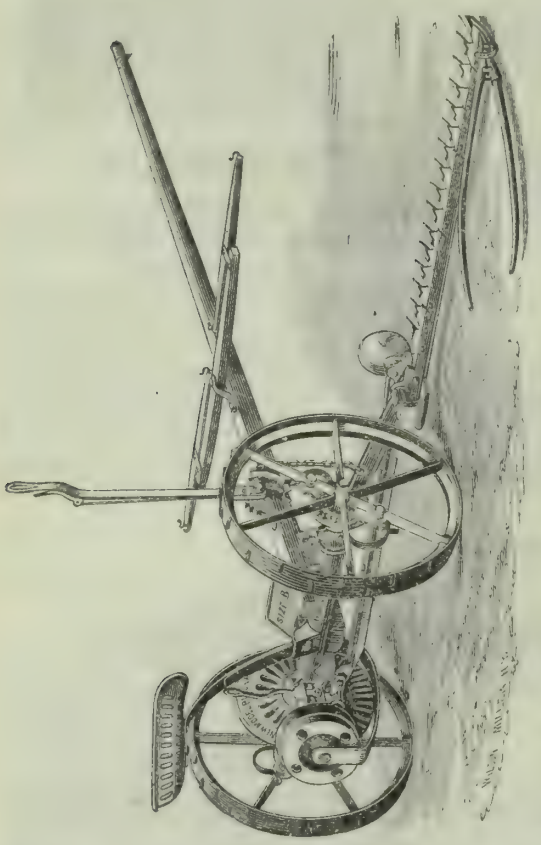
ADRIANCE "BUCKEYE" MOWERS.

MAKE SURE THAT YOU BUY THE BEST MOWER MANUFACTURED.

One that will Outwear two of any other make of Machine.

One that is very Simply Constructed and the Lightest Draft.

One that will do Better Work than any other Mower made.



SOME OF THE REASONS why the Farmers prefer the ADRIANCE BUCKEYE to all other Mowers:

It is the **most simlpe.**
Contains **fewer parts.**
Is the best braced and strongest.
Has fewer and better bearings.
A less number of places for oiling.
All its parts are in sight and easily understood and kept in order by the ordinary farm hand.
It is built on correct mechanical principles.
Has the only perfect double-jointed Finger Bar, which adapts itself to every variety of surface.
There is no downward pressure on the Finger Bar, but a lifting tendency when coming out of a ditch or furrow.
The Knives have a truer and more uniform throw through the Guard Fingers.
Has the most perfect cutting apparatus.
No loose connections or knuckle-joints.
Cuts a swath the full length of the Cutter Bar without driving the off-horse in the standing grass.
It is perfectly adjustable to any work.
All its weight is utilized for power.
The horses draw directly from the axle, and no weight comes on their necks.
It is the **lightest draft.**
It is perfectly balanced.
Easiest to operate.
Excels all others in portability.
The Cutter Bar holds firmly, and flat across the frame.
The most comfortable and the **safest** for the driver.
Only the best material and workmanship are used in its construction.
It requires **fewer repairs.**
Extra parts are more easily obtained.
It has the **longest and best record.**
Its average life is double that of others.

☞ The Majority of the Farmers use it Wherever Sold. ☜

SEND FOR SPECIAL "BUCKEYE" DESCRIPTIVE PAMPHLET WITH REDUCED PRICES FOR 1887

Hodges' Haines' and Hodges' Case Headers, the Rice Straw-Burning Engines, Gold Medal Separators, Perkins' Wind-Mills, Etc.

Sole Agents for THE "SCHUTTLER" FARM WAGONS, "TAYLOR" and "RELIABLE" SULKY RAKE.

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IMPORTERS, MANUFACTURERS, AND DEALERS IN

HARDWARE and AGRICULTURAL IMPLEMENTS.

1887

Benicia Improved Mower.

Manufactured by BENICIA AGRICULTURAL WORKS, Benicia, Cal.

In presenting our BENICIA MOWER, as improved for 1887, we are placing on the market a machine that has no superior. Great care has been exercised in their manufacture, both as regards material and workmanship.

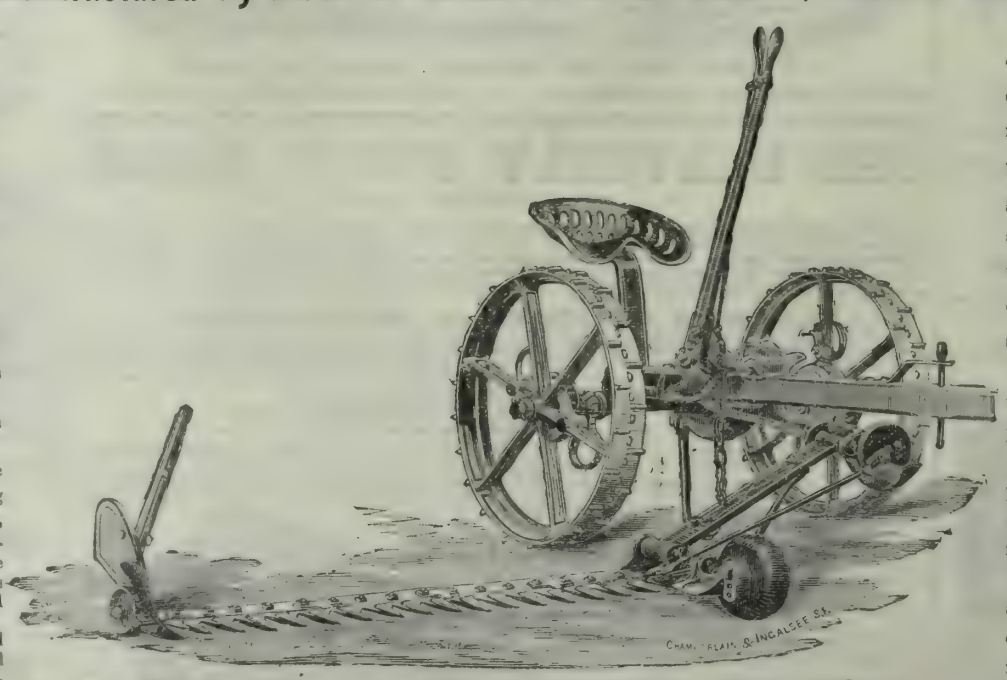
The shafts are all made of COLD ROLLED STEEL, which adds at least 50 per cent to their strength as compared with any other shafting used in such machines.

The gearing is incased and is made of the best iron.

The outside shoe is furnished with both a wheel and spring, the spring being wide and heavy. The machine is thrown in and out of gear by means of an eccentric, thereby doing away with the clutch and shifter lever.

The bearings of the crank shaft are long and well babbitted, besides being provided with self-oiling boxes, that is, the boxes are long and filled with wicking or waste, thus guarding against the bearings becoming heated, as the boxes hold considerable oil and continually feed it to the shaft.

The Pitman is long, and is furnished with either straight pin revolving or ball and socket connections, as may be desired.



Weight, 650 pounds. Cuts 4 feet 3 inches. Price, $90.

The knife guides or buttons on the cutter bar are made so that as the back of the knife wears them they can be set forward, thus keeping the knife in its proper position and preventing the grass getting in and clogging the guards. They are bolted to the bar by the same bolts that hold the guards, and their position can be changed or more can be put on if so desired.

The cutter bar can be laid flat across the pole when traveling from place to place.

There are many other points of superiority over other machines, which, on an inspection of the machine, will show for themselves.

In fact we have no hesitancy in guaranteeing the Benicia Mower to be first-class in every particular. It is simple in its construction, of light draft and perfect in its operation.

N. B.—We still have in stock a few CHAMPION MOWERS, which we will offer at greatly reduced prices.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 20.] SAN FRANCISCO, SATURDAY, MAY 14, 1887. [$3 a Year, in Advance. SINGLE COPIES, 10 CTS.

The Latest Triumph in Roses.

Now that floricultural interest is keen, because of the floral fairs which have been held at many places in the State, we deem it pertinent to present a portrait of the latest triumph in rose propagation, and, in some respects, the most remarkable rose in the world. Most rose-growers know by reputation Mr. Henry Bennett, of Shepperton, England, who is ranked as the most successful hybridizer of roses in the world. It is claimed that he has brought his work to such perfection, and he works in accordance with such true scientific principles in his rose-breeding, that he can in time produce a rose having, within certain limits, of course, whatever desirable characteristics his patrons may seek to secure. Mr. Bennett was the originator of the famous Wm. F. Bennett and Her Majesty roses, and his latest production is the Puritan, a splendid white rose, about five inches in diameter, which he sold to Charles F. Evans, of Philadelphia, in the summer of 1885, for $2500. Mr. Evans brought the Puritan into notice, and its characteristics were so remarkable that about April 1st the entire stock of the Puritan was sold by Mr. Evans to J. W. Elliott, of the B. A. Elliott Company, of Pittsburg, Pa., for the enormous price of $18,000, which is more than double the price ever paid before for a new rose. Mr. Elliott will sell the Puritan only in large quantities to the most extensive cut flower-growers of the cities of the country, binding them not to resell any of the plants until February, 1888.

We have given first the commercial measure of the Puritan, because such figures, of course, represent in a most striking manner the florists' estimate of a new variety. But the Puritan has won other honors than dollars. The rose has been honored with a silver medal by the Massachusetts Horticultural Society and the Pennsylvania Horticultural Society. Its most signal triumph was, however, in the land of its birth. Samples of the cut roses were sent to England, and on April 15th the Puritan was awarded a first-class certificate from the Royal Horticultural Society. This is the highest award the society gives for a new flower. We find in the London *Garden*, of April 12th, a reference to the Puritan which is interesting, because of the notes on the rose, and description of the way in which the cut flowers were successfully sent across the Atlantic. We quote from the *Garden* as follows:



THE PURITAN—AN EIGHTEEN THOUSAND DOLLAR ROSE.

The meeting of the Fruit and Floral Committees, held in the conservatory, was rendered particularly attractive by the new feature of cut roses from America, which were staged in excellent condition. The following first-class certificate was awarded, viz: to rose Puritan. Plants in flower and cut blooms of this rose were staged; they had been sent from America to this country for exhibition, 11 days being occupied in transit; they arrived in excellent condition. The foliage of this variety is stout and of a deep metallic green; the flowers large, creamy white, of exquisite form; petals round, and of good substance; while its staying properties may be judged of by the journey to which they had been subjected. One dozen of the cut blooms had been inclosed in a hermetically sealed box, and an equal number had traveled in tubes of water in an ordinary close box; there did not, however, appear to be any appreciable difference in their condition. Judging by examples, it is a great acquisition.

Concerning the origin and specific qualities of the Puritan, Mr. Evans, for whom it was produced by Mr. Bennett, gives a description. The Puritan is a cross between "Mabel Morrison" and "Devoniensis," is of pure white color, of large size, perfect symmetry, and of most delightful fragrance. In size and shape it greatly resembles its parent, "Mabel Morrison," carrying a wreath of foliage close to the bud. The fragrance of the Puritan is deliciously fresh and sweet, being very suggestive of the magnolia. The habit of the plant is very strong and vigorous. It is a most prolific and early bloomer. The buds have very long stems, which is, of course, a good point when it is used for decorative purposes.

No doubt our rose-growers will be on the *qui vive* to get a rose which has such a record, and we shall be glad to see if it will enjoy outdoor life in California as well as other famous sorts.

THE CONTESTED CLAUSE.—It is now claimed by telegraph from the East that on the return of the Interstate Commission from their tour, without hearing more arguments or petitions, an order will be issued suspending the long and short haul clause, section 4, on all the railroads of any account in the country. How long the suspension may be is not stated, but it is thought it may be till after Congress assembles.

Cold Storage.

Methods of keeping ripe fruit free from decay for longer or shorter periods are now coming into prominence in this State. As the fruit-grower hears of the success and practicability of different processes, he wonders why, if all that is claimed for them be true, he has been allowed to suffer so long because of the need of immediate disposition of perishable fruit. He remembers the cords of fine peaches, for instance, which have lain rotting on the sidewalks of San Francisco because the canners had not help nor facilities for handling so much fruit at once. He sees that any enterprise which will keep that fruit in storage which prevents decay, until the glut is removed by consumption, would be profitable both to him and to the warehouseman who provides such storage. He also sees the advantage there would be in having cold storage on his own farm or in his own neighborhood, so that he could hold back his fruit until the market was ready to take it at a fair price. It certainly appears, upon theoretical grounds at least, that arrangements for cold storage would free the marketing of fruit from many of its dangers and disasters.

It seems likely now that such arrangements would soon be provided. There are several processes which can show good results, and, no doubt, they will attract the attention of capitalists. We do not advocate any special device or arrangement. It is for those who desire to invest to examine and choose for themselves. No doubt all owners of patents and processes will be found ready with proofs of the values of their respective processes. Upon another page we give the report of the committee of the late Fruit-Growers' Convention, which examined the process now in use in Riverside. Upon another page still may be found a statement from Mr. Allegretti, claiming his improved process, because of its cheapness and its ease of adaptation to use on a small scale, can be introduced by individual growers on their own ranches, or employed on a more extensive scale by co-operation of growers or canners, or by any parties desiring to keep ripe fruit from decay.

There should be some notable progress made this year in securing cold storage in this part of the State. If the marketing or canning season for deciduous fruits can be prolonged, very much more fruit can be profitably disposed of. As our fruit crop will now be increasing from year to year in a geometrical ratio, it is imperative that everything possible should be done to improve the commercial aspects of the industry.

WOOL.—There seems to be quite an interest in wool at present, and buyers are patrolling the wool counties and raising values by bidding against each other. Let it proceed.

THE Fresno Milling Co. has secured a contract for furnishing 800,000 pounds of flour to Government posts in Arizona.

FRUIT MARKETING.

Cold Storage for Fruit.

The following is the report of the "Committee on Cold Storage" of the recent Riverside Convention. This report was mentioned in our report of the convention; also in the report of the Horticultural Society's meeting in last week's RURAL:

Your committee appointed to examine the question of cold storage and report thereon beg leave to submit the following:

The time given for the examination of so important a question has been entirely too short, but we have gathered as much information as possible in the time allotted.

The Inter-Ocean Cold Storage Company has its works—the only ones of the kind in California, except a small experimental one at Santa Ana, on the depot grounds of the Riverside, Santa Ana & Los Angeles railway in this place, that are reported as costing $40,000.

The works consist of a warehouse divided into several rooms, each of which is constructed with a view to keeping out the heat, and connected therewith is the necessary machinery for the manufacture of ice and the pumping of cold brine through a system of pipes extending overhead in the several apartments of the warehouse.

This system of cooling the atmosphere collects the moisture of the room on the cold pipes in the shape of frost, and thus the room, the atmosphere and the fruit contained therein are kept perfectly dry.

The process of cooling the atmosphere of these rooms is so systematized that the thermometer in any given room is kept at a steady degree of temperature for days and weeks at a time without variation.

The cold storage is used for two purposes—

First—To cool the fruit for shipment East; and

Second—For keeping the fruit for weeks at a time before being put upon the market.

For cooling the fruit for market it requires about 24 hours, and the warerooms have a capacity of 10 carloads of fruit per day.

In one room we found 3500 boxes of lemons which have been stored for next summer's use. This fruit has been in cold storage from two to six weeks, and appears to be curing in good shape, and the indications point to the successful keeping of the fruit until next summer, when it will bring the highest price. If the lemons can be successfully kept for six months so that they can be picked from November to March, and sold in June, July and August, and the fruit when taken from cold storage will have sufficient life to be placed on the market, and consumed without unnecessary decay, the future of lemon culture is assured in California, and this State can, in a few years, drive all foreign lemons from this country.

Your committee examined the oranges and lemons placed on exhibition in the pavilion by the Cold Storage Company. This fruit was put into cold storage on the 9th of February last. Forty-eight days thereafter it was taken out and repacked in the presence of disinterested parties, and each orange and lemon was found to be perfectly sound. At the time it was taken from the warehouse it was removed from a temperature of 48 degrees to a temperature of 70, and during the day this was increased to 80 degrees.

This fruit was repacked at that time and kept in an ordinary packing-house, subject to climatic changes for two weeks, when it was placed on exhibition for the benefit of the State Fruit-Growers' Convention.

This fruit we find to be at the present time in a perfect state of preservation, and from its appearance we should judge it would keep yet as many days from the time of being taken out of cold storage as it would have kept from the time of being picked, if it had never been put in cold storage.

The attention of the committee was also called to some Malta Blood oranges, which had been in cold storage for over two months prior to being taken out three days ago for exhibition purposes. These oranges showed a deep blood-red pulp and rind in excess of anything of the kind ever seen by us before on this coast. It is a well-known fact that the blood-red appearance of this orange only makes its appearance as the fruit ripens and matures. This deep blood-red appearance of this fruit is therefore evidence that under these cold-storage conditions this fruit has ripened and matured in a degree not possible under other circumstances.

The Riverside Washington Navel oranges taken from the cold storage exhibit, having been 48 days in cold storage and 17 days out, show a solid appearance, a tender and juicy pulp, and fine flavor unsurpassed by any fruit of the kind kept under other conditions.

The committee were shown letters from various prominent fruit houses in Chicago and other Eastern cities showing that fruit shipped East from Riverside this season under the cold-storage process had come to hand in excellent condition, and urging that fruit growers and shippers avail themselves of this system as a means of guaranteeing the safe arrival of their fruit at the point of destination in good merchantable condition.

If this system of cold storage will do what is claimed for it—and under all known rules of evidence your committee is forced to the belief that it will—the advantages to be derived therefrom are not confined to citrus fruits, but perhaps its greatest benefits are to be found in its application to the shipment of more perishable fruits, such as grapes, apricots, peaches, pears, the small fruits and winter vegetables.

The field of practical operations in this line is virtually unlimited. When the risk of shipment is reduced to the minimum, a small margin of profit will satisfy dealers, the producer will get a good price and the consumer will still get his luxuries at a fair figure, and the consumption will be increased many fold, still further increasing the profits of our California fruit-growers and gardeners.

Cold storage will, in our opinion, revolutionize the fruit industry of the Pacific Coast. It will enable the producer to ship his fruit by slow freight at $200 a car instead of paying $500 a car for express time. Here is a saving of $300 a car less cost of treatment. It will reduce the risk of shipment, thus enabling the selling of fruit at a lower figure to the Eastern consumer, and it will thus place choice California fruits within the reach of the Eastern masses instead of the wealthy few.

It is claimed by the Cold Storage Company that the success of the system depends upon its intelligent use; that if the fruits are kept in too cold a temperature the system will fail. If the fruit on removal from cold storage is taken out when at a too low temperature, the fruit will sweat and decay will follow. Before the removal of fruit from cold storage to a warmer outside temperature, such fruit must be prepared for removal by raising its temperature to a certain point to prevent sweating. The failure to understand and apply this principle may have been the cause of the failure of cold storage in some cases to give satisfaction.

The cost of cooling citrus fruits for market is at present $60 per car. The fruit is shipped in the Tiffany refrigerator car, which is iced to keep a uniform temperature while in transit over desert and mountains. These cars are so constructed that they will pass through winter blizzards without a material lessening of the inside temperature. On arrival of fruit at place of destination, it can be placed in cold-storage warehouses and kept until the market calls for it, or it can be marketed at once.

We recommend the system to the careful study of the fruit-growers of the State.

L. M. HOLT,
O. P. CHUBB,
NATHAN W. BLANCHARD,
I. A. WILCOX,
W. B. EWER.

FORESTRY.

Forests and Rainfall.

The tangle of decayed vegetation which covers the ground beneath the forest is of considerable thickness. On top it consists altogether of the decayed trunks, branches, and leaves, but it shades down into ordinary dark-colored soil at the depth of a few feet from the surface. This, the decay zone of the forest, lies between the boughs of the air and the branches of the roots. In it go on the most important actions which take place in our forests—actions which affect the history of land and sea. We shall therefore have to consider it in a somewhat painstaking way. The most evident effect of this sheet of decaying wood, and moss which feeds on the decay, is on the rainfall of the region which it mantles. When, after a season of drought, a copious rain falls upon this spongy mass, the water is for a long time absorbed in the interstices and does not flow to the river. Even in times of very heavy rain the water is slowly yielded to the streams; after a dry period of many weeks this sponge retains a good share of water. A like amount of rain falling on tilled fields or prairies slips quickly away to the rivers, and thence to the sea. The first result is, that when the land is destitute of forests it sheds water like house-roofs, breeding floods after every considerable rain, while in the forests the rain is only slowly yielded to the streams.

A second and less evident result of the spongy character of the forest-bed is that, by hindering the escape of the rain-water to the rivers, it increases the actual rainfall of the country. To see the nature and importance of this action, we must turn aside for a moment to consider the origin of the rain which falls upon the land. The original source of this water-supply is the sea, which sends into the lands a tolerably regular annual store of moisture. When this falls as rain or snow, either of two things may happen—the water may go away directly to the sea, or it may return to the atmosphere as vapor to be again precipitated as rain. The chance of its re-evaporation is determined by the speed with which it flows to the streams. From a treeless region it rapidly escapes; in an extensive district of virgin forest it may again and again pass from earth to air, and from air to earth.

The columns of vapor, which in times of summer rain may be seen ascending from every great wood, afford visible evidence of the effect of forests on rainfall. They also may show the observer some of the most beautiful phenomena of atmospheric circulation. In a summer rain-shower the air above the trees becomes much cooler than it is in the recesses below their tents of foliage. This heated air within the wood seeks to rise, and escapes in great columns wherever there is a wide gap between the branches. As soon as it attains the cooler level above, the moisture is condensed, and the air, before transparent, becomes charged with steam. To replace this ascending air, a broad current drifts toward the emerging streams of vapor, commonly from the higher parts of the forest, where the air, owing to the elevation of the site, is cooler than in the lower levels.

This repeated passage of the moisture from earth to cloud, and from cloud to earth, greatly increases the amount of force which the rain applies in its falling drops to the earth's surface; but the rank vegetation protects the surface from the erosion which it would otherwise bring about. Even the forest-clad hillsides of the Cumberland mountains, where the soil lies on declivities of great steepness, suffer little wear as long as their natural protection is left to them. But as soon as they are stripped of the garment of wood which has been upon the region ever since, in the far-off ages, they came from the depths of the sea, they wear with great rapidity. The erosion is limited as long as they are forest-clad to the stream beds, and there is hindered by the innumerable obstacles of the fallen trees and entangled driftwood. The brooks which are strong enough to clear their beds and cut into the earth and rock, are few in number; we may often, on the flatter ground, find tracts of a square mile or more in area in which there is not a single stream that ever assails the surface of the earth. As soon, however, as the forest mat is removed, the surface becomes seamed with channels; they often, on the deforested surface, increase one hundredfold in their length, and more than that measure in their destructive power. Relieved of all restraint from fallen timber, or the close-knit roots which enmesh the earth, they sweep the precious soil away toward the sea. In a single day a tilled field may lose from its surface more soil than would be taken from it in a century of its forest state.—PROF. N. S. SHALER, *in Scribner's Magazine.*

Trees for the Upper San Joaquin.

What trees to plant for forest or for adornment of streets or dooryards in the different parts of the State is an important question and one which must be answered by one having knowledge drawn from local observation. We like to place upon record local experience for immediate service and to aid the future compiler in the preparation of general statements. We find, for example, in the Bakersfield *Californian*, a letter signed R. A. F., giving a descriptive list of certain trees which are growing in that part of the San Joaquin valley. We quote as follows:

Deciduous Trees.

The Texas umbrella tree is probably the best of all deciduous shade trees for this county. It is a rapid and symmetrical grower. The leaves are feathery and of a dark green. In the spring the tree is covered with blue colored flowers. It is entirely different from the China umbrella tree and is a great favorite in Fresno county.

The California black walnut is one of the finest native Californian shade trees. A few specimens may be seen in town, and those who have planted them have done much to improve the appearance of their residences. It is very hardy and is a more ornamental tree than the Eastern black walnut.

The acacia of Constantinople (*Acacia julibrissin*) or silk tree, is one of the handsomest shade trees of Southern Europe; has beautiful foliage and flowers like long silk tassels, and is well adapted to our warm climate.

The umbrella locust is a very fine shade tree, of rapid growth, shaped like an umbrella, and needs no pruning.

The *paulonia imperialis* is a magnificent, tropical-looking tree with enormously large leaves and flowers.

The tulip tree, the poplar of the East, is a rapid-growing tree with tulip-like flowers.

The silver-leaved maple, the English and French elms, the golden-barked ash, the European linden and some of the finer kinds of locusts, are all beautiful deciduous shade trees, and any of them are beyond comparison superior to the present dreary tree growth of our town.

Evergreen Trees.

The true acacias are very desirable trees, having beautiful foliage and very fragrant flowers.

The pepper tree is a very popular tree in Los Angeles, and specimens of it may be seen around Sumner and Bakersfield. If well cared for it is a very beautiful semi-tropical-looking tree.

The Japan camphor tree is one of the handsomest and most interesting evergreen shade trees that can be grown. The Japan cinnamon tree is also very desirable.

The loquat, or Japan medlar, is becoming a very popular ornamental evergreen, has beautiful foliage, fragrant flowers and a delicious fruit.

The eucalypti are strong growing trees, have a semi-tropical appearance, and if well cared for make a finely shaped tree.

The flowering gum is one of the handsomest of flowering trees, having a bright scarlet flower.

The *magnolia grandiflora* is the finest of all American evergreens, is of slow growth during the first few years, but afterward quickly develops into a magnificent tree. The leaves are large and of a brilliant green, and the flowers are large and sweet-scented.

Of cedars: The cedar of Lebanon and the Himalaya cedar (*deodara*) are exceedingly handsome and succeed admirably in this climate. They make fine trees and are vastly superior to the funereal-looking cypress.

There are also various nuts and fruit trees which are as valuable for their shape and ornamental appearance as for their fruit, of which are the Italian and Japanese chestnuts and persimmons, olives, pecans, some kinds of peaches, the pessardi or Persian prune, the white celeste fig, and of course oranges and lemons.

THE STABLE.

A San Benito Horse Farm.

The Hollister *Free Lance* gives a description of B. F. Ingels' horse farm, where it says "some of the finest horses in San Benito county are bred and raised." We quote as follows from the description of what a reporter saw during a recent visit to the ranch of Mr. Ingels, four and one half miles east of Hollister:

A farm of 680 acres situated inside the line of foothills separating the Hollister and Santa Ana valleys, inclosed by a strong wire and board fence, divided by cross fences into convenient-sized fields, containing from 40 to 100 acres; three immense barns, having a storage capacity of more than 400 tons of loose hay, and fitted up with stalls and feeding stanchions, by which 130 horses can be fed and stalled at one time; a neat, comfortable dwelling-house of 10 rooms, and outbuildings enough to form a moderate-sized village; a well-stocked blacksmith and carpenter-shop with every facility for repairing tools, sharpening plows and shoeing horses; large, roomy sheds for farming tools, and, in fact, a place for everything and everything in its place.

A fine stream runs through the ranch the entire year, furnishing an abundance of water for stock purposes, while a large windmill fills the tank which supplies each barn, as well as the house, with the same useful element. Mr. Ingels farms some 400 acres of his ranch, and last year raised more than 6000 centals of wheat and barley, to say nothing of the 350 tons of hay which he puts up for the use of his horses. But it is not alone as a grain ranch (although as such it is far above the average) that we speak of Mr. Ingels' place; it is as a home for the horse that we wish particularly to describe it.

Mr. Ingels, for years, has made the breeding of horses his specialty, and that he has succeeded in this industry is attested by the large sales he makes each year. There are at present on the place 125 horses, including four stallions, two of which are thoroughbred Percheron stock, the other two being unusually fine specimens of crossed breeds. Of the horses, 50 are brood mares, and it is safe to say that for size, symmetry and all other qualities that go to make up the best specimens of this class of stock, no finer horses than those owned by Mr. Ingels can be found in San Benito county.

Thirty-two colts, two and three years old, occupy one of the fields. In the adjoining field are 30 yearlings. These colts have all been carefully handled and are perfectly docile. No pleasanter sight can be imagined than that presented by one of the stalwart sons of the proprietor, who, stretching his listless length on the green sward, and surrounded by the equine youngsters, played alternately with one and another of the 30 beauties that crowded upon each other in their eagerness to come within reach of his caresses.

Mr. Ingels is a firm believer in the utility and profitableness of the heavy draft horse. His chief argument for the raising of this class of animals is seen in the difficulty which presents itself when an effort is made anywhere to obtain a fine team of horses suitable for heavy draft work. A good team of these animals always commands at least $400, and at present they are difficult to find at a sum far exceeding that amount.

A Kern County Breeder.

EDITORS PRESS:—In a recent conversation with E. M. Roberts, at his farm and residence 2½ miles northwest of Bakersfield, we took note of some remarks on the breeding of the horse which we deem worthy of mention.

He believes in breeding our common mares of small or ordinary size to large horses. Deems this more practicable, at present, than the method of grading up, in the matter of size, by breeding large mares to small horses, as it is easy to obtain the large horses for breeding purposes, while the mares of small or ordinary size are already on hand.

The most profitable breeding in this country is from our mares of ordinary size, by Norman horses, the product being mares of good size making suitable mothers for large mules. These large mules, at the proper age, will always sell well; in fact, are in demand. In this business he deems the breeding of first-class jacks of importance.

Mr. Roberts is proving his faith in this course of breeding by actually working by the above program. He keeps quite a number of brood-mares, some of which are of good size, and is adding to the lot. He keeps two good jacks at present, and a fine Norman stallion, imported from France, of 1700 pounds weight.

Kern Co. McD.

THE VINEYARD.

Sulphuring and Suckering.

At the last meeting of the Santa Clara County Viticultural Society there was a discussion on sulphuring and suckering which is timely and interesting. We quote from the *Mercury* report as follows:

Mr. Gibson considered the French sublimed far superior and cheaper in the end than the California variety. His experience had shown that the result was better by applying the sulphur early in the morning than in the middle of the day.

Mr. Daggett differed with Mr. Gibson in regard to the superiority of the two kinds of sulphur. He always used the California variety. He found that the cheaper sulphur went as far as the sublimed. He had visited vineyards where the French sublimed sulphur had been used, and could see no advantage gained by them. If there was any mildew on his vines last year he failed to observe it. If there had been any danger of the disease the California sulphur had warded it off.

Secretary Combe said that if there is such a thing as California sublimed sulphur he would use it, but he did not believe there was. The process of subliming made the sulphur finer than flour, and when applied it would permeate all parts of the foliage. Experts say that the very finest sulphur will be found the cheapest in the end. He was satisfied that the California sulphur was fully as strong as the other, but the mode of its preparation was not as good.

Captain Merithew thought the best qualities of California sulphur were the most economical. One year when his vines were infested with green bugs he applied French sulphur without effect. When he used the California variety the insects succumbed. His experience had shown that California sulphur was stronger and lasted longer. He had also found that the fumes of the sulphur arising from the ground kept the frost off the vines. In his opinion too much sulphur was used at one application. It should be used in less quantities and applied more often. He had bought a carload this year in conjunction with Mr. Pierce.

Mr. Feeley used California sulphur some years ago and found it to contain foreign matter, and to be very coarse.

Captain Merithew said that the sulphur was prepared much better now than a few years ago, and Mr. Pierce never used any other. He generally used about 8 barrels on 40 acres, but this year he would use about a ton on 40 acres. The greater part of what is called French sulphur really came from Italy, Belgium and other places, being used as ballast for ships. He considered the best time to sulphur just before the vines came into blossom.

Mr. Feeley said he applied the sulphur with a bellows, which method he found most economical.

Captain Merithew did not believe it wise to apply the sulphur when the vines were wet with dew. The sulphur would settle in the hollows of saucer-like leaves in large quantity and eat holes in. When sulphur was put on late in the season it should be applied very lightly, otherwise it could be detected in the wine. It also checks fermentation.

The question of suckering was next discussed.

Captain Merithew said he generally suckered the crowns, but it required good judgment to do the work properly. There was no question about the propriety of taking off all the suckers that came out below. The Muscats were about the first vines for late suckers. Sometimes the spring shoots bore fruit.

Mr. Daggett said one year he began cutting off the suckers close to the vine when they first appeared. He thought the work was all done, but suckers came out again in May. This was on the Chavigneau varieties.

Captain Merithew had found that long pruning did a great deal to keep back suckers on Chavigneau and other vines that needed long pruning. He also found that with long pruning the crop could all be had at one time.

Mr. Combe—Clarence Wetmore stated that with long pruning he got all his grapes in one crop, there being no sign of a second crop. Spurs enough should be left to absorb the surplus sap.

Captain Merithew said he never suckered the Muscat above the crown because they don't get shade enough and the surplus sap should be allowed to go to the top.

Mr. Combe had found that a wise plan.

A Fresno Expert on Sulphuring.

Capt. Ch. de St. Hubert writes to the Fresno *Republican* as follows: As it might be interesting to many of your readers to know when sulphuring the vines is needed, I have the pleasure to detail the subject. It is now time to observe the vines and apply the curative named, as up to date I am not aware that a preventive has yet been discovered for the mildew of our Pacific southern coast, and that used more successfully yet is the sulphur; also a compound of sulphur and lime, which Mr. J. F. Allen describes thus: Boiling three pounds of the flowers of sulphur and lime in six gallons of water until it is reduced to two gallons. When settled, pour the liquid in bottle for use. One pint of that solution in 12 gallons of water is strong enough, and is good for the vines and the peach trees. Attach to the hose of a pump a small nozzle, and the liquid is diffused over all parts of the diseased vines. But the flowers of sulphur alone is less labor and cost, and about as good. I would then use the sulphur (flowers of) applied at an elevated temperature, not under 75 degrees Farenheit, if possible.

The heat favors the production of the sulphur fumes which are rapidly given off when the temperature ranges high, and also 75 degrees Fahrenheit is the best temperature to meet the development of the fungus, which is destroyed more rapidly by timely application of sulphur. If it reaches 100 degrees Fahrenheit during the day, one can spread the sulphur on the ground under the vines and it will destroy the mildew.

The time when sulphur should be applied is early in spring, at the first appearance of the mildew, and most effective when the application is made on a bright, warm day, when the dew is all evaporated; and a second application will complete the cure, if made 30 or 40 days after the first sulphuring. In vineyards much affected with that disease, it would be best to first sulphur when the young shoots are four inches long, the second time when the vines are in blossom, and third, some time after the turning of the berries. But I should insist upon the sulphuring at the time of blossom, for the flowers are almost certain to be rendered sterile if attacked.

THE LUMBERMAN.

California and Oregon Woods for Decoration.

The natural woods of California are beginning to be largely used for decoration—for the interior finish of expensive residences. They have been used quite extensively, indeed, for eight or ten years, both at home and abroad. The woods most generally used are the redwood, the white cedar, the laurel and the sycamore. The redwood takes the lead for general use, and is largely used for interiors. It will take a good polish, and is the best cheap wood for finish that California produces. For general use, wear and staying qualities it has no superior in any forest in the world. The laurel is smooth, firm, beautifully figured, and altogether a most desirable wood. The value of the sycamore as an ornamental wood has only quite recently become generally known. Its grain is much like that of the Eastern beech—has waving lines close together. At the East it is called buttonwood. It is quite tough and strong, qualities which give it value for veneering. At several of our Mechanics' Fairs have been shown excellent exhibits of California fancy woods—plain and polished—which have greatly surprised people, both at home and from abroad, who have not familiarized themselves in regard to what California forests can do in the way of such desirable products. A similar exhibit was made by the C. P. Railroad Co. at the Centennial Exposition in Philadelphia.

Oregon Woods.

Oregon is also able to make a fine display of woods. The Oregon ash is a very pretty and useful fancy wood. It is figured with concentric curves and admits of a good polish. The maple of that State is also beautiful. It looks very well in furniture and is beginning to be sought after for such purpose by manufacturers in San Francisco. Light yellow in color, its surface is covered with small, wavy lines. A somewhat enthusiastic writer says: "It reminds one much of a sheet of burnished gold, and when the gaslight plays upon its burnished surface the effect is grand." Still, like most of the Oregon woods, it is but little known. Indeed, aside from the world-renowned redwood, the real beauties of either Oregon or California woods are but little known. They are known only to the few who have become sufficiently interested in them to make them a study. It is only such persons who are anything like fully aware of the undeveloped industry which lies dormant in the beautiful figured woods of the Pacific Coast.

Fancy Figures in Woods

Are sometimes found by those who have a taste and an eye for such things. The writer above quoted describes several such specimens as follows: "Specimens of fancy woods are very often secured in which the lines assume some well developed figure, such as a head or an animal. I well remember a piece I have in my museum now, in which the head of a child is distinctly shown. It came from an old pile that had been for years stuck in the mud, supporting Donahue's old building on First street. I have a piece of California walnut which was exhibited at the fair, in which, as plain as day, can be seen the figures of a man and woman. They are side views. The man is apparently as naked as when he was born, but the woman is attired in complete walking costume. The specimen is called 'Adam and Eve.' I have also a splendid specimen of California laurel, in which there is a bear's head. But the figures are almost as many as are the specimens. Heads, bodies and even trees are also figured in the woods. I have seen one piece in which there were two birds."

Beautifully Figured Woods.

Aside from woods of ordinary or normal growth, the coast abounds with those unique specimens of nature's fancy products, such as burls, knots, etc. These are quite common in the redwood. The laurel often presents a curious abnormal growth of this description. A recent writer in the *Chronicle* describes it as follows: "A curious fact about the laurel is that the tree often looks as if a great tree had grown and then melted down and another tree had grown from the residue of the first. This curious growth of formation makes a large ground burl, from the center of which the tree grows. A splendid specimen of such a formation may be seen in Laurel Grove, near San Rafael. The burl of that tree is fully 15 feet in diameter, and the tree grows from the center of it."

A good specimen of figured wood, like a burl, or even a somewhat peculiarly marked natural growth, is always in demand for various purposes of decoration. Of course such woods must be cut in a certain way to bring out the figure to the best advantage, and it takes much judgment and experience to do such work—to know how to cut and treat the wood so that the figure may be brought out and shown to the best advantage.

The Philosophy of Such Growths.

The same writer speculates upon such abnormal growths as follows:—"I find that the prettiest figures are generally on the wood of trees which grow in a marshy or well-irrigated place. I think that the bark outgrows the twig and will therefore wrinkle. When the twig grows the wood will, of course, fill up all the wrinkles and cavities in the bark, and the surface will therefore be marked and riffled. This is what makes the figures on the wood. Sometimes, also, the bark runs through the heart of the tree. This is a fact not generally known, but to it I attribute the existence of so many hollow trees in the forests of California, for the bark will be ignited from any prairie fire, and burn through the core of the trunk, leaving the tree hollow."

CALIFORNIA REDWOOD.—A writer in the Sonoma *Democrat* gives an interesting letter on the subject of redwood. He says that Sonoma, Humboldt, Mendocino and Santa Cruz counties have a monopoly of this wood, the first in commercial importance on the Pacific Coast. Oregon and Puget sound with their magnificent forest of pine have none, and in fact there is very little outside of the four counties named anywhere else in the world. The redwood is a close-grained timber, splits true, and is in color like the Eastern cedar or cypress. It works beautifully under the plane, and will stand more fire and is easier quenched when on fire than any other wood; it has the merit of retaining its place and shape without warp or shrinkage; its durability is unquestioned; for fence-posts and railroad ties it is the best-known wood, resisting the action of both air and water with matchless durability. The redwood belongs exclusively to the foggy coast regions, and the foliage possesses the peculiar power of condensing this mist and converting it into rain, thus supplying the roots which sustain the mighty bole of the tree with moisture during the long and rainless months of summer. Few persons can appreciate the grandeur of these redwood forests. The reader will bear in mind that there is yet in Sonoma county a vast amount of tan-bark and laurel, and millions of cords of hardwood of which no estimate is made. A statement by sections of timber suitable for sawing in Sonoma county places the total at 740,000,000 feet.

THE STOCK YARD.

Jersey Values at the East.

From the *Country Gentleman* of April 28th we compile some interesting statements concerning the values of Jersey cattle as shown by recent public sales. The previous week Messrs. Peter C. Kellogg & Co. held their eighth annual combination sale in New York, the animals being consigned for sale by a number of breeders. The summary of the sale is as follows:

23 bulls, average	$112 17	Total	$ 2,580
326 cows, do	106 37	do	34.676
349 animals, average	$106 75	Total	$37,256

This sale gave data for the award of the Breeders' Cup for 1887. Concerning this contest, the auctioneers write to the *Country Gentleman* as follows:

The competition for the annual Breeders' Cup, provided by subscription for the best average upon five animals bred by any one consignor to the annual special combination sale held by Peter C. Kellogg & Co., in New York, was won this year by Dr. Ehrick Parmly, of Oceanic, New Jersey. Though prices ruled low throughout the sale, there was more general competition for the cup this year than ever before. This was owing to two reasons. First, a greater number of consignors, by reason of being longer in the interest, were able to be represented by good animals of their own breeding; and second, there was no overreaching boom for any one strain to the exclusion of others that enabled the one to distance its competitors hopelessly. Approved strains of blood were preferred to chance animals, but always with the proviso that the strains were represented by a superior animal. Blood no longer sells high unless the animal indicates by individual quality that the blood has told. Nevertheless, the results of this sale where prices were determined more than in any previous one by the individual merits of the animals sold, is a striking illustration of the merits of breeding from a superior family as well as from a good individual. A few years ago the cow Jersey Belle, of Scituate, attracted great attention by making the largest yield of butter for a year that had ever been known, viz.: 705 pounds. She was one of the most marvelous natural cows ever known, as her great yield was strictly an unforced product, and with no scientific manipulation, either of the cow or of the milk, which was set in open pans. Very little of her blood could be had by ambitious breeders, as Mr. Ellms would not part with her daughters, and her bulls had only been bred upon grade stock when public attention was attracted to the cow. Dr. Parmly, Mr. A. B. Darling and Mr. Orestes Pierce each secured a bull, and finally Col. H. S. Russell secured a heifer, which he afterward sold to Mr. Orestes Pierce at a large price. Others who were first charmed by the great merits of the old cow afterward took a "sour-grapes" view of the subject, and it was not long before she was talked about as a marvelous instance of individual merit that did not reproduce itself—no "prepotency," as the saying goes. But Dr. Parmly and Mr. Pierce each held on to their cattle and bred the blood in-and-in. For the first time, the doctor sold some of the best results, showing some superb cows with one to four crosses of the blood of Jersey Belle of Scituate. Apart from the doctor's consignment, it happened that others sent very choice cows of the same strain, notably three sent by Mr. Richard Ingraham, of Hempstead, Long Island. Altogether the Scituate blood made a highly favorable impression. The best seven averages on five animals bred by the consignors were as follows:

DR. EHRICK PARMLY.

Roscita, cow	$ 430
Ocean Lily, cow	390
L'Ainee, cow	350
Mioscita, cow	170
Sunny Gazelle, cow	60
Total	$1400
Average	280

The other averages to complete the seven mentioned above we give in condensed form as follows: D. F. Appleton, $258; V. E. and H. H. Fuller, $232; Green Mountain Stock Farm, $224; V. E. Fuller, $218; Mrs. E. M. Jones, $208; Nathan Robbins, $194.

Messrs. Kellogg also say in their letter: Several of the consignors got higher prices for animals not bred by themselves than for those used in the above averages, but as the cup average is computed upon animals bred by the consignor, those not so bred are excluded. It is the home-bred animal that measures the breeder's skill. The idea of the Breeders' Cup originated with Mr. D. F. Appleton in 1880, and has done much to stimulate the consignment of choice cattle. It will be noticed that Mr. Appleton was second competitor for it this year, and has on former occasions 'come within one of it.' He has been, with the exception of one or two years, the chairman of the committee who received the subscriptions, and provided the cup, which on this occasion was a heavy silver tankard."

California's Interest in the Above.

The mention of the Scituate blood above has especial interest here, because this blood is strongly represented in the Yerba Buena herd of Henry Pierce of this city. He has two bulls now in use which are of the blood of old Jersey Belle of Scituate, and there is a large number of females of the same breeding. This blood is being distributed on this coast by Mr. Pierce's sales—as for example, the Scituate bull sold for $1000 to the late Mr. Bliss for the Petaluma Stock Association. As we have said before, Mr. Orestes Pierce mentioned above is a relative of Henry Pierce, and they are mutually interested in the ownership of this excellent and popular strain of blood.

SIMPLE MEASUREMENT.—The approximate breadth of a river, or other stream, may be determined by means of the brim of a hat or the peak of a cap, and this can be done by a boy as well as a man. The person desiring to ascertain this fact must place himself at the edge of one bank of the river and lower the brim of his hat, or peak of his cap, till he finds the edge just cuts the other bank; then after placing the hand under the chin, he must turn round steadily till he faces some level ground on his own side of the river, and observe when the edge of the peak again meets the ground. The measure of this distance will be very nearly the breadth of the river.

UTILIZING THE SPARROWS.—Here is the way they make sparrows useful in Germany: Long troughs, placed at the eaves of houses, are occupied by the sparrows in building their nests. When the young are hatched and the mother goes out to procure food, wire screens are placed over them, with interstices large enough to permit the passage of food in to the younglings but too small to allow them to escape. As soon as they are large and plump they are killed, and make a very desirable article of food.

OLIVE OIL FOR LUBRICATING PURPOSES.—Put pure olive oil into a clear glass bottle with strips of sheet lead, and expose it to the sun for two or three weeks, then pour off the clear oil, and the result is a lubricant which will neither gum nor corrode. It is used for watches and fine machinery of all kinds.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Grange Picnic at Danville.

The weather on Friday of last week was decidedly unpleasant in Alameda and Contra Costa counties. In some parts, brisk showers of rain fell, and in others not enough to settle the dust. Saturday, however, proved one of the pleasantest days of the season, and Grangers, farmers and their friends wended their way to the picnic grounds at Danville in great numbers.

Four to five hundred teams and vehicles, gathered together from all parts of the country, were strung along the highway for a great distance, affording a very novel sight. It was estimated that at least 1500 people were in attendance during the day. It was undoubtedly the largest gathering ever held in that part of Contra Costa county known as San Ramon valley. The picnic grounds consisted of three good-sized lots, inclosing the Grange hall, Presbyterian church and schoolhouse. These lots were shaded and ornamented by well-grown locusts in full, snowy bloom, looking beautiful and adding sweet fragrance to the occasion. The speaker's stand was handsomely decorated with American flags, but the greatest attraction of all was the

Decoration of Danville Grange Hall,

Owned, together with the large lot on which it stands, by the Grange. Most beautiful, complete and appropriate were the decorations. All the Grange implements were accurately wrought in immortelles, placed on the wall farthest from the main entrance, including the plow, axe, spade, hoe, harrow, pruning-knife and sickle. Above all these was a crescent and stars of the same flowers; beneath, these words:

Welcome Friends,
P. of H.

All this was the work of Mrs. William Z. Stone, Flora of Danville Grange, who had charge of the decorations, assisted by many and willing hands—sorry we know not the names of all. Beneath stood the piano, fringed with locust blossoms and wreathed with roses, while several vases holding beautiful bouquets were placed along its top. Festoons of roses drooped gracefully from either corner of the ceiling to the center, where they were caught up and finished by a long pendant of white flowers and bright marigolds, from which hung a huge ball of many-colored roses. The chandeliers were fringed with locust blooms, while each cup held, instead of the usual lamp, a bunch of roses. The windows were framed in festoons of wheat and wild oats. Wreaths were scattered all along the walls, while at each side of the main entrance were beautiful triangles of flowers, the work of Miss E. Wood. Over this door were sheaves of wheat and pampas grass. Over one of the rear doors was this motto: "Who comes here?" and over the other: "Good luck to all." Garlands of evergreens and flowers hung suspended in each corner, from ceiling to floor. The whole effect was most charming! Many, varied and constant were the expressions of delight. Great credit redounds to the able manager and her corps of efficient workers.

As the different delegations came in they were greeted in hearty Granger style by those who had previously arrived. A little before noon the call was made for all hands to gather around the speaker's stand and listen to and take part in the following

Exercises of the Day.

1. Instrumental music.
2. Remarks by the President of the Day, Judge W. C. Blackwood.
3. Address of welcome, by Hon. Charles Wood.
4. Oration, by Dr. W. W. McKaig.

The president announced, by request, that hot tea and coffee would be furnished free to all, and in a short time the numerous tables, provided for the convenience of the attendants, were well loaded and abundantly supplied with all the good things that the heart could expect or desire on such an occasion. The scene, at this time, was one of rare occurrence, and could not fail to please the eye and cheer the heart of all who had the privilege of overlooking it.

After an hour or more spent in disposing of lunch, the assemblage was recalled to the stand to listen to volunteer speeches from leading Grange officers. Dancing was freely indulged in by the young people, in the Grange hall, from noon to night, the music furnished by Blum's band, from San Francisco, being declared excellent.

We are enabled to give, in substance, some of the speeches listened to during the day. We regret that we have not fuller reports of several of them. First came the very appropriate

Address of Welcome by Hon. Chas. Wood.

Farmers, Guests, and Fellow-Patrons.—LADIES AND GENTLEMEN: To me has been assigned the privilege of offering greetings and a cordial welcome to this, the Second Annual Grange Picnic in Contra Costa county, to speak the prologue to the play, as it were.

This pleasant gathering is the outcome of a wish on the part of the Patrons of Husbandry of Alameda, Solano, and Contra Costa counties, to meet together, at least once a year, to renew old and make new acquaintances; to interchange the courtesies of our fraternity; to compare notes and stimulate thought and action by a few hours of recreation and social intercourse.

At first glance, it would seem that a point more generally accessible on the line of some railroad encircling the county would have been selected for this occasion; but further reflection suggests the reason of the choice of this quiet spot to be the desire to get away as far as possible from the noise and confusion of the busy haunts of men; and certainly no more secluded and pretty place, if I may be allowed to say it, could have been found within a day's ride of San Francisco. As was said not long ago, by Worthy Master Baldwin, San Ramon valley and vicinity is as little known to the people of the State, generally, as if it were in Africa. This is the people's loss and not *ours*, who live within its precincts and have reveled for years in its genial, health-giving climate, and enjoyed the unfailing products of its soil. The topographical and natural beauties of this region cannot have escaped the eye of any of our visitors, whether coming from the east, north, west, or south. Farmers, more perhaps than others, need these reunions to lift them out of and away from the narrowing effects of the drudgery and isolation almost necessarily incident to farm life. The contact and attention of one mind with another, arousing to some extent the antagonisms that belong to nature, inducing thought and repartee and development, is the best educator, and no one can be said to be truly learned and wise who has not had frequent and familiar association with his fellow-beings in a larger sense than in the immediate affairs of the home circle.

Webster defines the word picnic, in its present use, as "an entertainment carried by a party on an excursion of pleasure into the country." *Our* Order amends this definition by adding the words "and instructive," and to this end it provides a feast for the mind as well as the body, and to which on this occasion all are invited.

The limitation of the laws of nature, and the laws and customs of organized society, environ our lives as with a high fence, over which it is impossible to leap; hence let us within this environment seek as much contentment, satisfaction and happiness as lies in our power, without being dissatisfied and envious of what is going on outside.

We wish you to lay aside ceremony and cold formality, and enjoy yourselves in a fraternal manner. "Eat, drink, and be merry."

Again we extend to you all a most sincere and cordial welcome, trusting and hoping that the Danville Union Picnic of the Grangers will be long remembered as one of pleasure and profit.

President Blackwood expressed regrets that Dr. Stebbins was unable to be present as the orator announced for the occasion. On account of the death of one of his old parishioners, the eminent pastor remained at his post of duty to perform the last sad rite for his departed disciple. In his stead

Dr. W. W. McKaig

Had kindly consented to favor the audience with an address, for preparing which he had but a few hours. This address, published in another part of to-day's issue, was heartily received and commended by the assemblage.

Upon calling the audience together after lunch, Judge Blackwood made some excellent remarks, and was followed by

Hon. Wm. Johnston,

Master of the State Grange, who declared that he had attended several Grange picnics during the three days past, and would rather like to continue attending such picnics every day. He spoke of the necessity of the Grange working for and receiving more members; that special efforts should be made to secure young members, mutually for the benefit of the Grange and for the education and advantage of young men and women, who join the ranks of the Order.

Brother Johnston gave some very interesting information concerning the transactions of the last session of the National Grange, and especially referred to the action on the Woman Suffrage question. He explained that the final vote on that subject was not a fair expression of the popular feeling and will of the members of that body. He believed that the representatives were really largely in favor of giving women enlarged social and industrial privileges and voting powers. He also spoke in strong words of the action of our own State Grange on the same subject, and predicted that, at another session, the popular will of the Grange would be shown by an emphatic expression in favor of additional rights and legal privileges for women. He believed the day had come when Americans should take more pride in their elective franchise privileges, should rescue and protect the ballot-box from the abuses with which it is threatened by un-Americanized foreigners and careless, ignorant and indifferent voters. The speaker urged all, especially the young, to avail themselves of the superior privileges of the Grange and our progressive age for self-advancement. His speech was followed by applause.

Then the solid Yuba City Granger and sturdy champion of the anti-debris cause,

Hon. Geo. Ohleyer

Came forward in response to numerous calls, and having been introduced by the chairman, spoke substantially as follows:

He had desired to attend this picnic from the time it was first announced, but owing to other duties and engagements had entertained little hope of being able to come. Having had business in San Francisco, however, the past few days, and finished it Friday afternoon, he had an opportunity to stop over on his way home. He said he was wholly unprepared to address the audience, in fact, had never done such a thing, and judging from the array of talent advertised and present, and the excellent speeches which had been made already, he thought it scarcely necessary to do more than show himself.

He had resided across the bay in Solano county, 34 years ago, and in those days he heard of the beauties of the interior of Contra Costa county, of Pacheco, San Ramon, and other valleys, but language failed him to express his delight at their beauty and fertility, and their romantic and picturesque surroundings, and, more than all, the thrift and contentment everywhere visible. He had frequently been in sight of and along the borders of the county, but never in the interior, and was glad he had embraced this opportunity to make this visit.

Regarding the Grange, his predecessors had spoken of the Order, but much more might be said and not exhaust the subject. It is a fraternal Order, and none stand in greater need of social advantages than the American farmer. It is also an educational institution, in which all can learn something. As already remarked by other speakers, the knowledge of individuals becomes the common property of the members. Imagine the spread of intelligence, when the agriculturists everywhere assemble once or twice a month and interchange opinions, compare their experiments, and share their joys and sorrows.

No one, be he ever so able or intelligent, has a moral right to withhold his contribution to the general fund, or hold himself above his surroundings, for he would certainly feel very lonesome; but it is his duty to bring his neighbor up to his standard. No man is so learned or experienced but he can learn something from the humblest object.

Speaking of farmers as legislators, and of the late Legislature, he said: "Your Chairman, Judge Blackwood, was selected by the late State Grange as chairman of a legislative committee, and as such he felt disappointed in the result, and was disposed to criticise the farmer and Granger members. He is right. The members deserve it; and yet we must remember that they did not control the body, were fully up to the average, and should not be held responsible for all the schemes. To make their numbers effective, they must combine as do the city members, irrespective of politics. The late Legislature was very expensive to the people, which was all wrong and should be condemned; and yet these clerkships and other useless legislative appendages were trifling in comparison to the great expenditures in enlarging and building State prisons and asylums of various kinds; there is where the millions go. The last of these costly institutions was the Asylum or Home for Feeble-Minded Children. This, like all the other institutions, was good in its way, and much can be said in their favor, but the question is: Where shall the line be drawn? A solicitor for State aid came to me and set forth in glowing terms the great good that his Home had done for the feebie-minded, and as a result there was a great rush for the Home, necessitating enlarging the quarters, etc." Here again, thought the speaker, it became necessary to draw the line to prevent the majority, who might be thought fit subjects for the Home, from going there at the expense of the State. Any number of families might and certainly would unload their offspring upon the State. But whether abused or not, this, like the other State institutions, is becoming a costly elephant and should be watched by the people.

A well-deserved compliment was paid by Bro. Ohleyer to his colleague in the Assembly, Bro. D. N. Sherburne, for his intelligent, diligent and upright course. During the delivery of his remarks, the speaker was frequently applauded, showing that the audience was in sympathy with his utterances.

Other Speakers.

Lecturer Daniel Flint, of the State Grange, being called upon, read an able and instructive speech, well worth publishing in our columns, although far better received from Brother Flint's frank and earnest delivery. We forego further mention, as he will, no doubt, deliver the lecture again. We can consistently recommend all Grangers and farmers to improve the opportunity of listening to it, whenever and wherever the chance occurs.

Overseer W. L. Overhiser, of the State Grange, gave what was pronounced the best Grange speech he ever made, full of earnestness, and demonstrating that he has improved his time and opportunities in recent active work for the Grange.

Hon. J. V. Webster, being loudly called for, reluctantly responded with the remark that he was not in the habit of speaking to such empty benches, and regretted to say that too often has the Grange been injured by talking audiences tired, and the benches to emptiness. The whole State Grange knows Brother Webster as one of the most able and popular Grange speakers. The loss of a good speech from one who has the confidence of the Grange in such round measure was the only thing much to be regretted during the whole occasion.

Among other State Grange officers and many active and prominent Patrons present, were Bros. B. F. Frisbie, Chaplain; J. Chester, Secretary, and editor of the *Patron;* Bros. Strentzel, Baldwin, Renwick, Jones, Dennis, and Kelsey. Sister Strentzel, who has lately suffered from illness, ventured to be present, and was warmly greeted, together with Secretary Lander and many other faithful and well-known sisters.

Bros. Smith, Loucks, Sharpe, and the Committee of Arrangements as a whole, deserve thanks for their active and successful efforts.

We have enjoyed many pleasant Grange picnics, but none which will be remembered by the legions who attended with more lasting pleasure than the Danville picnic of 1887. We regret our utter inability to do it justice in our report, but shall advise readers who can, to be on hand and observe for themselves on similar occasions hereafter.

Hock Farm Picnic.

We have received a cordial invitation to attend the Yuba City Grange picnic at Hock Farm on the 17th, with the remark that, having seen Sutter county (at the time of the last State Grange session) in its sere condition, we ought now to view it in the bloom. We know that this good invitation from Yuba City will apply to all Patrons, and we hope that large delegations will be present from all parts of the State, whether we are able to go or not; for, according to the past experience of all who have met with Yuba City Grange, no one will go away dissatisfied.

A Farm Visit.

Starting from Danville in the evening, just as the last picnickers were leaving the grounds, we drove eastward some four miles, passing along not far from the western base of Mt. Diablo. Crossing a slight ridge, our road followed the trend of a narrow and most beautiful valley. The low hills on either side were charmingly rounded and covered with bright flowers, green grass, and fields of wheat, barley, and oats.

The soil in the level portion of this valley is exceedingly deep. Upon the sides of the hills also, and even upon the tops, the soil is both rich and deep, and produces well in nearly all seasons, and very prolifically in the best. The summer-fallowed grain appears certain of yielding well the present year, while the winter sown is not nearly so good.

At the end of our journey, Worthy Master Johnston and ourself and family were hospitably received and delightfully entertained at the happy and well-ordered home of Brother Charles Wood.

Brother Sherburn owns a comfortable and valuable piece of 600 acres next west of Brother Wood. In the evening he brought Brother Overhiser to Brother Wood's, and with conversation, music, and other amusements, a most enjoyable evening was passed.

In the morning we all reluctantly bade goodbye to the Worthy Master and Overseer, who took their departure for home by a carriage ride to Pleasanton and thence by rail. We hope they both will write us how they enjoyed the picnic, the farm visit, and their ride hence through the green and fertile valleys which they passed.

Brother Wood is practicing diversified farming in a very successful and commendable manner. His dairy herd consists of some 80 excellent cows, about one-half of which are now being milked. His stock barn is large and well built, with the best and most sensible modern improvements. His dairying outfit is equal to anything of its size we have seen in the State. It consists of a De Laval cream separator and revolving barrel churn, operated by an upright steam boiler and engine. The latter is also used for sawing wood.

His storage and butter-working basement seems convenient and ample. All this looks very fine, but more delighting still is the fact that this dairy is engineered and operated to perfection by Miss Libbie Wood, who takes entire charge of the establishment, and turns out some of the best fresh butter that it has ever been our fortune to taste. Everything about the establishment seems neat and in proper order.

Another young daughter is interested in poultry, and we had the pleasure of seeing on the place over 200 pure white Leghorns, which were reported as the very best of layers and quite a profitable flock.

Brother Wood cultivates some 200 acres of grain, and seldom fails of a good crop. He prefers pasturing alternate seasons, for the purpose of resting the land, and we are convinced that his most successful practice might well be followed more extensively by farmers in this and other sections of the State.

We could not but observe with interest the careful storing of his farm vehicles and implements, which filled a good-sized barn.

A fine stream runs through the place and furnishes plenty of water for irrigating his flower and vegetable gardens, also for several fishponds, beside supplying his stock constantly with fresh and wholesome water. We commend heartily Bro. Wood's principle of encouraging his sons and daughters, by giving them a share of stock to own, care for and "accumulate" in their own names.

We cannot feel otherwise than proud of Brother and Sister Wood as fellow-Patrons and friends, for obvious reasons. His systematic methods in farm and business transactions embody so many excellencies, that it would be a benefit to mention them more particularly. We hope he will hereafter write more concerning his well-tested method for the benefit of his fellow-farmers.

From Santa Rosa.

EDITORS PRESS:—Santa Rosa Grange still grows. New members are applying at nearly every meeting. There is every reason for believing the next session of the State Grange will be more largely attended than has been any session for many years past. The members of the local Grange will spare no efforts to make the session more than enjoyable. Santa Rosa's good name will not suffer at the hands of its Grangers. Active and intelligent work is already being done. All Patrons who can, ought to attend the State Grange at Santa Rosa, the first Tuesday in October, 1887.

Santa Rosa Grange will have an anniversary reunion on the 28th of May. The program will be both amusing and instructive; a jolly company will be present, and a good dinner will be

served to members of the Order. Short speeches, select singing, racy readings, exhaustive essays and actual amusement will be furnished without money and without price. All Patrons entitled to attend will be more than welcome. No special invitations. Give the rap, grip and sign, and get the best that the country affords, is the rule at Santa Rosa. That you will come and enjoy one day at the Grange is the wish of A PATRON.

WE accord the Danville picnic large room this week, to the exclusion of other interesting Grange matter—further remarks concerning Contra Costa county will appear later.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

CROWDING CLUSTERS.—Livermore *Herald*, May 5: Vines trained upon the Chaintre and Guzot systems are fruiting very heavily. Frank Fowler counted 135 bunches on one of his five-year-old Chaintres a week ago. They were big bunches, too. C. G. Sperry has a five-year-old Rose of Peru vine trained on his piazza, which, at a low estimate, has set 500 fruit bunches.

APRICOTS GALORE.—On a three-year-old apricot tree on C. G. Sperry's place this week, we counted 20 half-grown apricots within a space of four inches on one branch. D. G. Paul has picked 600 apricots from a four-year-old tree on his place this season, and there still remain all it can properly mature.

FLOURISHING GRAIN.—W. H. Wright made a tour of the hills northeast of Livermore this week, and states that, in the country between the Doolin canyon and Tassajera creek, he never saw a better stand of grain than is now on the ground. The old Martin horse pasture, which, until a few years ago, raised nothing but mustard, is now all in grain, and will produce an enormous crop. He mentioned several extra fine crops, one of 100 acres of Chevalier barley belonging to John Armstrong, on railroad land near the head of Doolin canyon, and another of common barley on the Matt. Gallagher ranch.

MERINO SHEEP.—*Reporter:* James Roberts can show some of the finest French merino sheep. Orders come to him for bucks and ewes from South America, England, etc. He says the healthfulness, longevity and general improvement in stock here is very noticeable.

Colusa.

COUGARS ENOUGH.—J. M. Pugh, of Little Stony, tells the Maxwell *Argus:* On the night of April 29th, I had six sheep killed in my corral. The bodies were poisoned next day with strychnine. Next morning I found four large panthers killed by the poison, all within 50 yards of the corral.

Contra Costa.

ALMONDS.—Martinez *Item*, May 10: The almond trees in this vicinity have fruit developed to almost full size. The trees are vigorous and the young fruit healthy, and will mature a good crop. The almond is free from all pests and is one of the varieties of fruit that will thrive in any favored nook in the San Ramon valley.

STRAWBERRIES.—Antioch *Ledger*, May 7: We have had an opportunity to test the "Antioch strawberry," Mr. Biglow having remembered this office generously. In the drawer received, while all were of good size, a large percentage measured from 4 to 4½ inches in circumference. Unlike overgrown fruit usually, this berry proves to lose nothing in quality when of great size. The flavor is superior, and the fruit firm, though well ripened throughout.

Lake.

ALMONDS, ETC.—*Avalanche:* A. H. Poe says that his almond trees are loaded with fine and almost grown nuts; that nowhere in the county has he seen any fruit damaged by the frost; that there is entirely too much fruit on the trees, and to get first quality much will have to be picked off.

Monterey.

DISTRICT FAIR.—*Democrat:* Monterey District Agricultural Association No. 7, embracing the counties of Monterey and San Benito, will hold its fair this year at Salinas the week immediately following the Santa Clara fair.

Napa.

PONIES FROM S. A.—St. Helena *Star:* At Oakville, Tuesday, our friend Edington drove up with a pair of South American ponies. They were from the Rutherford ranch and were beauties in their way. A little larger than Shetlands, they were still much smaller than California mustangs. They were imported from South America and are said to be far ahead of the Shetland.

San Bernardino.

OLIVE OIL.—San Bernardino *Index:* Towne & Nickerson have a few bottles of olive oil, made by Mr. J. S. Hewitt, of Lugonia, which is pure and unadulterated. Mr. Hewitt has a small orchard of olive trees which are just beginning to bear and as yet does not make much of the oil, but what he does make is first class. We are glad to see this industry in our valley.

Sacramento.

EDITORS PRESS:—A cold north wind is blowing. Last night a heavy frost damaged the grapes more or less; also tomatoes and potatoes. Farmers have commenced cutting hay. As far as known, the crop is light; chiefly wheat and barley raised. There was so much hay last year, more will raise grain. Many are holding back their hay, as it looks probable it will bring a good price next fall. Strawberry season at hand; many have set out extensive new patches; some have estimated as high as 100 acres. Oranges and lemons are hanging in full blossom.—G. R., *Sacramento*.

Shasta.

DAMSONS AND RAISINS.—Cottonwood *Index:* On the Gamback farm up in the mountains near Shingletown, 100 damson plum trees, two years old, were set out one year ago, and the same season the fruit from those trees was sold for $10.50. J. R. Lowe has 56 acres in vineyard on the red gravelly land, a few miles northwest of Cottonwood. Sixteen acres of this vineyard was three years old last season and yielded $80 net profit to the acre, or $1280, for the raisins on that particular 16 acres.

Solano.

EDITORS PRESS:—The weather is pleasant, though cloudy. We had quite a shower of rain last Friday. Haying has commenced, but the crop will be light—$10 and $12 per ton is asked for it in the stack. Cultivating orchards and vineyards is about done, and many are thinning peaches. This is quite a job this year. A man can thin from 14 to 20 trees per day. The ground under many of the trees will be covered with the fruit picked off. Some half dozen driers will be brought to Vacaville this week and there is talk of getting more. Others are getting trays to dry in the sun if the prices of fruit in the city do not justify them in shipping. People generally are holding apricots at two cents per pound, and say they will dry if they do not get that. Pringle apricots will be ripe by the 20th of May. W. W. Smith is shipping about 200 boxes of cherries per day, and working 70 hands, white and Chinese. He says his cherries will turn out about half a crop. He is not shipping East and will not while they are worth $1 per box in San Francisco. There does not seem to be much disposition among fruit-growers, especially small ones, to ship East. So many got cinched last year that they seem to think if they cannot sell at home for a good price the best way will be to dry.—G., *Vacaville, May 8th.*

ALMONDS PAYING.—Dixon *Tribune:* Mr. Abernathie, of Suisun, has ten acres of almond trees 14 years old. The yield now amounts to about a ton to the acre, from which he realizes from 11 to 33 cts. per lb. The profits are more than can be realized from 320 acres of wheat.

Sonoma.

OLIVE OIL.—*Republican*, May 5: Col. Geo. F. Hooper brought to Santa Rosa, Monday morning, samples of fine olive oil made from olives grown upon his own grounds, now in the tenth year of their growth, from cuttings planted by himself. He has four hands engaged in making the oil, and will have a bounteous product. The oil is clear and rich. To Col. Hooper belongs the credit of having produced the first ripe olives and made the first pure native oil in Sonoma.

REALIZING ON ROSES.—Cloverdale *Reveille*, May 7: Charles Knust sent to the florists at the Bay, during the opera season, 22½ dozen of Marechal Niel roses, realizing therefrom $15. They were all grown on one tree.

Plumas.

GOOD PROSPECTS.—*Sagebrush Stockman*, May 4: Jerry Tyler, of Plumas county, was at Reno Monday. He reports everything favorable for a good year in his section of the footstool, and although grass is not as desired, stock is doing well, and a good crop of cereals and a large yield of fruit are assured. Last year Mr. Tyler sold over 3000 boxes of fruit in Nevada, and expects to do fully as much business this year.

Sutter.

CANNERY OUTLOOK.—Geo. Ohleyer to Marysville *Appeal* reporter: This season the company's machinery will run day and night, and then the fruits from many orchards not already contracted to S. F. canneries will have to be shipped. The crop of peaches and apricots exceeds by from two to three times that grown in any previous year, and from the manner in which many farmers are converting their grainfields into orchards, the time is near at hand when a half dozen canneries can be successfully operated. The time is too short to enlarge the capacity of the present cannery this season, or it would be done. Next year it will probably be enlarged to several times its present size. The first operations for this season will commence about May 15th and continue until late in the fall.

Tulare.

FRUIT WITHOUT IRRIGATION.—Tulare *Register:* In 1878 and 1880 Mr. A. Fullwiler planted a number of almond trees. In 1877 he planted a small orchard of peach trees, in 1880 pear trees, and in 1881 apple trees. He had no irrigation ditch that came in range of his trees, and consequently his trees had no irrigation. We have had several so-called dry years since he planted his trees, but his trees grew, thrived, and early matured fruit. All of his trees have attained a good size, show a healthy condition, and no year have failed to produce a fair crop of good fruit, some of it of a superior quality. He has also grapevines trained for an arbor that have more the appearance of trees than vines, the main stems being from seven to eight feet tall and from five to seven inches through. These, too, were grown without irrigation and bring a good crop of grapes each year. J. B. Bailey has a small vineyard, that, although irrigated when first planted, has been growing fair crops of a good quality for several years without irrigation. Both of the places are in the valley, 10 or 12 miles from the foothills. Trees grown without irrigation send their roots down deep after moisture.

Ventura.

BLUE GUM PLANTATION.—*Free Press:* Jos. Sexton has planted about 100 acres on the Harmon ranch in eucalyptus trees. In a few years he will find sale for them for railroad ties and fuel.

Yuba.

THE CLIP EXCELLENT.—Marysville *Appeal*, May 6: N. D. Coombs is engaged with his men in shearing a large flock of his sheep now on pasture near Moore's Station. He said yesterday that the clip this season would be the best in years, both in point of quality and quantity.

GRAPES ON HARDPAN.—O. Whiteside, who lives on Dry creek about 14 miles east of Marysville, has a vineyard of five or six acres on red soil underlaid with hardpan. In places the hardpan comes within two feet of the surface of the ground. The vines were grown from cuttings where they stand, and have never had any irrigation. They have always borne well.

FOOTHILL ORANGES.—W. Williams brought to the *Appeal* office yesterday a cluster of five magnificent-looking seedling oranges, grown at his place in the foothills, 17 miles northeast of Marysville, and two miles this side of the Stanfield house. The elevation is about 700 feet. The tree is 15 years old, and bore a large number of oranges last year. It has never been injured by frost. The oranges brought in were remarkably clean and bright, of a deep, rich color. They proved to be sweet, but had remained so long on the tree that the pulp had shrunk a good deal through evaporation.

NEVADA.

STOCK THRIVING.—*Stockman*, May 4: T. B. Rickey came in from his Douglas county ranch Monday evening. He reports grass abundant on the ranges in the southern part of the State, the cattle are doing well, and the calf crop so far very satisfactory. Andrew Benson returned from the eastern part of the State Sunday morning, and reports everything favorable for a good year. The grass has a good start and is already as plentiful as it was at any time last year, and cattle are waxing fat. It makes but little difference now whether any more rain falls or not, as good feed is assured. His travels took him through Eureka, Lander and Churchill counties, and what is said above applies with equal force to each.

Sacramento County Notes.

EDITORS PRESS:—I have finished spraying apples and pears with Paris green for codlin moth, and next spring I intend to spray for peach moth with the same. It is late now, as the damage is already done.

My apricot trees when young have been frozen down; some partially and some killed outright. I thought to experiment this year with manure around the trunk of the tree. I piled manure and old straw in a conical shape around the trees about 18 inches high, and out of 1000 so protected I lost only one tree. I shall continue the experiment.

I will give you a list of squirrel poisons I have been experimenting with: Arsenic, Paris green, strychnia and prussic acid. The acid is prepared in this way: To 15 lbs. of wheat take oil of rhodium, ½ oz.; oil sweet anise, ½ oz.; strychnia, ½ oz.; prussic acid, ½ oz.; 1 cup sugar. Mix the oils with the wheat first; second, the strychnia; third, the acid; fourth, the sugar. The scent of the oils attracts the animals. This is the most deadly poison in the world and needs to be handled with the greatest possible care, as a very little causes speedy and sure death.

Several land sales have been made between Sacramento and Folsom at prices ranging from $100 to $300. The boom is coming. The prospect for a fine crop of fruit is very good, and grain begins to show to advantage, as the late rains saved it from a failure. Some sharp men have sold their grapes and some lines of fruit in advance, for fear of a glut in the market. Some are preparing to dry with evaporators, etc.

Routiers, Cal. MONTGOMERY PIKE.

Allegretti Process of Cold Storage.

Readers will remember that favorable allusion was made at the last meeting of the State Horticultural Society to Mr. Allegretti's improved process of cold storage. This process has been so cheapened that the cost of storage is exceedingly small. As we give on another page a report on the Riverside storage enterprise, it is but fair to give herewith a statement just issued by Mr. Allegretti. There is abundant room in this State for all good processes, and we commend the subject to the careful consideration of fruit-growers.

To all Concerned: I am informed that the canneries will be unable to can the immense crop of apricots this year; that their consumption is only about 5000 tons, and that the reason that they cannot can more is due to the fact that the apricot crop comes in (or rather ripens) all at once. The canneries, not having the facilities to keep the apricots stored away, treated against decay, etc., they are compelled not to buy any more than they can use; and thus they will not buy more lest they will spoil on their hands. The early peach crop will be in very soon, and they will have to stop on the apricot and commence on the peach; but if they had means whereby they could keep the apricots, say for three to four weeks, they could continue to can them in perfect condition, the consumption would be much greater, and the canneries could put up more fruit than possible under the present circumstances.

I have the means to preserve the apricot for that length of time, and with a very small expense. I can furnish substantial evidence to prove this fact. By such means I consider that at least $100,000 could be saved to the fruit-growers this season. My process does not require four or five months to be put in operation, as there is no machinery in it whatever. In two or three weeks I can build rooms for the various canneries, or for fruit-growers, with a capacity of several thousand tons. The fruit would thus remain to supply the demand three, four or six weeks, if necessary.

Should any of the various canneries or individual fruit-growers desire a further explanation, I would be happy to hear from them. I would also be glad to meet with the fruit-growers of the various sections, and demonstrate to them the advantages of my system, which is the result obtained from many years of practical experiment.

Very respectfully, I. ALLEGRETTI.

West Berkeley, Cal., May 9.

San Jose Floral Fair.

[Written for the RURAL PRESS by H. M. H.]

The Floral Fair, which was held in the Horticultural hall, in San Jose, from the 4th to the 11th inst., proved a great success. Entering the hall, one was bewildered with the magnificence of the scene. The large hall had the appearance of a city, with its monuments, towers, domes, and palaces completely decked with flowers of every conceivable form and hue, while the perfume that pervaded the air was indescribably delicious.

A huge rainbow with all the colors represented by flowers, spanned the entrance. At the left was a design in moss of Mt. Hamilton and its surrounding hills, the summit bearing a floral telescope, the work of Miss Mattie Ross.

A wooden framework, covered with evergreens and flowers, was the emblem of San Jose, the boom being typified by a globe of snowballs. A temple and shrine, with all their fixtures accurately delineated with flowers, was a beautiful piece of art. Near the middle of the hall was an excellent imitation of San Jose's electric tower, at the right of which Mrs. A. P. Hill had set a dinner-table with choice wares from the store of W. S. Richards. The unique disposition of rare flowers and ferns gave the beholder the impression that this table was spread for fairies.

A summer-house, well provided with easy-chairs and lounges, all covered with flowers thickly set, was tempting to the weary beyond the power of resistance.

A large monument of callas was a thing of great beauty, and the many odd and striking designs seem to have taxed the ingenuity of the exhibitors to the utmost.

Too much credit cannot be given to Hon. Cyrus Jones, president, Capt. Frank Dunn, secretary, of the Horticultural Hall Association, and the ladies who contributed to the success of the fair.

One of the leading features of the exhibition was a procession every evening of 40 little girls, each drawing a wagon decorated with some variety of roses.

The following contains the names of the ladies who provided the wagons, the variety of the rose used in ornamentation, and the little girls who appeared in the procession:

Mrs. Frank Stock, Lamarque rose, drawn by Susie Stock.
Miss Lizzie Monahan, Blackberry rose, Frankie McGettigan.
Miss Monahan, Queen of Roses, Virgie Wilcox.
Miss Monahan, white Lady Banksia, Clara Belle Battee.
Mrs. Norton, Marie Van Houtte rose, Eva Norton.
Mrs. Nellie Freitag, Hermosa rose, Gertie Freitag.
Mrs. O. A. Hooker, yellow Lady Banksia rose, Ivy Hooker.
Mrs. C. Ayers, Cloth of Gold rose, Marian Ayers.
Mrs. L. E. Rodibaugh, Gold of Ophir rose, Nellie Rodibaugh.
Mrs. G. M. Bruce, Jacqueminot rose, Bertie Bruce.
Mrs. T. B. Keesling, Castilian rose, Emma Keesling.
Mr. K. B. Diedrick, Eliza Savage rose, Lottie Diedrick.
Mrs. J. P. Jarman, Wild Rose of the Prairie, Katie Jarman.
Mrs. S. W. Boring, Malmaison rose, Mez L. Bailey.
Mrs. W. D. Castle, pink moss rose, Ada Castle.
Miss Mabel Watkins, La Salmona rose, Lotta Bragg.
Mrs. F. M. Tenney, Homer rose, Cora Baggs.
Mrs. Bradley Smith, Lamarque rose, Ethel Kirk.
Mrs. Clifford Owen, Marechal Niel rose, Jennie Owen.
Miss Mary Whittier, white rose, Hattie Quilty.
Miss Cora Blaine, Cloth of Gold rose, Anna Rude.
Mrs. E. C. Smith, Safrano rose, Mattie Smith.
Miss Nellie Gardner, Triomph de Luxembourg rose, Fannie Gardner.
Mrs. Anna Curtis, La Marque rose, Jennie Curtis.
Miss J. May Trephagan, tea rose, Maud Trephagan.
Mrs. C. H. Corey, Agrippina rose, Della G. Grimes.

TEHAMA COUNTY placed a bounty of 15 cents on jackrabbits last November and has since paid out $2270 for 15,134 scalps. It will be discontinued June 1st.



The Wind-Swept Wheat.

Faint, faint and clear—
Faint as the music that in dreams we hear—
Shaking the curtain fold of sleep,
That shuts away
The world's hoarse voice, the sights and sounds of day,
Her sorry joys, her phantoms false and fleet—
So softly, softly stirs
The wind's low murmur in the rippled wheat.

From West to East
The warm breath blows, the slender heads drop low,
As if in prayer.
Again, more lightly tossed in merry play,
They bend, and bow and sway,
With measured beat,
But never rest;
Through shadow and through sun,
Goes on the tender rustle of the wheat.

Dreams, more than sleep,
Fall on the listening heart and lull its care;
Dead years send back
Some treasured, half-forgotten time,
Ah! long ago,
When sun and sky were sweet,
In happy noon
We stood breast-high 'mid waves of ripened grain,
And heard the wind make music in the wheat.

Not for to-day—
Not for this hour alone—the melody;
So soft and ceaseless, thrills the dreamer's ear!
Of all that was, and is, of all that yet shall be,
It holds a part—
Love, sorrow, longing pain;
The restlessness that yearns;
The thirst that burns;
The bliss that like a fountain overflows;
The deep repose;
Good that we might have known, but shall not know;
The hope God took, the joy He made complete—
Life's chords all answer from the wind-swept wheat!

—Mary Ainge De Vere.

Mis' Deacon Clapp, Second.

"Mis' Deacon Clapp's dead!"

"La! You don't say, Mis' Potter. How suddent!"

"It's nat'rel. We're all a-comin' to it. I'll have a mite of bacon and a dozen eggs."

"How-de-do, Mirandy? Heard Mis' Clapp's been taken?"

"Massy! I want to know. Poor man, *how* he must feel!" and Miss Miranda Brown heaved a sympathetic sigh.

"I'm so worried about the children, poor dears," said the little storekeeper. "Fred, you let me catch your hand in the sugar again! As I was a-sayin', there's three on 'em, and old Nance Barker can't get through the work, let alone—"

"Dear me! when I had ought to have been Christian enough to have offered my poor help before," and Miss Miranda turned hastily and tripped out.

"Did you ever? Aint that girl forrid!" ejaculated Widow Slocum.

"Girl?" echoed Mrs. Potter. "The land sake! Why, Mirandy Brown's forty year old!"

"Well," said Mrs. Slocum, deftly cuffing her eldest hope with one hand, while with the other she selected the largest eggs for her customer, "Mirandy needn't dream she'll ever be Mis' Deacon Clapp, second, for if deacon marries, 'taint Mirandy he'll ask."

"Du tell. Who do you s'pose?"

"Land, Sarah! 'taint proper to be talkin' so, and Mis' Clapp just departed."

"Certingly not," said Sarah, eyeing with latent suspicion Mrs. Slocum's careful "makeup."

"They do say there's the most elegant furniture, just up from Bosting, and she had to leave it. Dear me, it brings poor Potter right into my mind," and she hurried away muttering "She knows who he'd marry! I vow! Thinks it's her."

Many were the caresses bestowed on the motherless Clapps, and many a sympathetic glance met the deacon's. Deaf old Nancy Barker couldn't long preside over his household, argued female Birneyville, and he must think of the poor, dear children. But a second year followed like the first, and "Mis' Deacon Clapp, second," was not.

Like many New England farmers, Deacon Clapp possessed a superior education, and, his ample means permitting, spent many hours in his library. He was reading there one morning, when Joe pushed open the door.

"Papa, have you forgotten school begins today, and we've been waiting for you ever so long?"

The deacon rose at once. "So it does, girlie, and there's a teacher to be introduced, too," for he was committee man.

The two boys ran ahead, but Joe walked by her father's side, her hand clasped in his.

"What would you ever do without me, papa, you forget things so."

He smiled, but a sharp pain darted through his heart, and his clasp tightened convulsively. His love for Joe, with her mother's fragile beauty, was almost idolatry.

Reaching the school, he made the usual speech, then turned to the teacher; he knew she was a graduate of Holyoke, highly qualified, experienced, etc., and came expecting to meet a somewhat dictatorial person whose vocation could be told at a glance. He saw a pale, dark-haired, dark-eyed woman of 30, with the quiet refinement that marks the true lady, and a resolute gentleness of manner peculiarly charming.

The deacon walked slowly home, thinking it odd that he should be so stirred by sight of a new face. As he passed Mrs. Potter's she called from the door: "Won't you please step in?" and walked into the parlor, the deacon, perforce, following.

"Set right down, deacon. My parlor aint as tricked out as some folkses, but if I do say it, it's clean;" and she whisked out an invading fly before he could buzz a single note of triumph.

"Decidedly neat," said the deacon, looking at the portrait of the departed Potter over the mantel, and the pictured eyes stared back with something of warning in their faded depths.

"Well," said the widow, rocking herself violently, "Helen M'hitable Slocum told me that Mis' Jim Graves told her ma that Nance Barker told her that you said you was goin' to furrin' parts for the winter, and wanted some one to live to the house, and take care on it."

"I am going to New York for the winter."

"Well," continued she, "I know the Bible says we hadn't orter speak ill of anybody, but I'm certain there is cases where it is our bounden duty not to be still, and I always live up to my light. Helen M'hitable said her ma had some notion of speaking. as the store don't pay. Land! how could it? Such a shiftless creature as Mis' Slocum is! Now, me and Mis' Clapp always set store by each other, and I know just how she'd feel to have a passel of dirty Slocums traipsin' over her carpets."

The deacon winced.

"Besides, I should be willing to do it myself. I know poor, dear Maria'd be glad to have me there."

The deacon rose abruptly. "Nothing would suit me better. To-morrow we will settle the terms."

"Dear me," sighed the widow, accompanying him to the door, "how you must miss your partner. And the poor children running wild without no ma! That settles Mis' Slocum, I guess," she muttered, closing the door.

Great was the chagrin of Miranda and Mrs. Slocum when they discovered the widow's march, but in the spring when the deacon returned and she was installed in her own quarters, their hopes revived immensely.

One beautiful June afternoon, Miranda and Mrs. Slocum walked home from sewing circle together. "For my part," said Miranda, "I am heartily tired of it. It's Miss Barton, here, and Miss Barton, there, and Miss Barton, what do you think? everywhere."

"But she's the nicest schoolmarm ever I've seen," said Mrs. Slocum, who was really kind at heart.

"You'd think she was an angel," continued Miranda. "I know she's an artful, designing minx. Why, she has infatuated Joe and the deacon, too, I'll warrant. What do you suppose I heard to minister's yesterday?"

"What?" eagerly, for Miranda, as village music-teacher, garnered choice gossip.

"Miss Gray and minister's wife and me was to dinner, and Miss Gray said the young Clapps were home, and she supposed deacon would be along pretty soon, and then she said she heard that like as not deacon and Miss Barton would step off together."

"The idea!"

As they parted, "Miranda," called Mrs. Slocum, "take these strawberries. They won't keep over Sunday."

Miranda expressed her thanks, and was hurrying homeward, when, as she neared the deacon's, seized by inspiration, she turned in at the gate and was mounting the steps, when Dr. Black opened the door and paused abruptly.

"Why, who's sick, doctor?"

"Miss Josie."

"Why, I'm real sorry. I was just bringing her some berries; 'taint so long since I was her age, but I remember what I liked then."

"H'm, yes, ma'am, but they're not exactly suited to this case."

"I guess I'll go in and see Joe; I've some experience in sickness if I am young."

"H'm, yes," said the doctor, "but I can't let you in here, unless, indeed, you'll agree to take charge of her."

"What's the matter, doctor?"

"The smallpox, ma'am!"

Down went the berries, and Miranda sped away like the wind.

With a sigh of relief, Miss Barton dropped the key of the schoolhouse in her pocket, and set out on her walk to the boarding-house, breathing in the fresh June air with a delicious sense of freedom, thinking of the dear old home in the shadow of Mt. Wachusett, the loving hearts waiting her coming.

"O Miss Barton!" cried Jennie Nelson, breathlessly, "Joe Clapp has the smallpox!"

"No, oh, no!"

"Yes, but she has," persisted Jennie, "and Dr. Black can't get any one to take care of her. Isn't it shocking?"

Miss Barton walked on, all the bright light stricken from her day. Reaching the farmhouse, she heard the same story, and, tired and disturbed, went to her room, but not to pack. She was gazing absently out, when Dr. Black drove by. Calling to him, she ran out to the gate.

"It is only too true, Miss Barton, and the worst of it is I can find no one to care for her. The old woman is perfectly useless. I am going to Castine, but I confess I am not very sanguine."

"Meanwhile she may perish?"

He nodded.

"Doctor," said Miss Barton, "take me; I am not afraid, and if God sees fit to call me—" her voice trembled a little—"I am ready to say, 'Thy will be done.'"

"Bless my soul, you don't know what you are saying, Miss Barton! Not one of these people who have been coddling these children for three years would do it, and you are a comparative stranger."

"The Levite passed on, but the Samaritan ministered unto the stricken one. Say no more, doctor; I am fully determined. Please wait for me."

"'When a woman will, she will,'" muttered the doctor as he watched the slight figure flit away.

She speedily rejoined him, and they drove away in utter silence. Reaching the house, she listened calmly to the doctor's instructions, but left alone with poor Joe, she sank on her knees and implored His strength and guidance.

Mr. Clapp was almost distracted when he heard of his darling's danger, and exacted from the doctor a promise to show a white flag if the worst came. How he watched the window where the red flag fluttered, expecting, dreading, each moment to behold the fateful sign substituted; ah, no parent's heart needs the story.

It was the great excitement of the village, which was divided into two parties; all the sour, malicious old women expressing their shocked astonishment over Miss Barton's unmaidenly forwardness; all the tender-hearted mothers praising her heroism and praying for her success.

It was not to be.

It was a sultry July afternoon, the air barely stirring the muslin curtains. Miss Barton sat watching the poor little disfigured face nestled among the pillows. Joe was sleeping, and she tried to persuade herself that death would be merciful, and spare the child who had so won her heart, yet she could not but see the fell shadow deepening, deepening. Suddenly the great brown eyes opened, all the fever glitter gone—in their depths new light.

"Dear Miss Barton," said Joe, feebly, "I am so sorry for poor papa and the boys."

"Don't talk so, Joe," the tears falling despite her.

But the child smiled pitifully. "We always loved each other, didn't we?"

Miss Barton kissed her tenderly.

"Oh, I would like to stay with you and them. It was hard to think of going, but now I was dreaming of mamma, and she smiled and seemed to wait for me, and I can't turn from her."

"Joe, dear, it was only a dream. Try to sleep again."

"No, I must talk now; I want you to tell papa and Archie and Charlie, how much, how very much I loved them and you, and to tell papa he mustn't be very sorry, and to be good to him and the boys, won't you?"

"I promise."

There was silence; the tall old clock ticked loudly, never so loud and fast as now, Miss Barton thought, as if it were hurrying away the hours that the end might come.

"Tell me of Jesus," said Joe.

And the woman obeyed, and when she ceased the child exclaimed: "'Suffer little children to come unto Me!' Oh, I'm not afraid to meet Him!"

The gray shadow deepened, the little fingers grew colder, the breath came short and quick.

"Lift me," she murmured; "I want to look out."

The sweet scent of new-mown hay, the perfume of roses, the hum of insects, the murmur of voices came into the room. Joe's eyes lit as she saw the meadow where the men, with their broad-brimmed hats and white sleeves, were swinging their scythes, the waving fields of gold-tasseled corn, the sleek cow placidly surveying the antics of a sportive calf, and the golden sunlight gilding all with matchless glow. And afar off at the stile was a tall figure, with glass in hand, gazing into the room.

"Papa," cried Joe. "Papa! I see him! He, oh, he *does* see me!" she panted with delight, and tried to wave her hand; it fell at her side, and her mouth quivered, and she turned away her head. "Let me lie in your arms, so. It *was* him, though."

"Shall I signal him?" whispered the doctor, who had softly entered, but Joe shook her head.

And the sun sank lower, and the lines of golden light narrowed, and the soft gray twilight came on apace. Joe's lips moved: "Sing."

Tremblingly Miss Barton began Joe's favorite song, but not looking into the wide, wistful eyes, gathered strength:

"Asleep in Jesus, Blessed Sleep,"

And without the gray feathers of the night were falling, and within the black plume of death was waving.

Once, twice, the singer's voice died out. She looked at Joe and sank beside her. "Asleep in Jesus" indeed.

"There goes the deacon," said Miss Miranda, looking up from her tea and gossip. "I suppose, now, Mrs. Gray, that minister will be called on by the deacon pretty soon. Of course Miss Barton won't refuse him."

"She has refused him," said Mrs. Gray, quietly, and all Miranda's coaxing could draw from her nothing more than that she thought Miss Barton was actuated by a higher motive than the seeking of earthly applause.

"All the same," mused Miranda, "it's very nice to have such lofty ideas; I'm sure I do admire Miss Barton, but I do wonder who'll be Mis' Deacon."

And she is still wondering.

Notions and Facts.

[Written for the RURAL PRESS by MRS. J. HILTON.]

How strange it is that our ideas of people's looks are so seldom verified. We will imagine a person tall and thin, but nine cases out of ten will prove we were mistaken, and the person will be short and thickset. Or maybe we will think a person will be young and pretty when she is old and plain. I have so often been told that I was so different from what I was thought to be that I have taken to noticing the mistakes made more than I otherwise would.

We often know, or think we know, a person by hearsay or by his writings. We go to the town where he lives, and maybe our attention is attracted by some action or words said, and we wonder to ourselves who that person is. He may prove to be the very person we wanted to see. Sometimes our risibles are affected at some odd or comical situation, and we find an old acquaintance, whom we thought very dignified, doing something extremely undignified. I had been anxious to see a certain young editor. One morning, looking out from a friend's doorway, there stood a pleasant-looking young fellow, with a long stick in his hand, watching very intently for a poor little mouse supposed to be lurking in a bag with some empty fruit-cans. An older gentleman had a short, thick stick in his hand, and he also was watching for the mouse. Pretty close to the bag were two ladies intent on taking out the cans. Before they got through up came another man, also with a stick. Come to find out, the group included the editor I had wished to see, also a veteran school-teacher and a preacher—all intent on one poor little mouse, which proved to be a big black bug. You should have seen how quick the sticks were dropped when they found that the small but active rodent was not there. It was very comical. Being out of sight, I enjoyed a laugh all by myself.

Often we, as Charles Lamb said, hate a person because we do not know him. We take one person's word for another's ills, and think we never can like such a person, when maybe in time he becomes one of our very best friends. How careful we ought to be as to what we say of people. Yet how seldom we stop to think what effect a careless word may have upon a person's life.

The Latest Fashion in Girls.

The proper thing in girls this year is dashing and straight and strong. She greets mankind with an impressive stare, as she strides along the street with her chin in the air, her shoulders well back and her arms swinging to and fro. This season settled it. The opera brought society back, and the proper girl came romping home with flashing eyes and the ruddy glow of perfect health showing through the nut-brown tan of the summer's campaign. The clinging girl with tender eyes, the romantic girl with the yearning glare, the domestic girl with the purring voice, the "brilliant" girl with her turgid French, the smuggling girl with her artful smirk, and the girl who clung to the skirts of mamma—they are gone. They went away in a flutter with timorous screams at the snort of the engine and the rush of the burly world.

Now they've come back, but they're not the same. Instead, there's an army of lofty, gay, intrepid, meddlesome, dashing girls, who swagger abroad with delicious feminine audacity, and who have brought the breeze of the mountain-top, the salty flavor of the ocean's edge and the buoyant air of the Berkshire hills into the very heart of dirty, dusty, and stale New York. Of all the types, that of the girl of to-day, with her high-bred look, her daring style and winsome assumption of manliness, is far and away the most fetching thing that the world at large can show.—*N. Y. Mail.*

Although not quite willing to indorse all the above item says, yet looking about among my girl acquaintances I see that the robust, jolly girls are much in the ascendency, and I for one am thankful. I also find that nine out of ten of those girls who can and do create such a breeze in their immediate neighborhood are the girls one can depend upon for help when needed. A girl who can climb mountains and who can race over the beach is of much more account than the namby-pamby girl, who thinks it "so undignified to run."

Although the jolly girls have taken on breezy ways, yet their hearts are just as tender as ever and their sympathy just as fervid. And in fact I think more so, for they are not thinking of self all the time. It makes me happy to see the bright, rosy girls. And if fashion has anything to do with it, I say bless fashion and may he, she, or it, whichever it may be, always keep our girls bright, buoyant and self-assertive.

Los Alamos.

THE OLDEST PICTURE in the world, or what is supposed to be such, is in the museum at Boulak, in Egypt. It is a fresco from a tomb at Maydoom, representing six geese.

Emerson.

The highest minds of the world have never ceased to explore the double meaning, or shall I say, the quadruple, or the centuple, or much more manifold meaning of every sensuous fact.—EMERSON.

Divine magician of my native land!
Since thou hast touched great Nature with thy wand,
Her many stores seem fuller than before,
And indice give of undreamed mystic lore.
O most c'ear-seeing one! We cannot look
With thy keen eyes on star, and hill and nook—
We who tread on the plain so far beneath
Thy mountain-tops aglow with many a wreath
Of heavenly light. Still we can try to grasp
The esoteric from creation's clasp;
And where our strivings hard and vain appear,
Against the blue our struggling souls to cheer,
Thou, lofty spirit, wilt remain outlined—
Grand apotheosis of heart and mind.
—*Fannie H. Avery in Boston Commonwealth.*

One Standard for Both Sexes.

Josiah Allen's children have been brought up to think that sin of any kind is just as bad in a man as in a woman; and any place of amusement that was bad for a woman to go to was bad for a man.

Now when Thomas Jefferson was a little feller, he was bewitched to go to circuses, and Josiah said: "Better let him go, Samantha; it haint no place for wimmen or girls, but it won't hurt a boy."

Says I, "Josiah Allen, the Lord made Thomas Jefferson with jest as pure a heart as Tirzah Ann, and no bigger eyes and ears, and if Thomas J. goes to the circus, Tirzah Ann goes too."

That stopped that. And then he was bewitched to get with other boys that smoked and chewed tobacco, and Josiah was just that easy turn that he would have let him go with 'em. But says I:

"Josiah Allen, if Thomas Jefferson goes with those boys and gets to chewin' and smokin' tobacco, I shall buy Tirzah Ann a pipe."

And that stopped that.

"And about drinkin'," says I, "Thomas Jefferson, if it should be the will of Providence to change you into a wild bear, I will chain you up, and do the best I can by you. But if you ever do it yourself, turn yourself into a wild beast by drinkin', I will run away; for I never could stand it, never! And," I continued, "if I ever see you hangin' 'round bar-rooms and tavern doors, Tirzah Ann shall hang too."

Josiah argued with me. Says he:

"It doesn't look so bad for a boy as it does for a girl."

Says I, "Custom makes the difference; we are more used to seeing men. But," says I, "when liquor goes to work to make a fool and a brute of anybody, it don't stop to ask about sex; it makes a wild beast and idiot of a man or a woman, and to look down from heaven, I guess a man looks as bad layin' dead drunk as a woman does."

Says I, "Things look differently from up there than what they do to us—it is a more sightly place. And you talk about *looks*, Josiah Allen. I don't go on clear looks, I go on principle. Will the Lord say to me in the last day, 'Josiah Allen's wife, how is it with the soul of Tirzah Ann ——, as for Thomas Jefferson's soul, he bein' a boy, it hain't of no account?' No! I shall have to give an account to Him for my dealin's with both of these souls, male and female. And I should feel guilty if I brought him up to think that what was impure for a woman was pure for a man. If a man has a greater desire to do wrong, which I won't dispute," says I, lookin' keenly onto Josiah, "he has greater strength to resist temptation. And so," says I, in mild accents, but firm as old Plymouth Rock, "if Thomas Jefferson hangs, Tirzah Ann shall hang, too."

I have brought Thomas Jefferson up to think that it was just as bad for him to listen to a bad story or song as for a girl, or worse, for he had more strength to run away, and that it was a disgrace for him to talk or listen to any stuff that he would be ashamed to have Tirzah Ann or me to hear. I have brought him up to think that manliness didn't consist in having a cigar in his mouth, and his hat on one side, and swearin' and slang phrases, and a knowledge of questionable amusements, but in layin' holt of every duty that comes to him, with a brave heart and a cheerful face; in helpin' to right the wrong, and protect the weak, and makin' the most and the best of the mind and soul God had given him. In short, I have brought him up to think that purity and virtue are both feminine and masculine, and that God's angels are not necessarily all she ones.—*Selected.*

A HINT FOR CALIFORNIA NUT-GROWERS.—A Connecticut farmer, who owns a fine grove of "Shagbarks," has found it very difficult to secure the nuts, owing to the lawless visitors who, as soon as the crop begins to fall, persist in taking a hand in gathering it. Having tried various expedients for saving the nuts for his own use without avail, he finally hit upon the plan of turning his old bull into that pasture lot as soon as the nuts began to fall in the autumn. He reports the plan a perfect success, as the old bull is up bright and early in the morning and remains on guard until late in the evening. Whenever the farmer's family wish to pick up nuts in the pasture, the old guard is taken to the stable, to be turned out again when the fallen nuts are gathered. N. B.—This mode of protecting the nut tree is not patented.—*Ex.*

YOUNG FOLKS' COLUMN.

Ginger.

Ginger went to the sociable. He had not cared in the least about going, but he went. The boys made him go. He considered himself too far advanced in years for such gayeties. His limbs were tottering beneath him from very age. His breath came short from his wheezing lungs. His joints were stiff from rheumatism.

They went four miles into the country, over a romantic woody road. It was in the royal month of October; the moon was at the full; the night was lovely. Ginger was blind. What, therefore, signified to him the glorious moonlight bathing in its tender radiance the trees clothed in their autumn suits of russet, yellow and brown?

The boys were, all six of them, more or less inclined to be musical. Frank carried a cornet, Johnnie a jewsharp, Fred a mouth organ, Willie an accordeon, little Harry a fish-horn; Guy could sing. But Ginger had no ear for music. He never did have, even in his youth.

The boys looked as neat and as trim as six little new pins, each arrayed in his Sunday suit, set off with a buttonhole bouquet, and all felt as happy as six little larks. Poor Ginger had but one suit to his back—an iron-gray; it was well worn out with age. If he went he must needs wear that. And, so far as he was concerned, he never felt more miserable in his whole life.

The ladies of the "Presbyterian Aid Society" had provided a bountiful supper for all who came. That, however, was no temptation to Ginger. He could not chew ordinary food, having lost his teeth years upon years before.

He went. But not of his own accord did he go. The boys just made him go. For the trifling sum of 75 cents, exactly one shilling apiece, did these six little lads hire of his owner, Mr. Pratt, this blind, spavined and wheezy old horse, to carry them to the sociable.

They hitched him, with an eye, perhaps, to the "eternal fitness of things," to the village undertaker's wagon, and Frank, the undertaker's son, drove him—that is to say, he held the lines, for Ginger went about as he pleased. He pleased to go slowly, very slowly indeed. How could he help it at his age and with his infirmities? The only wonder is that he could go at all.

But the boys did not care how he lagged. They were happy. They halted before every farmhouse upon their road and saluted and serenaded its inmates. To be sure, their musical instruments were not in perfect accord, nor their playing in exact time, yet it nevertheless, in every instance, produced the desired effect. People came out of doors to see what was the matter. Of course, no one invited them to come in and be treated, or even thanked them for their music. The boys did not expect it. It was compensation enough to hear, "Oh, it is a lot of young fellows from Benton going to Mr. White's to that church sociable." "Young fellows." There was music and magic in the words.

To our six jolly little boys, to whom social pleasures were nearly new and altogether delightful, the time for departure came far too soon. Good boys they, not one of them forgetting their mamma's injunction to "shake hands with Mrs. White and thank her for a very pleasant evening."

Mr. White escorted them out to their wagon with some surprise, and, maybe, a little reproof in his voice. "Why, boys, if you have not old Ginger! Forty years old if a day. Seems like cruelty to animals to drive that old creature."

Off they started in the best of spirits. But Ginger did not care in the least about going. But he went. The boys made him go. That is, he went for a little while, then he stopped short, and by his actions declared he could not or would not go one step further.

"Go 'long, Ginger," said Frank. "Get up, Ginger!" cried all six in concert. He did not budge one inch. "Whip him and make him go," said little Harry. Frank was kind-hearted, and Mr. White's expression, "cruelty to animals to drive that old creature," was still ringing in his ears. "No, let us get out and lead him awhile," he said; "maybe he is afraid of something. Come Fred." They led him easily for a quarter of a mile or so, then, resuming their seats in the wagon, tried to drive him. Again he stopped. Then Willie and Guy led him half a mile. Once more they tried to drive him. Once more he stopped. Plainly, it was useless, so they took it, turn about, leading him and said not one word of repining or complaint. When they reached the foot of a steep hill, every boy of them clambered out of that wagon and helped that venerable horse drag that wagon up that hill, singing and shouting at the top of their voices every step of the way. Jack Frost, mischievous elf, nipped their ears, tweaked their noses, pinched their fingers. The man in the moon looked coldly down upon them, with eyes stern and pitiless. The pale little stars winked and blinked at them in the most knowing and unaccountable manner.

At 2 o'clock in the morning, John, Mr. Pratt's hostler, was awakened by voices saying: "Here, John, is old Ginger." Then the boys sought each his own fireside and couch. Strange, but not one of them closed his eyes in slumber, late as it was, tired as they were.

At half-past eight that same morning, just as the first schoolbell was beginning to ring, the six boys met—was it by chance, do you suppose?—at Mr. Pratt's livery stable door. Curiosity, expectation, dread, was written upon each face, John, the hostler, was standing in the door. For a moment no one spoke. At last Frank gasped out: "John, how is Ginger?" John pointed to a small lot back of the stable. All looked. There stood Ginger, erect upon his four legs, the bluest of October skies above his head, the most refulgent rays of October's sun shining full into his sightless eyes, alive and wheezing. At which glad sight the boys threw up their hats, gave three cheers and were off to school in a twinkling.

Ginger is alive to-day. In winter he is warmly housed and well fed. In summer he drags his stiffened limbs through green pastures, feeding upon the tenderest herbage. Our six little boys, big boys now, often stop to pull for him a bunch of clover, or pat his lean neck. Somehow they feel grateful toward him. Sometimes they whisper to him slyly: "Say, Ginger, would you not like to take us to another sociable?"

But Ginger never did.—*New York Tribune.*

GOOD HEALTH.

STOMACH DIGESTION.—Opportunities for studying gastric digestion through fistulous openings into the stomach are, thanks to modern surgery, more frequent than formerly. This is important, as the physiology of digestion, as understood at the present day, requires more than the classical instance of Alexis St. Martin to place it on a sound experimental basis. Such a case, with experiments *ad hoc*, is recorded in the *Revue Scientifique* by Von Herzen, of Lausanne. The subject was a man, aged 28, on whom gastrostomy had been performed for occlusion of the œsophagus. The observations made were as follows: Bile always appears in the stomach during digestion, but generally only in the later stages. The amount of HCl amounts to 1.8 to 1.9 gramme pro liter; it increases during digestion, and reaches its maximum in the third hour. Sodium chloride appears rather to diminish the amount of acid. When the stomach was empty in the morning but little pepsin was found, and a large amount of propepsin; peptogen accelerated digestion. In the first hour, of a quantity of albumen introduced, two per cent was digested without peptogen, 12 per cent with it. In the second hour, 23 per cent was digested without, 45 per cent with peptogen. In the third hour, 51 per cent without, 76 per cent with peptogen. These results agree with those obtained by Schiff. Chloral, quinine sulphate, and above all potassic iodide, retard digestion. The author would forbid red wine in disturbances of digestion, but would recommend bouillon and dextrin; blood fibrid is also indicated in many cases.—*Medical Press.*

IS THE BARK OF THE LOCUST TREE POISONOUS?—The inner bark of the fragrant flowered locust (*Robinia pseudacacia*), commonly cultivated as an ornamental tree, and for its invaluable timber, has long been known to have a sweetish taste, resembling that of licorice, and to have emetic and cathartic properties. But we believe it has never been considered poisonous. In the New York *Medical Journal* of January 22d, Dr. Z. T. Emery reports a case of poisoning of 32 boys at the Brooklyn Orphan Asylum from chewing some of this bark, which they had obtained from fence-posts in the yard. In the mildest cases, vomiting of ropy mucus was observed, together with flushed face, dryness of throat, and dilated pupils. In the severest cases, large quantities of ropy mucus mixed with blood were vomited. The other symptoms were retching, pain in the epigastrium, debility, stupor, cold and pulseless extremities, a feeble and intermittent action of the heart, dilated pupils, and face of a dusky pallor. The patients were given subcarbonate of bismuth and brandy by the mouth, and morphine hypodermically; sinapisms were applied over the stomach, and bottles of hot water along the extremities. The patients were discharged from the hospital in two days.

WHERE TO DIG THE WELL.—Let us remember that a well will drain an area with a diameter equal to twice its depth. Therefore, a well 12 feet deep will drain an area the diameter of which is 24 feet, that is to say, that it will drain the surrounding soil for 12 feet in every direction. Obviously then the privy should be more than the depth of the well away from it, and more than this again if it is proposed to place it on a higher level, which, however, should never be done. The well should be lined inside thoroughly with mortar so that percolation cannot occur between the crevices of the bricks, and it should be well covered, so that surface drainage cannot get into it, for you want to drink water that has come into the well from the bottom, after it has been purified by filtration through the earth. Thus, then, these are the precautions to be observed in locating and building your well in the country. How about the city? Well-water in the city should never be used; the sources of contamination are too numerous and too hidden to be avoided.—*Annals of Hygiene.*

DOMESTIC ECONOMY.

Boston Cooking-School Recipes.

Beef Croquettes.

Chop fine three-quarters pound cold roast beef, moisten quarter pound stale bread with a little stock; season with salt and pepper and a few drops of onion juice; moisten with a little brown sauce; add yolks of two eggs beaten well; cool, roll in crumbs, egg and crumbs, and fry in hot fat. Serve with tomato sauce. Mix together the beef and bread crumbs. Add the seasoning and enough of the brown sauce to moisten all.

Tomato Sauce.

Cook one-half can tomatoes, one slice of onion, one bay leaf and one sprig parsley together for ten minutes; strain; melt one tablespoonful butter, add one tablespoonful flour, pour on slowly the strained tomato; season with salt and pepper. Pour this around the croquettes just before they are brought to the table. This makes a delicious dish.

Cecils.

One cup cold cooked meat, chopped fine; add yolk of one egg beaten well, one-half tablespoonful butter, one tablespoonful bread crumbs, a few drops onion juice, one-half teaspoonful salt and one-half saltspoonful pepper and seven tablespoonfuls stock; stir all together over the fire until hot; then cool, form into balls, roll in crumbs, egg and crumbs, and fry in hot fat. Serve with Bechemel sauce. Any sort of meat may be used for this. The stock is to moisten the mixture, and water or milk may be substituted. Spread out on a tin plate to cool if scant of time.

Bechemel Sauce.—Melt one tablespoonful butter, add one tablespoonful flour, pour on one-half cup hot stock and one-half cup cream, the beaten yolk of one egg, one-half teaspoonful salt and one-half saltspoonful pepper.

Scalloped Mutton.

Remove fat and skin from cold roast mutton, cut the meat into small thin slices, season with salt and pepper. Butter a dish, put in a layer of meat, then cold-boiled macaroni, moisten with tomato sauce, and so continue until all is used. Cover with buttered crumbs, and brown in the oven.

If you have no macaroni cold, break up about 12 sticks—a quarter of a pound—into hot water, in which has been put a tablespoonful of salt. Let it cook for about 20 minutes. Stir it up once in awhile to keep it from burning on to the dish. When it can be cut easily it is done.

Finish preparing the dish as by above rule. Serve as soon as done, else it will get dry.

Fish a la Reine.

One pound cold-boiled fish, flaked, melt one tablespoonful butter, add one tablespoonful flour, pour on one cup hot milk, add the fish, three chopped mushrooms, salt and pepper to taste. When thoroughly heated add the yolk of one egg well beaten and one tablespoonful chopped parsley; serve.

This is a delicious way of serving fish, and may be improved by adding a few more mushrooms to give a stronger flavor.

Stewed Mushrooms.

Peel and wash fresh mushrooms (one-half pound) and break into pieces. Season with salt and pepper and let them stand one-half hour; melt one tablespoonful butter and one teaspoonful flour, and one pint mushrooms. Simmer 15 minutes; then add four tablespoonfuls milk or cream and the well-beaten yolk of an egg.

Sweetbreads.

Wash in cold water, remove pipes and membranes. Cook in boiling salted water, with one tablespoonful lemon-juice, for 20 minutes. Drain and put into cold water.

Larded Sweetbreads.—Lard and bake till brown, basting with brown stock. Serve with mushroom sauce.

Creamed Sweetbreads.—Break into small pieces, add white sauce and mushrooms cut fine; cook ten minutes and serve.

Sweetbreads should be put into cold water as soon as brought from the market, as they spoil quickly. The lemon-juice or vinegar is added to harden the sweetbreads in cooking, as they, like fish, are composed mostly of albumen and may be hardened in this way. All fish is improved, both in flavor and appearance, by the addition of vinegar or lemon-juice to the water in which it is cooked, as it makes it solid and flaky for salad, etc. One tablespoonful vinegar to four pounds of fish is a good proportion.

Sweetbreads must first be cooked as described above, whatever is done to them afterward. They may then be broiled like a steak and buttered and seasoned, or cooked in a variety of ways, either plain or fancy. Two of the best methods are larding and creaming, as given above.

Cabinet Pudding.

Butter a mold and decorate with raisins. Fill the mold with alternate layers of sponge cake, raisins and macaroni. Fill with an uncooked custard made with one pint milk, yolks of four eggs, four tablespoons sugar, one saltspoon salt and one teaspoon vanilla. Steam slowly two hours. Serve with sauce.

The sauce to go with this pudding is a creamy sauce: Cream one-half cup butter, add slowly one-half cup powdered sugar, one-quarter cup cream, juice and grated rind of one lemon.

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SAN FRANCISCO:
Saturday, May 14, 1887.

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Dr. B. J. Kendall Co., Enosburgh Falls, Vt.
San Francisco Savings Union.
Chicago Veterinary College.
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The Week.

This week has seen the mowers started quite generally in the valleys of the upper half of the State. Slight showers fell here and there, as is expected when the hay is cutting, but the downfall was hardly dust thick, and if this constitutes our "hay rain" for 1887, it will go on record as a very little one. Following the showers there has been day after day of north wind very persistent and very cold, so that at times the temperature has fallen below usual May records, and in some places frost has seriously affected the vines and tender garden plants. This norther, as we stated last week, was rather an unnecessary intruder this year and has probably prepared the way for a good deal of light and shriveled wheat. The hay crop does not promise to be overlarge, and the wheat average over the whole area will fall low this year. The rise in wheat values continues in force, and so far as California is concerned there should be good prices to help out on a short crop. The only good crops, except in unusually wet regions, will be found on summer-fallowed and early sown grain which has had the advantage of all the rain which has fallen. There is much late sown which will hardly make a decent weight of hay, unless it should have something better than a norther to grow on.

Short feed promises to shorten up the milk flow, and scanty feed gives growers a lot of poor beef cattle. Our vines and trees will be relied upon to furnish the large figures this year.

International Convention.

The Twenty-seventh International Convention of the Young Men's Christian Association convened in the First Congregational Church Wednesday morning and expects to remain in session about a week. There are about 400 delegates and members in attendance. Nearly every State and Territory in the Union is represented, besides many delegates from Canada and the islands of the South Pacific. More than 200 of these visitors arrived on Tuesday's overland train, and were met by the Committee of Reception at Lathrop with a car laden with fruits and flowers. Dainty boutonnaires were prepared for each member of the party, and the rich floral display from the gardens of Oakland and Berkeley must have made these good people from a harsher clime feel as if they had struck the country described in the dear old hymn, "Where everlasting spring abides, and never withering flowers." General O. O. Howard welcomed the delegates in a brief but very felicitous speech.

In 1841, a young clerk, George Williams, in a London dry goods establishment, became interested in the moral and social welfare of his associates. This was the initial impulse of a movement that is in successful operation in nearly all the large towns and cities of the world. In all, 3372 associations exist, with a total membership of about 150,000. Though undenominational, the association has always been in the hands of the young men of the so-called evangelical churches. Its chief aim has been the saving of young men from the seductive vices of towns and cities, helping the needy, furnishing employment to the idle, free reading-rooms and social benefits, ever keeping in view their moral elevation. The association was fortunate in early securing the aid and countenance of that philanthropic nobleman, the late Earl of Shaftesbury, who was for many years president of the London association, and the late Earl of Cairns, who gave it the warmest sympathy and most liberal aid. The organization soon spread over Europe, and numbers among its zealous friends the Emperor of Germany, the Crown Prince of Sweden, and many of the most eminent statesmen and literary men of the age.

The observation of its working by a student of the New York University, George M. Vanderlip, while on a visit to England, led to an organization on the London basis in Boston, Nov. 29, 1851. Planted on American soil, the good seed took root and has grown more thriftily than in any other land. There are 1002 associations in the United States alone. There are now 28 associations in California, with a membership of over 3000, all volunteer workers in this army.

We would not forget that it is to this association we are indebted for the Christian Commission, one of the most beneficent agencies ever devised to assuage the miseries and soften the harsh and cruel features of war. During the four years of our civil strife this commission received and distributed voluntary contributions in the shape of food, medicine, delicacies of all sorts worth nearly $3,000,000, and $2,500,000 in money. Nearly 5000 noble-hearted men and women went out under its auspices as helpers in hospital, camp and religious work, imparting help, sympathy and consolation to the soldier, not caring to ask whether he wore the Confederate gray or Union blue.

We are glad the representatives of so excellent an association have assembled in California. We welcome them, trusting that the visit may be agreeable to them and being assured that the holding of their International Convention in our State will do us good, by calling wider attention to the aims and needs of the associations carrying on such beneficent work in California.

CHERRIES FOR THE EAST.—L. W. Buck, manager of the Fruit Union, states that it is probable that a car of cherries will be sent East within two weeks. One of Palmer's refrigerator cars is waiting, and it will be loaded and started on its way soon.

FLORAL FAIRS are reported in several places besides San Jose, but we are obliged to defer for another week all extended notice.

POINTSMAN, said to be the largest horse on earth, died at Petaluma on the night of May 9th. He was valued at $5000.

The Fruit Outlook.

The fruit crop is advancing toward maturity without especial hindrance or drawback thus far. The cold of the last few days may have hurt the vines somewhat in some exposed places, but we hear of no wide injury. It is pleasant to note that the indications are for a year of unusual activity among the canners and fruit-driers. Though the pack of canned fruit last year was on the whole very large, sales have covered the product well, and the new season will open with a bare market. This and the prospect of getting plenty of fruit at reasonable rates encourages the canners to prepare for running at their full capacity. The fruit-drier has much the same outlook. Supplies of last season's drying are well disposed of; in fact, it is claimed by some that supplies at this point are not enough to meet the ordinary consumption from this date until new dried fruit may be expected. It seems reasonable to expect, therefore, very large figures as the results of this year's work in fruit preservation, and there is little danger of excessive productions if prices court consumers as they ought to do this year. The outlook for the raisin pack is also looked upon as encouraging. Though the product last year was enormous, judged by previous outputs of California, there was no excess, and the market will be ready for the new crop.

The assurance of something less than last year as the cost of freight on fruit to the East, coupled with the new and apparently harmonious arrangements for distributing the fruit at the East, should enable our growers to put a vast amount of fruit on the Eastern markets with better results than last year. Wednesday morning's *Record-Union* has the following item:

A Sacramentan, interested in fruit-growing, has received a dispatch from the East, stating that the traffic managers, at their convention in Chicago, determined to make the necessary arrangements for fixing the rate of freight on ten-carload lots of fruit from the Pacific Coast to $300 per car to Chicago, and $400 to New York.

This does not amount to a demonstration that the desired rates will be granted, but it is a good sign so far as it goes. The announcement will be received with much satisfaction by the fruit-growers. If this should be secured, it must be added to the other indications which are favorable for the turning of the large fruit crop of 1887 to good account.

London Purple for Codlin Moth.

Samples of London purple procured in the San Francisco market have been analyzed at the State University for Mr. Klee, State Inspector of Fruit Pests. It has been found that one sample contained over 33 per cent of metallic arsenic, which is equal to over 44 per cent of arsenious acid; another sample had nearly 26 per cent of metallic arsenic, equal to 34 per cent of arsenious acid. Comparing these analyses with the analyses of London purple used for spraying at the East, it is seen that the California samples are much richer in arsenic, as the material used in Missouri is shown to contain only about 22 per cent of metallic arsenic.

It has been found that solutions of London purple at the rate of one pound to 80, 100 and 160 gallons of water respectively, have all injured the foliage of pear trees to which they were applied, although the weaker solutions did not seem to be so injurious to the apple. It seems likely that the washes which have been recommended because of Eastern experience will prove too strong here unless they are based upon a lower percentage of arsenic such as is shown by the Eastern analyses of London purple. With such an amount of arsenic as the London purple obtained in San Francisco contains, a wash of one pound to 200 gallons of water would be safer to use—at least on pear trees.

This is a very important matter and must be further investigated. There should be some standard of arsenic-contents in commercial London purple, so that fruit-growers may prepare their washes intelligently and with assurance that they will not injure foliage or fruit. As the apples and pears in most parts of the State are now so well grown, it is probable that those intending to spray for the codlin moth have already made the application. We should like to hear from all our readers who have applied white arsenic, London purple, or Paris green this year; how much they used of each to a gallon of water and what effect was produced on the tree. We have just heard of injury to foliage by Paris green. Let us have all experience possible in this matter, to the end that a safe and effective solution may be agreed upon.

California Poultry Association.

The adjourned annual meeting of the California Poultry Association was held at No. 625 Market street, S. F., Wednesday evening, May 4th. In the absence of Pres. Bayley, Vice-Pres. Presson occupied the chair.

Pursuant to notice given at the fall meeting, an amendment to Art. III of the Constitution, to the effect that the offices of recording secretary and treasurer be held by one and the same person, was adopted. Also, amendment to Art. V, providing that regular meetings of the association be held on the first Wednesday of October, and during or immediately after the exhibition, or in case of no exhibition being held, then on the second Wednesday of the year—the latter to be termed the annual meeting.

Resolutions offered by Mr. Everett, that nine members should constitute a quorum for the transaction of business; also, that a quorum of the executive committee consist of five members, were carried.

Officers for the ensuing year were then elected as follows: J. J. Jones, president; Geo. R. Presson, C. N. Cousens, D. H. Everett, T. D. Morris, vice-presidents; G. T. Marsh, recording secretary and treasurer; H. G. Keesling, corresponding secretary; G. B. Bayley, J. N. Lund, H. H. Carlton, C. A. Pitkin, S. McBirney, O. J. Albee, W. M. Newhall, C. N. Crowell, executive committee.

After some informal discussion as to the next show, etc., the meeting adjourned.

AT HAYWARDS.—A delightful ride of 14 miles from Oakland, last week, winding up through a fine avenue bordered with blooming locusts, brought the writer and family, just at nightfall, to the graceful home of Judge W. C. Blackwood, near Haywards.

The social evening spent with Mr. and Mrs. Blackwood and their friend Crane and neighbor Winton will last pleasantly long in the memory of their humble guests. The residence of the B.'s seems pleasingly arranged for summer and winter comforts—most especially so when both B.'s are "at home" to straying visitors.

In the morning we had just time to merely glance at one of the most fruitful and well-kept orchards in America (which environed our home for a night) before starting, with sincere thankfulness in our hearts, for the Danville picnic.

RAILROAD RATES.—It is announced that rates on west-bound freight from the Missouri river to Pacific Coast terminals are reduced from 20 to 35 per cent since the tariff of April 27th. It is owing to the competition with the Canadian Pacific. There is published a schedule of these rates, but as our readers are mostly interested in freight movements away from California the general statement of the reduction will suffice for that. There has been adopted also what is called a "commodity tariff," which works both eastward and westward and includes articles of direct interest to our readers. It is as follows: Wool, regardless of valuation, to New York and Boston, $1.50 per 100 pounds. Corn and oats, Missouri river to California, 60 cents. Canned goods, to Missouri river, St. Louis and Chicago, 75 cents. Canned goods, to New York, $1 per 100 pounds.

WEATHER BULLETINS. — General Greely, Chief Signal Officer, will henceforth issue from Washington a special weekly bulletin with the view of promptly placing before the public each Monday morning reliable information relative to climatic indications in the agricultural districts. It is believed that these bulletins containing information of deficiencies or excess relative to the temperature and rainfall during the growing season will serve as a reliable basis for determining conditions favorable or not for the growing crops. The issue of May 8th states that since January 1st there has been a large deficiency in the rainfall in the Northern States, ranging from six to nine inches. The deficiency in the grain regions of the Northwest has been slight, ranging from one to three inches.

TELEPHONING between New York and Philadelphia is now as easy as it was between points about a block apart a few years ago.

Pacific Grove Retreat.

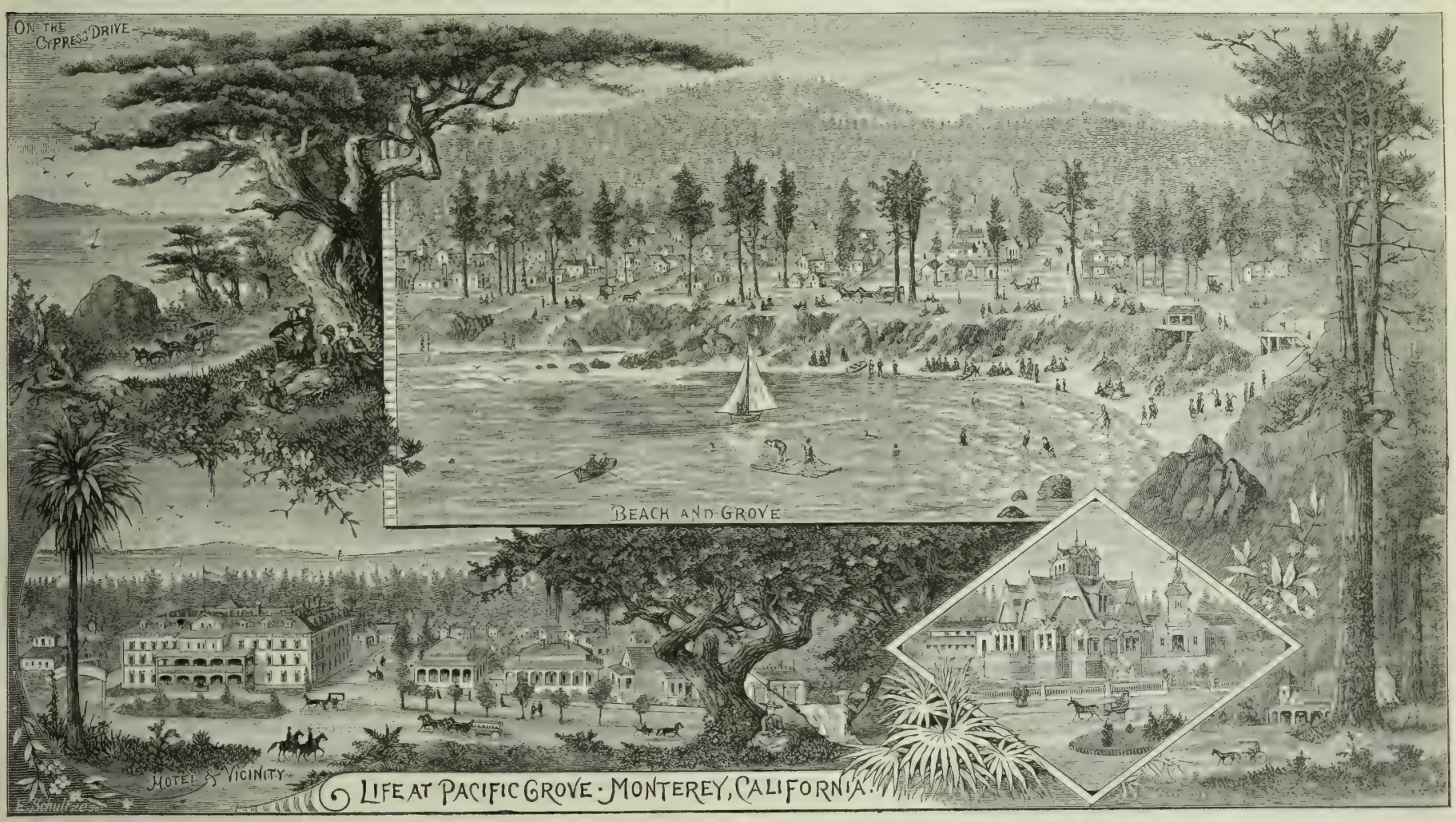
The burning of Hotel del Monte, which has been widely heralded, has awakened public interest in the steps to be taken for the restoration of the attractions the fame of which has become world-wide. We understand that work is rapidly progressing which will, in a few months, result in a new and much improved Del Monte. The immediate effect of the loss of the great hotel is to call out into more prominence the twin attraction of Monterey, the Pacific Grove Retreat. Our readers have seen frequent allusions to this seaside beauty-spot, as the seat of the California branch of the great Chautauqua University, and as the gathering-place of leading religious assemblies. Fortunately before the Del Monte fire there was approaching completion a new hotel at Pacific Grove which now comes forward to serve those who desire to resort to the environs of Monterey during the present summer. Our engraving on this page presents in a very acceptable manner the beauties in and around Pacific Grove as they now appear, including recent improvements, and therefore superseding previous sketches.

On a promontory one mile west of Monterey, covered with pines and clumps of oak that would gladden a Druid's eye, is located the now famous Pacific Grove Retreat, the Seaside Camp-ground and Christian Seaside Resort. The encampment commands a magnificent view of the bay of Monterey and the variegated scenery that environs it. The general arrangements of this watering-place are based upon the principles guiding those of the Eastern States, especially the one held at Ocean Grove, in the vicinity of Long Branch, N. J. History is full of surprises. One mile from the spot where Father Junipero Serra, the best known and noblest of the Franciscan missionaries, landed and took possession of the country in the name of the King of Spain, chanting the Te Deum and scattering holy water, a new race and people have come, with quite another shape of religion, and made the place notable for rest, health, prayer-meeting, missionary and Sunday-school conventions.

The quiet of this sylvan retreat has recently been broken by the land boom. The voice of the buyer is heard in the grove. The fever for eligible sites has invaded the calm and shady retreat. The great number of visitors during the summer of 1886 was the first decided thrill of prosperity that determined what this place shall be, and from month to month has witnessed new and cozy homes in all portions of this beautiful spot. Avenues and streets are being constantly opened and improved by the Pacific Improvement Company, and also by private individuals.

El Carmelo is the name of the hotel lately erected by the Improvement Company at Pacific Grove, and which has already been opened under the management of George Schonewald. It is a thoroughly complete building in all its interior arrangements, and will have elegant accommodations for upward of 200 guests. It will be kept in splendid style, and no pains or expense will be spared to render it a pleasant and popular place of resort. Mr. Schonewald will make every provision for the entertainment of those who seek its hospitality, and the tanks at "Del Monte" will be placed at their disposal, together with the clubhouse and stable. The opening of the El Carmelo at this time is most opportune.

This picture shows that Pacific Grove is quite like a metropolis with its superb hotel, bathing pavilion, streets, avenues and boat-houses. So far as nature has a chance, this place is now in its gayest attire. The bay, the beach, the bathing, are all fine; the trees are in full leaf, the grass is soft and green, wild and cultivated flowers are in profusion, the music of the mocking-bird and linnet greets the ear in all directions, made more melodious by the baritone of the ocean's waves. "See Naples and die." We had rather pass a few days at Pacific Grove and live.



CALIFORNIA PRODUCTS IN GERMANY.—If Count Bismarck does not object too seriously, it seems likely that some California products may attain wide sale in the Fatherland. Consul Miller, of Leipsic, in a late report, says California wine is already known to some extent in Germany. A further fact of interest is that extensive collections which have been lately shown by European makers, and the processes employed, appeared to have been very successful, but for size and quality the fruit could not be compared with California products, and there is no doubt that the American fruits, energetically introduced, could compete successfully with the native productions.

EFFECT OF THE ELECTRIC LIGHT UPON PLANTS.—A citizen of Davenport, Iowa, whose garden is situated at 100 feet from an electric light tower, has remarked that his lilies close at sunset, but open again a few minutes after the arc lamps have been lighted. It has been observed at Detroit, too, that the foliage of the trees exposed to the rays of the electric light is much more luxuriant than that of trees as are not.

A NEW CANNERY is to be built at Healdsburg, Sonoma county.

Southern California.

The Sanitarium of the Continent.

[Editorial Correspondence.]

There are few portions of the globe that are so completely satisfactory as a home, for either winter or summer, as Southern California. The entire region from Los Angeles eastward through the San Gabriel and San Bernardino valleys, and then southward through a series of valleys traversed by the California Southern railroad to and including the city and environs of San Diego, together with many smaller outlying valleys, not forgetting the large expanse of territory of which Anaheim is an important and central locality, combines all the varieties of mountain, vale and sea which nature has anywhere provided. This region is also blessed with a climate, the air of which is dry, pure and wholesome, and most admirably varied in its slight characteristics to suit every form of disease, bodily ailments or condition to which flesh is heir. The philosophy of this peculiarity of climate is directly traceable to that great ocean current which, having its origin in the tropical seas off Southeastern Asia, sweeps up along the shores of China and the islands of Japan, is deflected by the converging continents at Behring's Straits, and thence moving southward, reaches the shores of Southern California with a temperature never varying over 3° from that of 56°.

This immense body of warm water, 500 miles in breadth and more than a mile in depth, forms the great hot-water pipe, which, by the aid of the protecting influence of the grand old mountain chain which sweeps around the landward side of the Southern California valleys, serves to gently temper the ocean winds and impart to them their genial, balmy, semi-tropical character, which secures to this locality its matchless climate—so gloriously invigorating, so stimulating as a tonic and so much superior, in every respect, to the celebrated resorts of the Old World. So uniform is the climate here that the changes of the seasons are scarcely perceptible. The mountains are unlike mountains, generally, elsewhere. They are not clothed, as those of moderate elevation generally are, with dense growths of forest and undergrowth, covering a vast mass of constantly falling and decaying vegetable matter, the whole pleasing to the eye, it is true, but giving out large quantities of gases, which, in many cases, more than overbalance the more healthful emanations which proceed from the vigorous forest growth. The mountains which surround the Southern California valleys possess very peculiar characteristics. Their sides are steep, rugged and mostly devoid of trees except along the river-courses. They rise abruptly from the valleys and act as great sheltering walls, absorbing the heat of the sun by day and tempering the naturally cool nights by gradually giving it out by radiation until the sun again makes its appearance.

As a summer resort for tourists and health-seekers, Southern California cannot be excelled. It has already become well known, and the rush thither is increasing with each coming year. We were assured during our recent visit there, by tourists, excursion agents and others, that the rush during the coming year will be far in excess of anything which has preceded it. The number of people who come in search of health is almost beyond computation, and among the hundreds with whom we have conversed we have never yet found an individual who has been disappointed in what he has heard of the climate and its advantages. It is fast becoming the great sanitarium of the continent.

Varieties of Climate.

As already intimated, judgment should be used by health-seekers in the selection of their stopping-places. Equability of temperature, dryness of atmosphere, and mountain elevation are the essential requisites which go to make up a model health resort; in lung complaints this rule especially obtains, hence dry and hilly regions, wind protected, and above mist and fog, have, in all countries, reached a higher value than the seaboard lands, which latter are best adapted to the recruiting of that health which, in the course of overwork, or convalescence from acute diseases, requires the tonic and bracing effect of sea breezes; more variety in amusements, such as easy rambles by the sea, boating and bathing.

Easiness of access is a factor indispensable to all such places; rails and roads there are, others in contemplation, and some in the course of construction, which will enable the most enervated individual to reach any desirable part of this favored country and allow him to enter on a course of climatic treatment under the most favorable auspices.

In summing up we would say that no one need be concerned if he should not, at first, be fully satisfied with the immediate atmosphere and temperature of the locality selected. In the absence of medical knowledge or advice, being everywhere in an exceptionally healthful climate, the invalid can, with very little trouble, make a practical exploration for the climate and temperature which will give him or her the greatest relief; for, within a radius of 50 or 60 miles from almost any location in

these valleys, a person may suit his taste or needs from the sea-beach to perpetually snow-crowned peaks.

Very few comers at first really understand the climate of this region, and persons of delicate health oftentimes submit themselves to exposures which even robust people should avoid. It is often the case that the spring-like balmy air of a winter's morn and the sunny, tempered warmth of the mid-day allures the invalid to undue exposure to the, perhaps, decidedly cool air of the evening and a consequent "chill." A careful study of the climate should be made a matter of business by every invalid. It would be a great boon to visitors, and a matter of great importance to this section of the State, if some practical medical man, thoroughly versed in the peculiar characteristics of its climate, would prepare a popular hand-book, describing places, precautions and results already obtained, to be employed by the invalid for furnishing all necessary information as to the precise locality where each one should go to receive the greatest benefit to any particular ailment.

The climatic advantages and grand and beautiful scenery of Southern California will suffer nothing even when compared to the most favorable localities of Southern Italy, with its charming lakes, its enchanting river banks, and its grand and beautiful ocean-beaches. Here there is a steady tone in the atmosphere, like draughts of champagne or the subtle presence of iron. The inspiration of the air invites outdoor labor or exercise. Horses can travel more miles a day here than in any other locality in the States. Under the inspiration and tonic influence of the climate every one feels impelled to more than usual activity. And what is possibly still more interesting is the fact that there is room here for all—pleasant homes, fertile fields, an opportunity to make a living, and a chance to live out one's days with a minimum of suffering. Great inducements are held out to new-comers from all parts of the world, not only in Southern but in all parts of California, from Oregon on the north to the Mexican line on the south. Owing to the rapid advance in the price of land at the south, and the peculiarities and time required to bring fruit-lands into productive value, persons deciding to settle in Southern California must bring with them means for support for four or five years in addition to that needed to secure a home. In Northern California, as a general thing, where mixed farming is the rule, a new comer may obtain a full support for his family from his first year's labor.

In this connection it may not be inappropriate to give the following statement from an exchange, which our own observation enables us to pronounce substantially correct: "It has been said that 5000 heads of families immigrated to Northern and Central California in 1886. We have no means of testing the correctness of the statement; the number was certainly large. None of them, if they bestow on their new farms the thrift and patience which would be necessary to insure success anywhere, will have reason to regret their coming. They will do us good, too. We need new blood every year to maintain the cosmopolitan character of our people, and to prevent our relapsing into the provincialism which is the fate of isolated communities. The most successful races in the world are mixed races; the more strangers pitch their tents among us, and become as one with us, the brighter will be the destiny of California in the future."

The Southern California Boom

The writer has frequently been asked about the Southern California "boom": "How long will it continue?" "Has it any real support?" etc. Those who are in a position to best judge, such as railway officials, etc., deny that so far as the influx of strangers is concerned, there is any boom at all. They say that the influx is simply a regular overflow from the Atlantic and Mississippi States, and that this overflow will continue as a regular business from year to year for an indefinite period. They assert that the summer travel which has heretofore been directed to Florida, Bermuda, the West Indies, etc., has now been turned toward California, and that it will not only continue, but that it will largely increase. There is good reason to believe that this is the case from the fact that the winter travel in other directions, and especially to Florida, is gradually falling off. There is much dissatisfaction manifested against Florida, for reasons well known to the public in general. There is also another factor connected with the travel in this direction, which tells strongly in favor of California. No one claims that Florida is a desirable or hardly a permissible place for permanent residence for persons of northern birth, while all admit that California is. The consequence is that every year large numbers of Eastern visitors, charmed with our climate and other advantages, decide to make this State their permanent home. It is chiefly this class of visitors and their rapid increase that is filling up the waste places of California, and particularly its southern portion. Many of those who locate there are invalids; but there is a large proportion also who are well-to-do, who enjoy good health wherever they are, but who are delighted with our climate, scenery, business advantages, etc., and decide to make California their future home. Southern California just now seems to have the "call," and the influx thither will continue until the country is literally filled up. All the large land holdings there are being divided up, and smaller ones are also being subdivided, and the indications seem to justify the conclusion that Southern California is destined at an early day to become one great city of gardens, orchards and villas, with small centers of business at frequent intervals. Dependent upon this population, and growing out of it, there will probably be three great cities—Los Angeles, San Bernardino and San Diego, the first being the commercial center proper of Los Angeles and San Bernardino counties; the second, located at the junction of the two great overland railroads, will become the chief shipping point for the fruit product of the great and productive valleys in and near which it is located; while the latter, located directly upon the ocean, with the second best harbor on the Pacific Coast, will become not only a great terminal point, but a large transhipping port, where the fleets of the world engaged in the East India and Australian traffic will transfer their cargoes, from ship to car, for distribution throughout the continent and for overland transmission to Europe. It is this prospect which has caused the recent large advance in the value of real estate throughout Southern California. There may be something like a "boom" attending this advance in the price of town and city lots. The advance in such property has probably reached its fullest healthy point, and any further upward movement, especially of outside property, should be ignored and discouraged. It is safe to say that more than double the number of city and town lots have been laid out beyond what will be needed for the next three or four years. This statement will hold good for all localities from Los Angeles up through the San Gabriel valley and down the chain of valleys to San Diego, including both terminal points. In regard to acreage prices, where the land is good and productive, we believe they will be well sustained and still further advanced in value by occupation and improvement. The future of Southern California is both assured and grand. There is no need that it should be discounted. It is good for its present face value, with a steady and healthy advance.

It is a Veritable Paradise.

Exempt from climatic afflictions; blessed with a profusion of Nature's bounties and surrounded with grand mountain scenery such as cannot fail to awaken the purest and warmest emotions of delight in the bosom of either traveler or permanent resident. Most fortunate are the dwellers therein, and most assuredly will every well-located and available acre within its limits be soon occupied and improved. The stranger, who for the first time gazes upon the lofty, snow-capped mountains, "kissed by storm and sunshine," which so completely surround this favored region, cannot fail to be awed by their grandeur and beauty. And he is no less astonished and pleased when he looks upon his more immediate surroundings and beholds spread out before him, in every direction, fields of golden fruit, interspersed with acres of purple vintage, the air redolent with perfume and brilliant with flowers and foliage of every hue and color. A merchant of St. Louis writes as follows:

"I Think This Whole Region a Marvel.

"It is a perpetual surprise to me—not the least of which is that there remains to day a single acre of uncultivated land in this whole valley. * * * On coming here, last spring, from the snow, and sleet, and chilling winds of St. Louis, I seemed transplanted to a new world! I could not believe my own eyes! I thought I was under the spell of some mighty magician who had conjured up this world of beauty only to mock and disappoint me. I looked to see it vanish at a touch of his enchanting wand. But as I rode day after day among these lovely homes, where every kind of beautiful flowers seemed to run riot, and saw thousands upon thousands of magnificent groves, fragrant with blossoms and laden with golden fruit, I began to realize it was no conjuror's spell, but a wonderful reality. But I cannot realize, even now, that all these miracles of beauty and culture and wealth have been wrought out of what was, but a few years ago, barren plains—dry, dusty and verdureless. I have traveled extensively in this and other countries, but I have never seen another place where such results were possible. * * * I own an orange-grove in Florida, which has furnished me some amusement and a place for my spare cash for several years. I believe it is one of the best in that State, of its age; but I see that Florida cannot compare with Southern California."

The rapid growth of Southern California during the last two years is a marvel indeed. This growth is not limited to her towns and cities, but it is shared by all the most available parts of the interior as well. It is not the result of the great influx of visitors who come to stay awhile, leave a little money and then return. The real growth is due to those who come to stay—to build homes and plant vineyards and orchards. The mild and matchless climate and grand and beautiful scenery first induced them to come. Our rich soil and wonderful possibilities for business, for fruit-growing, etc., finally held them. The same inducements are constantly attracting others. Every family that locates is a standing advertisement for more to follow. All these advantages will continue to bring home-seekers, so long as there is any choice between perennial spring and summer on this side of the continent in contrast with severe winters and constant change of climate on the other.

These letters will be continued from week to week, until the notes taken by the writer, at all the principal points in Southern California, from Los Angeles to San Diego, have been exhausted.

W. B. E.

Advantages of Rural Life.

The following is the address of Dr. W. W. McKaig at the Grangers' Union Picnic, at Danville, Contra Costa county, on May 7th. A report of other leading features of the occasion is given on a preceding page:

Ladies and Gentlemen: With the advent of May we are not only reminded of the spring fever, spring poetry, spring chickens, and the like, but of a certain vague longing for the woods. Human nature needs change. To eat the same kind of food day after day, week after week, is enough to break down a constitution of iron. All good housekeepers know this and take special pains to vary the articles of diet every day. We have long had a theory that dyspepsia, with its ugly brood of horrors, blues, hypos, and suicidal meditations, can be traced to keeping the digestive mill too long grinding at the same sort of grist. If any one doubts this let him slip into the grounds of a hygienic establishment and take a peep at the devotees of Graham bread and watery vegetables or Edenic simplicity, as they loll on the benches, rustic seats, or swinging chairs, and talk of their aches and woes. The need of change and variety is so deeply wrought in our nature that no matter how pleasant one's home and surroundings, it becomes tedious and monotonous. The same round of duties, routine of business and household cares induce a feeling of satiety, languor and melancholy. Many call it biliousness and take tansy bitters, limes and blue mass. A camping trip to the Yo Semite Valley or Big Trees would bring them out all right. And then, fern-gathering, rambling, sketching, botanizing or lying under a tree throwing pebbles at the lizards and squirrels, is so much better than doctor's bills and funerals.

But as every one cannot afford the time or means for this sort of healthful regalement, the next best thing is the picnic. Blessings on the man who invented the picnic! Then all the people, rich and poor, who constitute a church, school, Order or Grange, may take a few hours' respite from business and domestic routine and care. No one can go out into the grove at this fair season, with its new leaves, bright blooms, soft green grass, and blithe nest-building birds, and not feel all the better for it. Indeed, no one can take an hour's ride along the country roads gazing at fragrant orchards, vineyards and sweeps of grain-fields, inhaling the perfumed air, and fail to come home with more sunshine in the face and the odor of flowers in the temper. And then, what an appetite one has for dinner after a ramble over the hills, through the woods, or along the shore of the sea. The man who has never eaten a lunch on a log, spread on the grass, or from the lap of his wife or best girl in the shade of a breezy grove, has never caught a glimpse of Nirvana.

As you are possessed of a rich commissary of lunch baskets, and regaled by the delicious anticipation of fragrant coffee, cold ham, chicken, hard-boiled eggs, sardines, and a score of other nice things, you can stand a poorly prepared speech. You are too kind to grumble at a commonplace dinner when you suddenly call upon a friend not expecting you. The best housekeepers are not always prepared to entertain. As I was invited to address you at a very late moment, you will patiently listen to a sort of pot-luck speech

I shall first ask you to notice the relation of agriculture to bodily health, vigor, and long life. The farmer follows a calling that more than any other furnishes all the needed elements of a noble physical manhood. The tallest, stoutest, best-looking men and women come from the country. You have purer air to breathe, purer water, and fresher food. With you, life is more uniform and tranquil. You have few temptations to dissipation and irregular hours. You are but little worried by cares, competitions, rivalries, and social antagonisms. In towns and cities, indolence, intemperance and lust consume one class, and hard labor and hot rivalship in business grind up the energies of another. Men living in narrow streets, huddled in low tenement-houses, or breathing in the stifling atmosphere of workshops, are more liable to disease. Epidemics and pestilence will run over a city like fire on a dry prairie. In the city the trades and guilds war upon each other. It is the amphitheater of the bulls and bears, a constant struggle between labor and capital. How roughly here the sharp extremes of wealth and poverty, luxury and starvation, refinement and barbarism, jostle and elbow each other. And now, what is the result of all this social attrition and friction upon the health and the duration of life? We are not left to theorize or conjecture. The statistics show that the average duration of life in the city is 20 years, while the average in the country is 40 years. Were it not for the influx of fresher blood, more robust and sanguine energy from the country, the population of our cities would die out or degenerate into runts or dwarfs. But agriculture sustains a relation to the development of the intellectual and moral powers in a way we are not apt to suspect. All life is susceptible of large improvement and augmentation, and that of man more than any other. The brute cannot be debased or elevated beyond a certain limit, but man may be sunk below the animal, or winged to the hight of an angel. And what have been the modifying circumstances that have lifted civilization out of the savage state? What has helped to make the difference between the ripe scholar, the elegant gentleman, the active, enterprising man of business, and the lazy, coarse-haired, coarse-featured Indian? Race has doubtless much to do with this distinction, but not all, for it is apparent that more might be made of even the lowest races. It may not be flattering to a transcendental philosophy, but it is nevertheless true that the development of our moral and intellectual power is largely conditioned upon the food we eat and the place we live in. A finely organized brain and a delicate and exquisitely harmonious system cannot come from poor living. The Digger Indian, who feeds on worms and grasshoppers, will partake of their nature. Great enduring intellectual power is always dependent on a good physical constitution. The larger the caliber of the gun, the stronger should be the carriage upon which it is mounted, or it will break down at the first detonation. The mind rides on the back of the animal, and the animal must be strong and well fed or the rider will make but little headway. Say what you will, a good stomach generously supplied with various and nutritious food, and an active brain, are intimately akin. The nations that feed on leeks and onions, a watery, fibrous and porous diet, are not noted for great commercial activity, enterprise, and daring adventure. The finest poems, orations, and philosophies do not blossom from Graham bread and cold water. It is not at the water-cure, but where people have a variety of good food, you find the most noble looking, wide-awake, sprightly men. Whatever, therefore, refines the quality of food, multiplies its variety, augments its abundance, must largely tend toward the intellectual development of a people. Agriculture, just so far as it has improved the properties of grain, fruit, and the breed of cattle, has been a generous contribution in this direction.

Agriculture lies at the base of social order and stability. One great distinction between civilized and savage men is the relation they sustain to the soil. The savage has no fixed abode. He makes no claims to the earth. He knows nothing of fee-simple deeds and leases. All he asks is a place to pitch his tent for a night, or during the hunting season. There can be no social organization, no law, no order, so long as men are nomadic and unsettled. Agriculture attaches men to the soil, and this lays the corner-stone of the social fabric. It fixes them to some chosen spot they call home, and clothes it with sweet and tender memories and associations. There the stars sparkle more brightly, the flowers bloom more fragrantly, the fruits taste more deliciously. Every tree, hill, field, and stream is daguerreotyped imperishably upon his soul. It is the fairest, loveliest spot on earth to him. The garden, the orchard and the field represent more to him than the annual yield of fruit and grain. It is the home of his wife, the place where he has unfolded his secret heart-history, and written upon cradle, play-ground, schoolhouse, and rural graves the evangel of his love. You can easily see how, with this attachment to the soil, this love for a chosen spot you call home, begins the development of social stability and order. What was your condition so long as you were a restless, roving gold-seeker, living in covered wagons and canvas houses, and carrying all your goods and chattels on the back of a pack-mule? It was not until you appreciated the value of the soil, the blessings of a home, that society began to crystallize into a goodly shape, and the love of law and order reigned. Socialism is a disease of cities and great crowded centers. It can never strike root and thrive among people who own their homes.

Agriculture not only contributes to social order and stability, but it fosters the love of liberty and has ever been the most unswerving foe of despotism. The government of savage tribes is despotic. One man, by superior strength, prowess, cunning or wisdom, gains the mastery and rules with absolute sway. At the other extreme there has always been a tendency in commercial and manufacturing circles toward aristocracy and monarchy. Vast wealth, accumulated at these centers, in the hands of a few, loves to rule; men who live in opulence and luxury, who control markets and corporations, form an exclusive class and are often disposed to domineer over the masses. Even in our free land the great cities make the slate and dictate the nominations. They furnish the money that carries elections and tamper with the integrity of legislation. The only offset to this accumulation of power is in the laborers of the rural districts, and it has ever been the tendency of agriculture to foster the spirit of liberty. The farmer stands on his own soil. Social distinctions do not disturb him. He is never inflated with snobbishness. His gains come so slowly that he is rarely puffed into egotism and ostentation by enormous wealth. He is above financial contingency, and consequently is never depressed by poverty into servility. His bread is dependent upon no man's caprices. He can vote as he pleases without fear of being dismissed from employment the next morning. In politics he is free, in a measure, from rings and cliques. In religion he is free from sectarian domination. In society he is not afraid of eavesdroppers and gossips. Lord of himself, owning the soil, harvesting his own grain, and driving fat cattle and sheep to the market, he feels his manhood, his independence, and has ever been the best friend of free institutions. History verifies the fact that whenever a people have established a democratic form of government, or in any way encroached upon the domains of monarchs from the olive groves of Greece, the snow-capped mountain homes of the Swiss peasantry, the broad steppes and savannahs of South America, or the sweeping rivers and virgin acres of the United States, the majority of the people have been owners and cultivators of the soil.

And now let me counsel the agriculturist to be content with his calling, and not to look with envy upon those who dwell in cities. You may find a very suggestive lesson in a certain good old book that I fear you badly neglect to read. "And the Lord God took the man and put him in the Garden of Eden, to keep it and to dress it." The first man, fresh from the hand of God, and his blushing young wife, just fashioned from a rib to indicate that she should always keep near his side, were placed in a garden. With what love-glancings and hand-squeezings they must have walked into their fair, bright home that bridal morning. God must have laughed outright when He invented the idea of woman, it seemed to make Adam so happy. Indeed, it is said that the morning stars sang together, and all the sons of God shouted for joy. From that hour the culture of the earth and the ownership of a cozy home in the country has come the nearest realizing Eden. But now do not forget the next lesson. Cain got angry one day and threw a club at the head of Abel and killed him, and was cut off from the culture of the earth as a punishment. "When thou tillest the ground it shall not yield thee her strength." "And Cain went out from the presence of the Lord and built a city." How many a young man who has given up the tillage of the soil and a quiet country life, to try his luck in the city, has gone out from the presence of his health, purity, and manhood. Who can gather up all the blighted hopes, shattered consciences, wasted lives and broken hearts thrown over this mighty social maelstrom?

When you come to look at this matter closely you will find that a very large portion of the distresses of labor come from our inordinate love of city life in this country.

To young men in the country, the city is a dazzling object. They are drawn to it as the moth-miller at night is attracted to a lantern hung in the orchard. The flow of young men toward the city is not deter-

mined by the law of demand, but by the law of dazzling attraction. In all these metropolitan centers the supply of labor is excessive, and the streets are filled with hundreds of persons with little or no money, seeking places that are not to be found. Advertise for a clerk or bookkeeper to-day, and there will be a hundred applicants for the situation the next day. Like birds charmed by the cobra, young hearts flock to the city and are unable to fly back to the country. They buzz around this dazzling lure and are consumed. They hover around this raging maelstrom and are lost. There might be developed an agricultural spirit that would greatly mitigate these griefs of industry. There is no reason why farming may not be made as charming a pursuit as merchandising. It would only be necessary to throw into the pursuit the ambition and intelligence that make the successful lawyer or merchant. And this is one of the chief excellencies of the Grange. It is lifting farming into the region of the fine arts. If farming must always mean the struggle of an ignorant man over a few acres with a hut, a poor horse and a potato patch, the intelligent young men will be drawn to the city. But farming, fruit-growing and vine-culture may mean in the country what merchandising means in the city—the rush of ambitious, thoughtful men. There is no reason why the occupation of a farmer should not be made so elegant and charming that between it and the handling of cases of silk, and the pursuit of medicine or theology, the best minds would confess little choice. Much has been achieved already in this direction, but much remains to be done, in order to check the rush of ardent, ambitious, but superfluous energy to that terrible, dazzling, devouring monster—the city.

And now a few friendly words with the young men I see around me. If not married, get a wife, a good, healthy, Granger's daughter, and commence to build a home. Do not wait until you are well-to-do, for few young men learn the art of economy till the solemn sense of domestic responsibility is upon them. If you are poor, pull, sing, play and economize together, and as soon as you are in some degree independent, get out of the ruts of routine and extract all the honey there is in the passing hours. But if you are already pretty well fixed, then do not compel your wife to cook for the hired men, slave over a wash-tub, make butter and cheese, hunt eggs, and raise turkeys and chickens, until her beauty fades and the sweetness of her temper sours. Get her a piano, music and charming books and magazines to read, and try and make the charms of the country as cheerful and pleasant to her as possible. Never grumble at the milliner's bills. If your wife loves a nice, fashionable dress, and a bewitching, daintily trimmed hat, you should be all the more proud of her. What are you for, you great, strapping, stalwart fellow, but to make some woman happy and your home a little heaven to go to heaven in? If you love a fine horse, and bright, shining harness, why should not your wife be gratified in the line of her tastes? Then do not labor so long and hard that you have no time for reading and inteilectual improvement. Soul-wealth will outlast your orchards and vineyards. Shrouds have no pockets, but remember the mind will safely carry all you store in it above all the wear and mutations of time. When you visit the city do not go where you would feel ashamed to take your wife and daughter, and do not stay long unless you are a good temperance man. Loan all the money you can spare, but never hire if you can possibly avoid it. Never allow your homestead to be clamped in a mortgage. Be honest, be temperate and independent, keep out of debt, never go security, avoid lawsuits, lotteries, stock-gambling, and in short, as we sometimes say in bidding a friend good-by, be good and you will be happy.

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As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

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☞Farmers and consumers will find it to their interest to call and see us and be convinced.

T. A. LAUDER, Manager.

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Air-Purifier and Preserving-Room System.

ADAPTABLE to keep or transport all perishable articles in perfect condition. After 25 years of studying the various means of preservation for perishable articles, I have the honor to announce to the public that, having fully succeeded and completed my preserving process, I am now ready to build preserving rooms, either on a large or small scale. For further particulars address

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West Berkeley, Cal.

Postoffice Box P.

N. B.—Save hundreds of thousands of dollars this season on this coast on Cherries and Apricots by adopting the Allegretti Air Purifier and Preserving-Room System.

INSURE YOUR GROWING GRAIN

CROPS

IN THE FIREMAN'S FUND OF CALIFORNIA.

The WHITE IS KING

FOR FAMILY USE,

Dressmaking, Tailoring and General Manufacturing.

IN ITS GREAT RANGE OF WORK IT STANDS WITHOUT AN EQUAL.

THE LIGHTEST RUNNING,
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THE FINEST FINISHED,
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WHITE SEWING MACHINE COMPANY,
108 & 110 POST ST., S. F.



Are you using **Wellington's Improved Egg Food for Poultry?** IF NOT, WHY NOT? Every Grocer, Druggist and Merchant Sells this Egg Food.

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FOR SALE.

2240 Acres of land in Shasta Valley, Siskiyou county, Cal. Six miles from Montague. It is well watered with living springs, is fenced, has a house, barn and granary upon it. Two-thirds are suitable for cultivation and all is good grazing land. Price $25,000.

Also, 3240 Acres adjoining the TOWNSITE OF MONTAGUE. For further particulars, call, from 10 A. M. to 2 P. M., at room 2, 116 California Street, San Francisco, Cal., C. C. WEBB.

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. 20,000 acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION. 401 California St., San Francisco.

20-ACRE TRACTS.

Fine, rolling, cleared, reddish-brown land, under cultivation in the Shasta Fruit and Raisin Colony. Twenty acres for $500. Terms: $200 cash, and balance in installments to suit purchaser, at 8 per cent per annum. Any tract will be set in raisins or fruit and brought to bearing by proprietor of colony, if desired Send stamp for circular, and state how you wish the installments. GRIFFIN BROS., Cottonwood, Shasta Co., Cal.

DEERING "GIANT" MOWERS

MANUFACTURED BY

WM. DEERING & CO., CHICAGO, ILL.

Very Strong, Very Economical, Very Light Draft.

THE "GIANT" found no grass in the heavy cutting of last season (1886) which it did not successfully handle; in several instances it was taken into grass that had been given up as being uncutable by other Mowers cutting only 4 feet, at the same time the "GIANT" was cutting a 6-foot Swath.

Intending purchasers of Mowers would consult their own interest by calling upon the local agent and examining into the merits of the "GIANT" before purchasing any other Mower. It is sold under a full guarantee, and intending purchasers are furnished the "GIANT" on Trial.

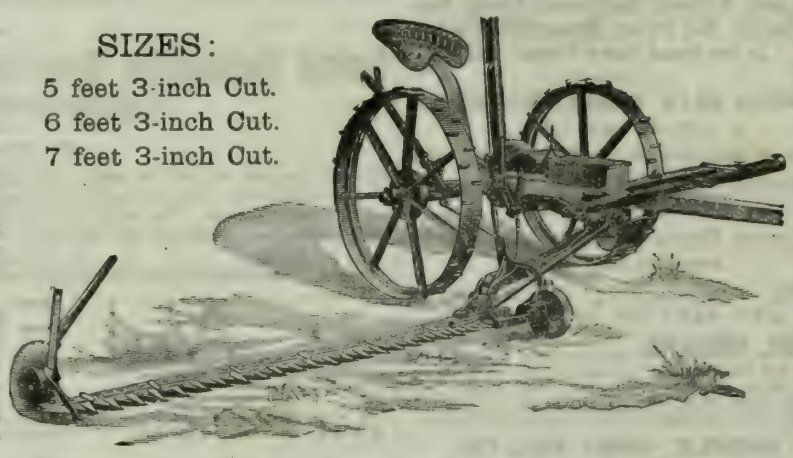
For doing an immense amount of cutting in a given time, and for leaving the grass in the very best shape for drying, the **Deering Front-Cut Giant Mower** has no equal. With its immense Cutter-Bar of 5 and 6 feet, it is well equipped to do almost **double** the amount of cutting that can be done by the common four-foot Mower, the only thing other factories have to offer to their customers. While the **Giant Mower** can do a giant's work, or about double that of the little Mowers, yet a team of ordinary horses draw it with ease day after day. In short, its draft is little if **any** greater than a common Mower. It is a continual source of wonder to farmers who see the **Giant** for the first time, how a Mower cutting such an **unusual** swath of 6 feet, can be pulled with so much ease by a small span of horses.

The whole secret of the wonderful light draft of the **Giant** Mower lies in the following four facts:

1st, and most important: The Cutter-Bar is supported by a strong steel spiral spring, so that the Bar does not rest heavily upon the ground, nor drag with all its heavy weight upon the ground. If it be borne in mind that about 40 per cent of the draft of a common Mower is caused by the dragging of the Cutter-Bar upon the ground, it will be no cause of wonder that the **Giant**, by saving this loss of power,

SIZES:

5 feet 3-inch Cut.
6 feet 3-inch Cut.
7 feet 3-inch Cut.



can turn it to cutting almost double the width of swath done by an ordinary Mower. In addition to the economy of power, there are some incidental advantages. It is free from side-draft. There can be no side-draft if the Cutter-Bar does not drag upon the ground. Another advantage had by having a supporting spring, is that the driver is assisted in lifting the Bar by the spring. Still another advantage is the increased traction gained by throwing the weight of the Bar and Drag-Bar upon the wheels.

2nd. The **GIANT** pulls easy, because of its **High Drive Wheels.**

3rd. It pulls easy because of its **large** and perfect-fitting **gears.** In the Giant there is no gear-cutting nor gear-grinding. Every part fits perfectly.

4th. It pulls easy because the shafts are small where they enter their bearings.

We feel a just pride in the **Front-Cut Giant** for the remarkable record it has made since its first introduction. Every farmer who has written us speaks enthusiastically of its wonderful cutting powers, its light draft for two horses, and its freedom from side-draft.

The advantage of course in buying a Giant is **Economy.**

Ask the Deering Agent in your town,,or address us for Special Circulars describing our machines in detail, with Illustrations.

M. K. LAUDEN, General Agent,

Warehouse, 1021 to 1027 Bryant St., SAN FRANCISCO, CAL.

THE IMPROVED LINK AND V-BELT COMBINED HARVESTER.

Manufactured by

The Stockton Wheel Co.,

STOCKTON, CAL.



For further information and Price Lists address STOCKTON WHEEL CO., STOCKTON, CAL., or the undersigned, importers of

Wagon & Carriage Materials and Hardware.

HOLT BROTHERS,

30 and 32 Main St.,

SAN FRANCISCO.

Our Improved Harvester will, without question or doubt, be the most popular machine in the grain field this year, as it certainly was last year, wherever used. Everybody who saw it working in the grain, running over rough ground, through hog wallows, over fields studded with trees, with as much ease and regularity as though the fields were smooth and level. Read the testimonials of several farmers who used our Harvester last year.

We have improved our machines over last year very materially, strengthening the weak points by putting in additional truss-iron braces, increasing or lowering speed when required, shortening the chain belts and substituting pivot and sliding boxes for the old fashion solid boxes, which will not give a particle as the frame warps or twists out of line. The greatest and most desirable change we make this year is discarding the sleeve on the main shaft, which caused us more trouble last year than anything else, by sticking to the shaft, making it grind the shaft and run hard. In a few weeks' time it wore away, leaving it rickety and causing the cylinder to run unsteady. This most desirable improvement makes it run one horse lighter at east.

Some of the agents of other manufacturers have sought to frighten farmers into buying their machines by telling them if they buy our Improved Harvester that they are liable to be prosecuted for infringement of patents. Now, these agents know, or if they don't know they ought to, that what they assert is false and malicious. Our Improvements are our own, and infringe upon nobody's patents. To allay all apprehension in the minds of intending purchasers, we say here that we will protect you against any and all losses on account of suits for infringements. The following are some of the advantages our Improved Harvester possesses over all others:

1. Our Improved Harvester runs FOUR horses lighter than any other machine made.
2. It is easily handled, and turns a square corner as readily as a mowing machine.
3. It is less liable to get out of order, and cheaper to keep in repair than any other machine.
4. It has no clumsy, expensive gearing to wear out or break.
5. It is run mostly by Link and V-Belts which, in case of breakage or accident, can be repaired in the field without loss of time.
6. Our Harvester makes no noise to frighten or irritate the horses, and makes less noise than ordinary headers.
7. Our Header is far the simplest and runs the lightest, and is the strongest and best. There are no Rickety Gears or Trembling Rods to break.
8. The Header may be raised and lowered instantly from any part of the Separator.
9. Our Harvester WEIGHS FIFTEEN HUNDRED POUNDS LESS than any other machine of the same capacity in the market.
10. It will cut, thrash, clean and sack more grain in a season, with less expense for labor and repairs than any other Harvester ever turned out.

Remember, all our Improved Harvesters are warranted to work well or no pay. Examine them before purchasing elsewhere. We shall sell our Harvesters upon their merits alone.

TESTIMONIALS:

GRAYSON, CAL., Feb. 21, 1887.

MESSRS. HOLT BROS.—Dear Sirs: As to your machine, we think it a good one. It saved the grain well. Had but little lost time; as to expense, $25 would cover the whole for the entire season. Number of acres cut, 1750. If we were going to buy another, we should certainly get one of yours. Respectfully, F. CARPENTER, R. BROWN.

OAKDALE, Feb. 21, 1887.

MESSRS. HOLT BROS.—Gents: I ran one of your Combined Harvesters last year. Cut 1950 acres of grain in 63 days. Did not lose over one day making repairs and replacing extras. Repairs cost about $10. I cut both light and heavy grain. It did good work, and the grain brought the highest market price, on account of its being better cleaned. I am perfectly satisfied with my purchase. I have worked with three other Combined Harvesters, and consider yours the best in the field for lightness of draft, durability and fine work.

Respectfully yours, D. W. CARMICHAEL.

GRIDLEY STATION, Sept. 22, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: I have used one of Holt Brothers' Link Chain and V-Belt Combined Harvesters, and consider it (in my opinion) the best Harvester made. This season I harvested 800 acres; averaged 23 acres per day, with 12-foot cut. I consider the draft is four horses lighter than either the Houser or the Young Machine. does better in all kinds of grain than either of the above-named machines. I run the whole season without any breakage.

GEO. WICKMAN.

TURLOCK, Sept. 16, 1886.

MESSRS. HOLT BROS., San Francisco—Gentlemen: Your letter of the 8th inst. received and contents noted. In reply I will state that I think your machine is the best that is made. I cut 1350 acres of grain with it in 42 days. I did not have to repair the machine from the time I started till I quit running it. It runs lighter, and I think does the best work of any machine that I have seen. Very respectfully, ED. McCABE.

DIXON, Sept. 10, 1886.

MESSRS. HOLT BROS., San Francisco—Dear Sirs: Yours of Sept 8th at hand and contents noted. Will try to answer your questions as nearly correct as I can. Of course I have not seen all of the different Harvesters working, but from what I have seen and learned, will say that so far as my information and experience goes, your Link and V-Belt Harvester is, in all respects, the best in use. It did as good work, if not better work, than the Houser here. It pulls from two to four horses lighter than the Houser. My repairs were nothing; was not detained at all in my harvest on account of breakage. I cut 600 acres in 23 days, and moved four miles three different times. Yours truly, JOS. KLINE.

And Many Others.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. May.5-11.	Portland. Rain	Temp.	Wind.	Weather.	Red Bluff. Rain	Temp.	Wind.	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S.Francisco. Rain	Temp.	Wind.	Weather.	Los Angeles. Rain	Temp.	Wind.	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.77	54	S	Fr.	.00	62	S	Fr.	.00	66	SW	Fr.	.00	58	W	Fr.	.00	76	W	Cl.	.00	66	SW	Cl
Friday	.85	48	S	Cy.	.39	46	S	Cy.	.00	60	SW	Cy.	.00	55	W	Th.	.00	66	S	Cy.	.00	66	W	Cy.
Saturday	.34	50	S	Cy	.00	58	S	Cy.	.00	62	SW	Cl.	.01	55	W	Cl.	.00	68	W	Cl.	.00	64	W	Fr.
Sunday	.84	46	SW	LR	.00	66	S	Cy.	.00	66	SW	Cl.	.00	66	W	Cy.	.00	74	W	Cl.	.00	66	W	Cl.
Monday	.17	46	Nw	LR	.06	62	S	Fr.	*.—	60	SW	Cy.	.02	59	W	Cy	.00	72	W	Cl.	.00	64	W	Cl.
Tuesday	.19	44	SW	LR	.00	58	N	Fr.	*.—	54	Nw	Cl	.00	56	W	Cl.	.00	68	S	Cl.	.00	64	SW	Cl.
Wednesday	.02	52	Nw	Fr.	.00	60	N	Cl.	.00	58	Nw	Cl.	.00	57	Nw	Cy.	.00	66	SW	Cy.	.00	64	W	Cl.
Total	3.18				45				*.—				.03				.00				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

THE MECHANICS' FAIR.—A large meeting of prominent citizens was held at the Mechanics' pavilion in this city on Tuesday evening, at the call of President Cornwall, of the Institute. The object was to interest the city in advancing the exhibition to be held this autumn, in view of the great number of strangers now visiting the State. It was stated that the Institute would expend $35,000 upon the exhibition, and if the citizens would contribute, a much larger fund might be secured. The proposition seemed to commend itself to the meeting and favoring resolutions proposed by Senator Williams were adopted. Several speakers, including Senator Hearst, M. M. Estee and others, favored the proposition as an important means of adding to the fair fame which California is now enjoying.

What Would the World Do

Without woman? asks the essayist who starts out to say something new on this oft-treated subject. Of course, the human element of the world would not exist without woman, so the question is gratuitous. It would have been far more sensible to ask: What would the world do without the salvation of woman, without a panacea for her physical ills and a cure for her peculiar diseases? In a word, what would the world do without Dr. Pierce's "Favorite Prescription," the great remedy for female weaknesses? It is indispensable for the ills of womankind.

Nightmare,

Sick-headache, depression of spirits, and want of ambition are symptoms of a diseased liver. The lungs, stomach, and bowels are all in sympathy. Life is only a living death. Dr Pierce's "Golden Medical Discovery" acts upon the torpid liver, and effectually removes all these difficulties and disorders. Nervous feelings, gloomy forebodings, and irritability of temper all disappear.

Young or middle-aged men suffering from nervous debility and kindred weaknesses should send 10 cents in stamps for large illustrated treatise suggesting sure means of cure. World's Dispensary Medical Association, Buffalo, N. Y.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

MESSRS. ALLISON, GREY & Co., wholesale commission merchants, have removed to the corner of Washington and Front Sts., taking stores Nos. 501 to 509 (inclusive) Front St. Their increasing trade demanded enlarged premises and the new location and ample stores are just suited to their growing business.

AMERICAN EXCHANGE HOTEL,

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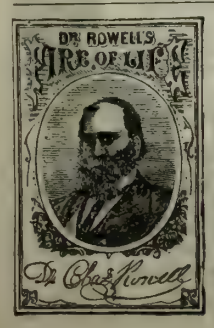
One door from Bank of California.

The above well-known hotel offers superior accommodations to parties visiting the city. The table is kept at top grade and the prices are within the reach of all.

RATES—$1.00, $1.25 and $1.50 per day.

Free Coach to and from the Hotel.

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List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MAY 2, 1887.

362,239.—SASH FASTENER—W. R. Abrams, Ellensberg, W. T.

362,240.—CONDUCTOR'S TRANSFER PUNCH—S. Adler, S. F.

362,258.—BALANCED PULLEY FOR CABLE RAILROAD—W. Dunham, Igo, Cal.

362,262.—VISE—E. H. Farmer, Gilroy, Cal.

362,378.—DRESS-CUTTING CHART—Thos. Hawkins, S. F.

362,383.—PRUNING SHEARS—John Jett, S. F.

362,285.—SULKY CULTIVATOR—I. B. Kilgore, S. F.

362,162.—WALL-DECORATION COMPOUND—Kutzkan & Otto, S. F.

362,454.—CLOD CRUSHER—D. Lubin, Sacramento, Cal.

362,292.—CAR WHEEL—W. H. Masterman, S. F.

362,226.—BOOK SUPPORT—P. O. Peterson, S. F.

362,396.—DEVICE FOR TESTING SPEED OF HOUNDS—J. A. A. Pinard, San Jose.

362,227.—VINEYARD WEED CUTTER—J. Porteous, Fresno, Cal.

362,228.—RAISIN STEMMER—J. Porteous, Fresno, Cal.

362,110.—FIREARM—E. E. & J. H. Redfield, Linkville, Ogn.

362,464.—HARROW, ETC.—S. Rothchild, Pendleton, Ogn.

362,230.—EMBROIDERY FRAME—Chas. Schaubel, S. F.

362,231.—WAGON REACH—A. Singer, Lovelocks, Nev.

362,338.—UNIVERSAL JOINTER—Thos. Walker, Portland, Ogn.

362,136.—VENEER-BOX—S. F. Woodworth, Clipper Gap, Cal.

14,343.—TRADEMARK—W. T. Coleman & Co., S. F.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

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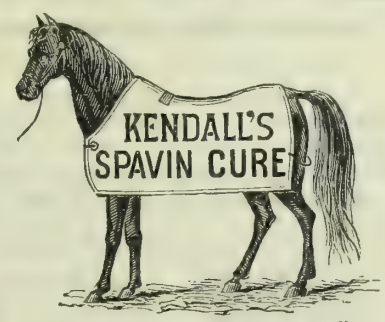
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Price $1 per bottle, or six bottles for $5. All Druggists have it or can get it for you, or it will be sent to any address on receipt of price by the proprietors, Dr. B. J. KENDALL Co., Enosburgh Falls, Vt.

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SAN FRANCISCO.

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New; capacity, 20,000; choice location.

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P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

W. J. MARSH & SON, Dayton, Nevada. Registered Shorthorns of choicely bred strains.

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J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

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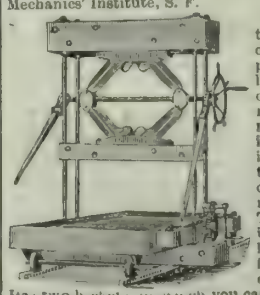
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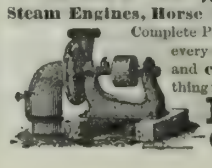
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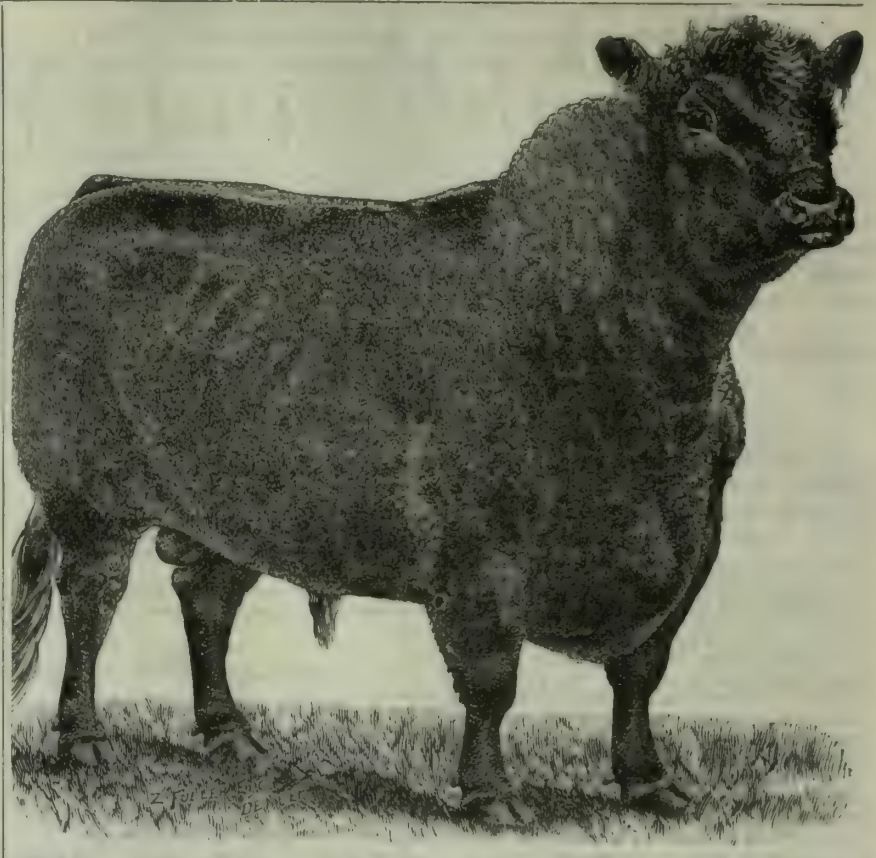
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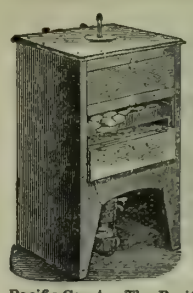
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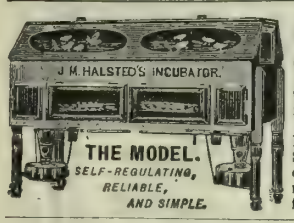
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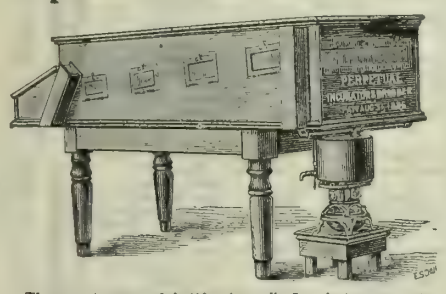
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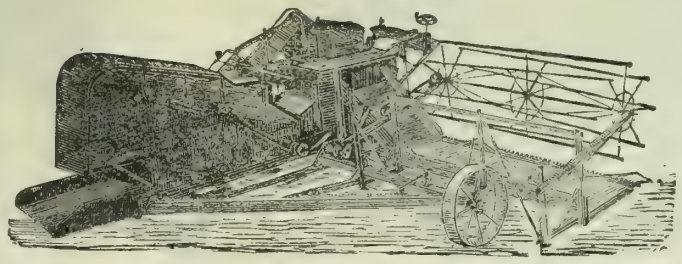
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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 11, 1887.

The past week has been characterized by unusual cool weather for the season of the year. Continued dry weather creates fear in many sections regarding crops, that heretofore did not express any fear regarding the outcome. The wheat market abroad has been gaining strength with an advance reported on last week's sales. To-day's cables are as follows:

LIVERPOOL, May 11.—Cargoes off coast, quiet; cargoes on passage and for shipment, quiet, but steady; Cal. wheat off coast, 39s 6d; Cal. wheat just shipped, 39s 6d; Cal. wheat nearly due, 39s 6d; Liverpool wheat, spot, upward tendency; Liverpool wheat, Cal. 7s 10d to 8s 1d.

Foreign Review.

LONDON, May 9.—The *Mark Lane Express*, in its review of the past week, says: Values of English wheat are against buyers. In provincial markets there is scarcely any offer, and an advance of 6d@1s is asked. The sales of English wheat during the week were 60,492 quarters at 33s 2d, against 65,930 quarters at 31s 5d during the corresponding week of last year. Trade in Foreign wheat is steady and rather against buyers. Corn is in short supply and values are stiffening. Two cargoes of wheat arrived; one cargo was sold and one was withdrawn. At to-day's market wheat was quiet and prices were unchanged. Flour was firmer at an advance of 3@6d on the week.

Crops at the East.

CHICAGO, May 8.—The *Farmers' Review* will print the following crop report this week: The rains have been beneficial to winter wheat in all States reporting this week, but more is required to give that crop and spring wheat more rapid growth. The seeding of spring wheat is completed, and in many instances the crop is above ground and promising well. The average condition of winter wheat in the 14 counties in Illinois reporting this week is 88 per cent. The general average condition of winter wheat for the Indiana counties reporting this week is 87 per cent. The condition of winter and spring wheat in Iowa is reported as fine, but the acreage is small. The condition of spring wheat is good in nearly every report. The condition of winter wheat in Kansas on the whole is not promising. In Kentucky the condition of the crop is quite satisfactory, and the same may be said of Michigan with the exception of Berrier county. In Minnesota the winter wheat is in fair condition, but spring wheat is not above the ground yet. Prospects in Missouri are very good for a full crop of winter wheat. Winter and spring wheat in Nebraska is in fairly good condition, but more rain is still required. The average condition in Ohio is rather low. The condition of the crop in Wisconsin, and also in Dakota, is fair. The meadows and pastures are improving, but in many localities rain is needed.

Eastern Wheat Markets.

NEW YORK, May 8.—Wheat has been bullish on very active, excited and feverish markets. Prices sharply advanced on extensive covering purchases made on foreign as well as home account. The close was barely steady, and the temper of traders inclined to be bearish for further reactions in the absence of stimulating news. Final prices were down ¾ of a cent for May, at 96c; ⅝ for June, at 95½; ⅞ for July, at 94½; and ½ for August, at 93.

NEW YORK, May 11—12 M.—98⅛c for cash, 96⅛c for May, 96⅛c for June, 95⅝c for July and 93⅛c for August.

CHICAGO, May 11—12 M.—84⅛c for cash, 84⅝c for May, 86⅛c for June, 85⅝@85¾c for July, 84⅛c for August and Sept.

Eastern Wool Markets.

BOSTON, May 7.—The unsatisfactory tone of the wool market, noticed for a long time past, continues. The sales for the past week were small, amounting only to 1,660,600 pounds. The market is steady and there is no change in prices to notice. Oregon wools are steady and in fair demand. There were sales of 10,000 lbs of valley at 23@25c, 20,000 lbs of Eastern at 16@20c, 125,000 lbs of Eastern at 16½c and 9000 lbs Eastern on private terms. There have been sales of 122,000 lbs of new spring California wool on private terms. Most of the sales, it is understood, were on a basis of 60c for long staple and 57c for fair staple. Buyers are offering 55c to 58c for clean quite freely. Fall wools are very full. Large stocks are in the hands of commission merchants, which will probably produce some competition.

The Philadelphia market was less active. Among the sales were 10,000 lbs Montana fine and 21,700 Territory, and fine medium, at 22 cents; 10,000 lbs Territory, three-eighths spring and fall, 24 cents; 4000 lbs Territory improved, 20@21 cents.

California Products at New York.

NEW YORK, May 8.—Beans—The demand is moderatively active, but prices are strong on light receipts. California Lima, $1.80.

Green Fruit—Small lots of California cherries are arriving which bring $1 ₩ lb. Next week a better supply is expected. California tangerines are selling at $4@4.50 ₩ box and 75c a dozen. Extra good cargoes are scarce. The seedless Navel variety fetch $1.50 a dozen.

Honey—Moderate orders for California honey continue to be received, but as the stock is under control, buyers are unable to do better than 5½c. Freight rates are against further shipments from the Pacific Coast.

Seeds—California brown mustard has been in demand, and sales are reported of 500 bags at 4½@5c; quoted at the close at 5@5¼c; California yellow mustard quiet at 4¼@4½c.

New York Hop Market.

NEW YORK, May 8.—The variable reports that come in from the State hopfields make up about all there is in the way of life in the market. In view of last year's experience dealers show no inclination to speculate on crop receipts, and as the brewers are still buying indifferently, prices are barely maintained. The Cooperstown *Journal* says: We have before us reports from a large portion of the hop district of this State. As a rule, early indications give promise of a very light crop. A great many old yards will be plowed up and put to better use, and very few new yards will be set out. This condition of things tends to keep the hops of '85 and '86 off the market. N. Y. State 1886 common to good, 15@17c; do 1885 medium to best, 6@10c; Pacific Coast 1886 best, 18@20c; do common to good, 14@17c; do 1885 good to prime, 7@9c.

California Fruit in Chicago.

CHICAGO, May 7.—California lemons are in moderate demand and slow at $2@3 ₩ box. Oranges are in fair supply. Choice fruit is held steady, while common is rather easy. There is no material change in prices. Bright Riverside, good to fancy, ₩ box, $3.50@4.50; San Bernardino, $3.50@4.25; Santa Ana, $3@3.25; St. Michael, paper rind, $3.75@4; Orange, $2.50@3; Los Angeles, $2.75@3.25; Navel oranges, according to quality, $5@6; Duarte, $3@3.50; San Gabriel, $2.25@3; blood oranges, fancy, $5@7; culls, $2.

Dried fruit is steady. There is a moderate demand for all cuts of apples of choice quality and fine grades, and they are not plenty. There are some ordinary lots of quarter sun-dried, and they are dull, but all other lines of apples sell fairly and rule steady. Peaches continue quiet; the supply consists mainly of old peaches, which are uncalled for, while new, which would sell, are very scarce. California dried fruits quiet. The supply is small and is in moderate demand. Prunes, French, ₩ lb, 8@9¼c; plums, pitted, 10@11c; peaches, halves, 11@12½c; do halves, pared, 20@21c; figs, 6@8c; nectarines, 9c; pears, 8@12c; raisins, London layers, 20-lb boxes, $1.40@1.50; loose, Muscatel, ₩ box, $1.20@1.30; California layers, ₩ box, $1.25@1.35.

Dried Fruit and Canned Goods East.

NEW YORK, May 8.—Dried Fruit—Raisins have met with little more attention through the jobbing trade, and prices are more steady. Two-crown loose California $1.25@1.30; do London layers, $1.50@1.55. Prunes firm, with a steady jobbing request. Sales 75 cases at 3¾@4c. Currants firm at 5c@5½c. Citron dull, offerings limited; quoted 16¾@17c.

Canned Goods—For all descriptions there is a moderately active consuming trade, and in many lines the tendency of prices is better. Tomatoes continue to exhibit considerable strength. Peas are firmer with 2 lbs quoted at $1.25@1.50. Lima beans are in better demand. Gallon apples are scarce and held firmly. Three-gallon pie peaches are in light supply. California canned fruit of "extra" quality has been in demand of late. Contracts are reported made for forward deliveries of new crop. "Standard" goods, however, are not at the moment inquired for. The prices quoted for the next pack are about 10 per cent less than those at the opening of last year. California canned peaches and pears, $2.50@2.75; plums and grapes, $2@2.10; apricots, $2.15@2.25.

Local Markets.

BAGS—The arrival of large consignments has weakened the views of holders. Sales are reported at concessions on asking prices, which are 5¼@5¾c for standard Calcuttas.

BARLEY—The market has ruled steady but firm throughout the week, with brewing grades in more active demand. On Call, transactions in options were only fair. The following are to-day's sales:

Morning Session: Buyer season—200 tons, $1.12½. Buyer 1887—100 tons, $1.27. Seller 1887—200 tons, $1.09½; 200, $1.09⅝; 100, $1.09¾ ₩ ctl. Afternoon Session: Buyer season—200 tons, $1.12; 200, $1.12½; 100, $1.12¾. Buyer 1887—200 tons, $1.27¾; 100, $1.27½. Seller 1887—100 tons, $1.09¾ ₩ ctl.

BUTTER—Notwithstanding receipts have been heavy, prices continue strong, owing to the free demand from packers and dealers. Stocks are kept well cleaned up.

CHEESE—The market is barely steady, but at the close an improved demand is reported.

EGGS—Heavy offerings of Eastern at lower prices have weakened Californian still more. The supply here is largely in excess of requirements.

FLOUR—The market is strong at full figures. The demand is in a small way and chiefly local.

WHEAT—Transactions on Call the past week have been large, with buyer season and spot options receding and seller '87 advancing. The latter option, it is reported, has been freely shorted. Sales on Call to-day were as follows:

Morning Session: Buyer season—100 tons, $1.84; 600, $1.83¾; 100, $1.83½; 100, $1.83¼; 400, $1.83; 400, $1.82½. June—100 tons, $1.84. July—100 tons, $1.81½. August—200 tons, $1.78¾; 100, $1.79⅜; 700, $1.80; 100, $1.80¾; 100, $1.81. Buyer 1887—400 tons, $2.05¼; 200, $2.05; 100, $2.04¾. Seller 1887—500 tons, $1.77¼; 300, $1.77⅜; 2500, $1.77½; 3500, $1.77⅝; 300, $1.77¾; 500, $1.77⅞; 1800, $1.78 ₩ ctl. Afternoon Session: Spot, season's storage paid—100 tons, $1.81; 100, $1.80¾. Buyer season—100 tons, $1.83; 100, $1.82½; 300, $1.82¾. Buyer 1887—200 tons, $2.04¼; 100, $2.04½; 700, $2.04. August—500 tons, $1.81. September—100 tons, $1.79. Seller 1887—200 tons, $1.77⅞; 700, $1.77¾ ₩ ctl.

COMMUNICATED.]

Market Information.

Cereals.

Crop advices in this State continue unfavorable. The plant on adobe and sediment land is, as a rule, reported poor, but on clay soil the stand is more promising, as is the plant on the foothills. Rain is a crying necessity to insure even half of an average yield to the acre. Oregon and Washington Territory advices continue favorable. East of the Cascade mountains the crops of wheat, barley and flax promise to be unusually large.

Eastern crop advices, taken as a whole, are less favorable than on April 1. European crop prospects are essentially unchanged.

Eastern advices report heavy transactions in actual wheat at Chicago. One large firm sold a line of 1,600,000 bushels, equal to 960,000 centals or 48,000 short tons. One of the members of the firm was in this city looking after wheat, and it was probably under his advice that the sale was made. It is claimed that the large bulk of the visible supply at the East is held by the syndicate. It is also claimed that the syndicate will be compelled to enter the market for the coming season's crop on a larger scale than they are now operating upon.

Our market the past week, so far as can be ascertained, has been void of transactions in actual wheat, but on Call transactions have been free in the different options. Spot wheat, season storage paid, ranged in value from $1.81¼@1.82½ and even higher. These sales virtually fix the price of actual wheat. In options the dealings have been very heavy in buyer '87 and also seller '87, and at strong prices. It now looks as if the syndicate is trying to control the incoming crops. Two vessels were chartered the past week to load wheat for the United Kingdom.

The exports of wheat from this port last month aggregated 570,768 centals, and of flour 79,923 bbls.

The quantities of flour and wheat shipped from California in the first ten months of the current cereal year have been as follows:

	Flour. Bbls.	Wheat. Centals.
July	105,251	754,423
August	73,791	853,050
September	91,801	1,841,977
October	124,654	1,195,379
November	98,271	1,946,382
December	117,352	1,568,126
January	72,776	1,186,591
February	83,760	429,884
March	79,841	442,504
April	79,923	570,768
Totals	927,420	10,789,084

Reducing flour to wheat, the combined shipments of flour and wheat for the first ten months of the year compare as follows:

	Centals.
1882–83	16,307,400
1883–84	13,298,000
1884–85	17,994,800
1885–86	12,453,000
1886–87	13,571,300

The shipments for the past ten months are equal to 678,567 tons.

Feedstuff.

Choice hay continues to rule steady, under light stocks. The loss by fire in this city on Tuesday last of about 1000 tons of hay is severely felt. Some new alfalfa hay, this year's crop, was received on Monday last and sold at $8@9 per ton.

Bran, middlings and other ground feed are strong, with a good demand ruling.

Live-Stock.

Although there is not so great a selling pressure, the market is barely steady for bullocks, owing doubtless to the lessened consumption. Mutton sheep are steady. Hogs are slow, with only a block demand reported. In horses there is nothing new to report. A span of matched bays, good steppers and fine appearance, was sold at a slight advance on $1000. This is considered a fancy price. Milch cows are in light inquiry.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8c; first grade, grass fed, 7½c per lb.; second grade, 7@—c; third grade, 6c.

MUTTON—Ewes, 6½; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8½c; small, 6@8c.

PORK—Live hogs, 4¾@5c for heavy and medium; hard dressed, 7½@8¾c per lb; light, 4½@5c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Old potatoes hold to strong prices under light supplies and a good demand. Some Utah are coming in. New potatoes are shading off, the quality is improving, and consequently more are going into consumption.

Onions are fairly strong, particularly for choice hard keepers. New onions are slow, as the quality is still poor.

In garden truck, asparagus has held up well. Sweet peas are in good demand, chiefly from canners, causing prices to rule fairly steady at the low prices. Other vegetables have fluctuated according to the supply and demand.

Fruits.

Oranges came in more freely the past week, causing low prices to rule, owing to the lessened consumption. Limes and lemons are steady.

The demand for strawberries the past week was good, keeping stocks well cleaned up. Cherries are coming in more freely, causing lower prices to obtain, particularly for the poorer qualities. Raspberries are in light receipt. Gooseberries are hard to place.

The stock of dried fruits is very light, causing a higher range of values to obtain in California French prunes and unpeeled peaches.

Raisins, particularly choice, are in light supply, and as overland freights are lower, the feeling on the part of holders is stronger.

The first cherries received this year came from Robinson Bros., Vacaville. They also sent the first to this market last year.

Patrons of this paper sending first shipments of fruits, vegetables or cereals to this market will confer a favor by having the consignee report it to this paper so we can publish the same.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	245,951	248,004
In port, disengaged	113,001	28,474
In port, engaged	3,404	29,906
Totals	362,356	306,384

The above gives a carrying capacity as follows: 1887, 579,769 short tons; 1886, 490,214 short tons; increase over last year, 89,555.

Owing to the reduction in overland freights, wool is in better demand, with buyers willing to pay an advance. Some choice clips were placed at a slight advance on top quotations.

In poultry, choice large young fowls are higher and in good demand. Receipts are light.

Nuts are very scarce, with a further advance reported in walnuts and soft-shell almonds.

Honey is strongly held, owing to light stock and a probably light crop this year.

With lower overland freights there is more disposition to advance beans, as the stock here is light.

Mustardseed holds strong, due to light supplies and unfavorable crop advices.

Hops are in good demand, with holders asking more money, owing to the scarcity of choice goods.

Tallow continues scarce and high, not only here but also at the East.

Hides are stronger.

San Francisco, May 11, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 11, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 75
Butter	1 60	@	1 75
Pea	1 75	@	2 00
Red	1 40	@	1 55
Pink	1 25	@	1 45
Large White	1 75	@	1 85
Small White	1 75	@	2 00
Lima	1 75	@	2 25
Fld Peas, blk eye	1 00	@	1 05
do green	1 90	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC			
BUTTER.			
Cal. fresh roll, lb	15	@	19
do Fancy brands	20	@	—
Pickle roll	18	@	20
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE.			
Cheese, Cal., lb	9	@	10½
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	19	@	—
do, store	16	@	18
Ducks	—	@	—
Oregon	—	@	—
Eastern	16	@	16½
FEED.			
Bran, ton	21 50	@	22 50
Cornmeal	24 00	@	25 00
Gr'd Barley ton	25 00	@	26 00
Hay	10 00	@	14 00
Middlings	25 00	@	26 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR.			
Extra, City Mills	4 70	@	5 45
do Co'ntry Mills	4 20	@	5 20
Superfine	3 45	@	4 20
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 75
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 07½	@	1 15
Yellow	1 05	@	1 10
Small Round	1 10	@	1 20
Nebraska	1 05	@	1 10
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 10	@	1 25
Wheat milling			
Gilt edged	1 85	@	1 90
do choice	1 80	@	1 85
do fair to good	1 75	@	1 80
Shipping choice	1 80	@	1 87½
do good	1 75	@	1 80
do fair	1 70	@	1 75
HIDES.			
Dry	14	@	16
Wet salted	7½	@	8½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Silversain	2 00	@	4 50
do new	1 00	@	1 50
NUTS—JOBBING.			
Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hdshl	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	2 25	@	3 00
Early Rose	1 60	@	1 85
Cuffey Cove	1 80	@	2 25
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	1 75	@	2 10
Humboldt	2 00	@	—
do Kidney	2 00	@	—
Chile	—	@	—
do Oregon	1 75	@	2 50
Peerless	1 90	@	2 50
Salt Lake	—	@	—
New Potatoes	1½	@	2½
POULTRY AND GAME			
Hens, doz	6 00	@	7 50
Roosters	6 00	@	11 00
Broilers	3 00	@	7 00
Ducks, tame	5 50	@	7 00
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 25	@	1 75
do Goslings	2 00	@	2 25
Wild Gray, doz	—	@	—
Turkeys, lb	19	@	21
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon, Heavy, lb	9	@	10
Medium	9	@	10
Light	11	@	12½
Extra Light	13	@	13½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	12½	@	15
do Eastern	14½	@	15½
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet; German	4½	@	5
do Common	1	@	10
Mustard, white	3 00	@	3 75
Brown	3 00	@	3 75
Rape	1½	@	2
Ky. Blue Grass	12	@	13
3d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	20	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW.			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	20	@	22½
Sact'o valley	16	@	19
Free Mountain	19	@	22½
N'hern defective	—	@	—
S Joaquin valley	12	@	15
do mountain	15	@	17½
Cava'v & Fb'll	15	@	17½
Oregon Eastern	17	@	22
do valley	19	@	25
Southern Coast	10	@	15

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 11, 1887

Apples, bx com	1 50	@	—
do choice	2 50	@	3 00
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries white bx	50	@	1 00
do black bx	1 00	@	2 25
do Royal Ann	—	@	—
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Gooseberries lb	1½	@	2½
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	9 00	@	10 50
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	3 00
do Navels	3 50	@	5 00
do Panamas	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, dos	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries dr	1 50	@	2 00
Strawberries ch	3 50	@	7 50
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	7
do evaporated	12	@	13
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	13	@	13½
Citron	25	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
do evaporated	20	@	30
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8	@	12½
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, dos	—	@	—
Asparagus ₩ bx	75	@	1 25
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	25	@	30
Pumpkins pr ton	—	@	—
Squash, Marrow fat, ton	10 00	@	12 00
do Summer bx	—	@	—
String beans lb	3	@	7½
Tomatoes box	1 00	@	2 00
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	75	@	1 00
Carrots, sk	35	@	—
Cauliflower, dos	—	@	—
Eggplant, ₩ lb	15	@	25
Garlic, lb	1½	@	2½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, sk	35	@	60
Sweet Peas	50	@	1 00
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	20
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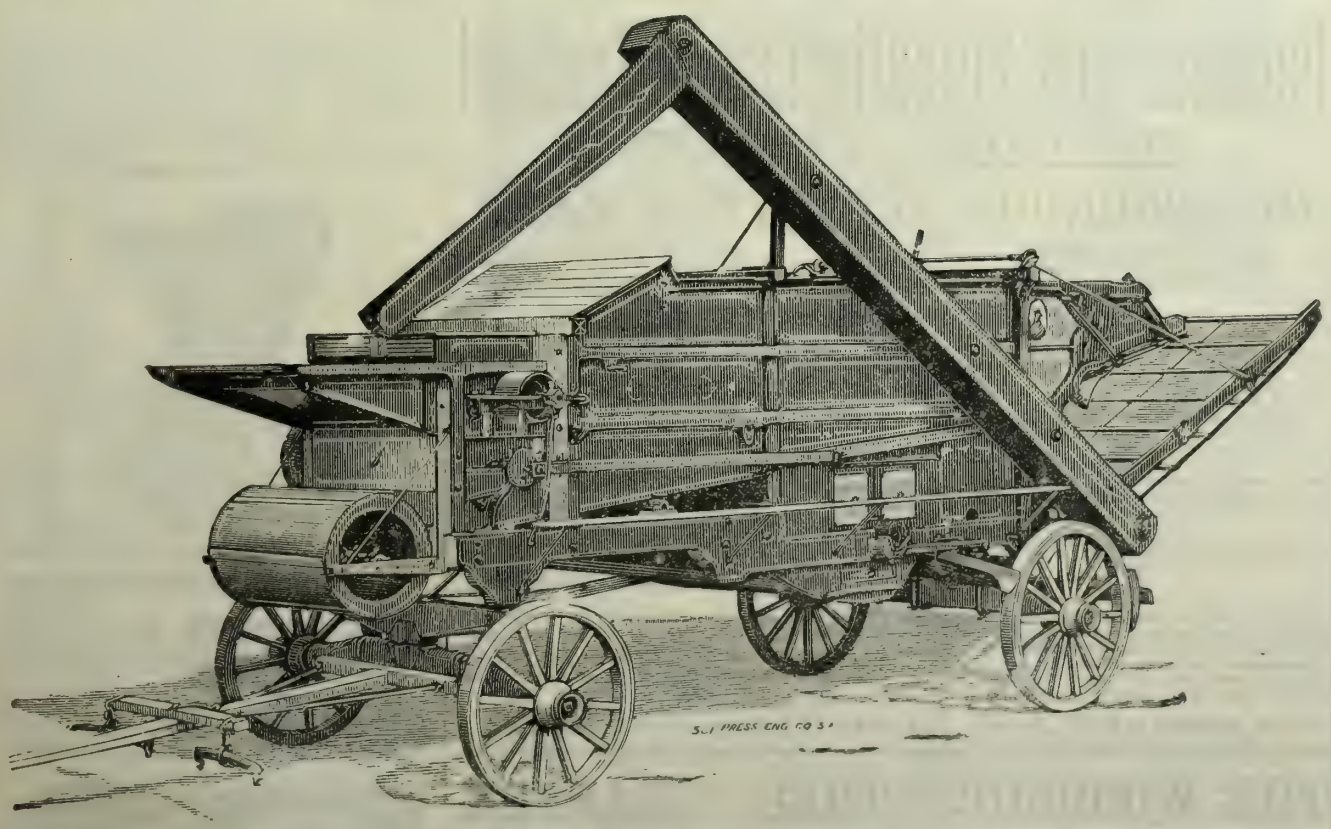
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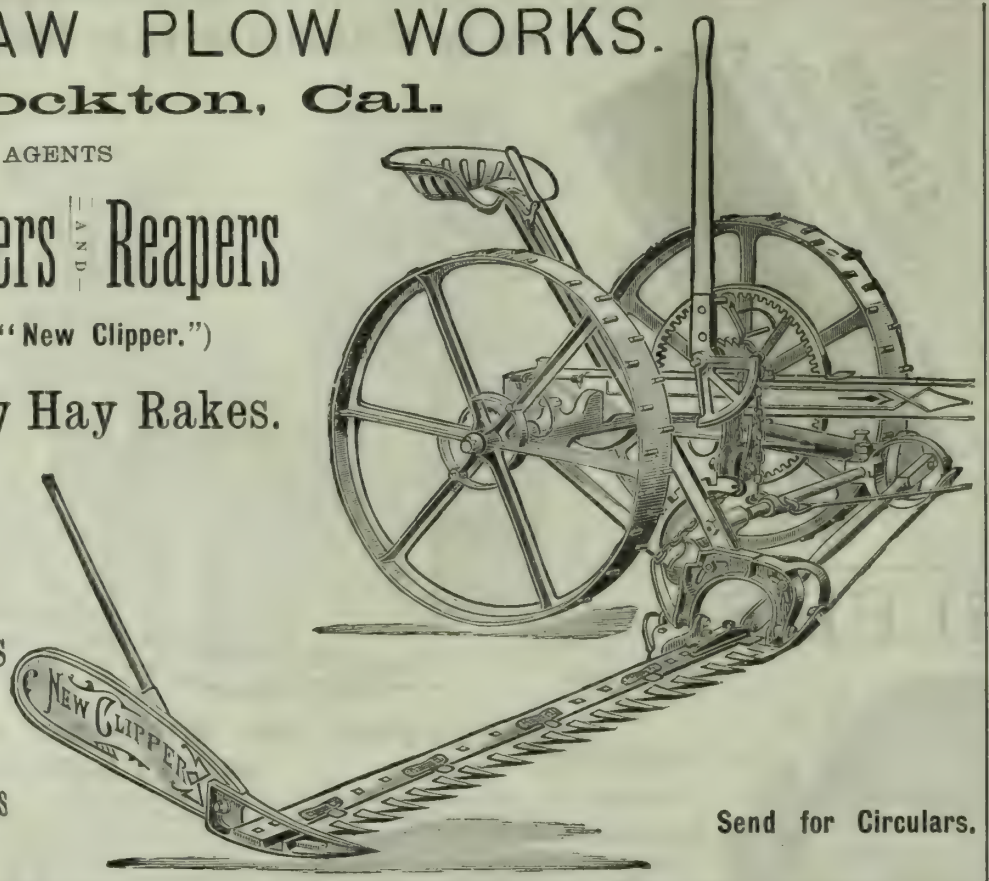
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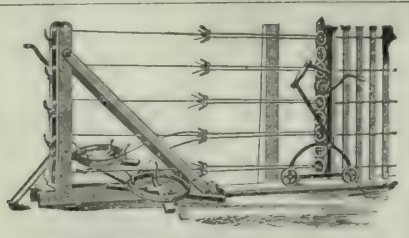
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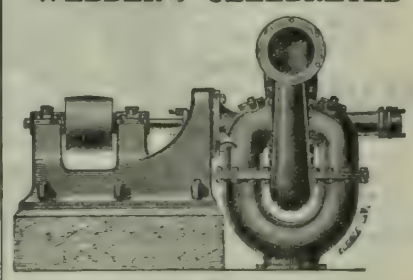
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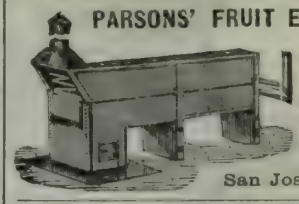
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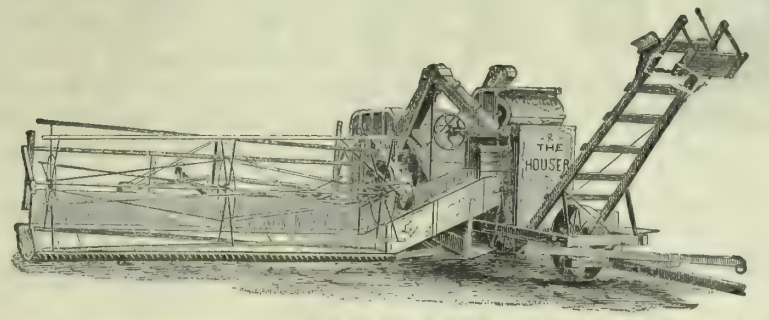
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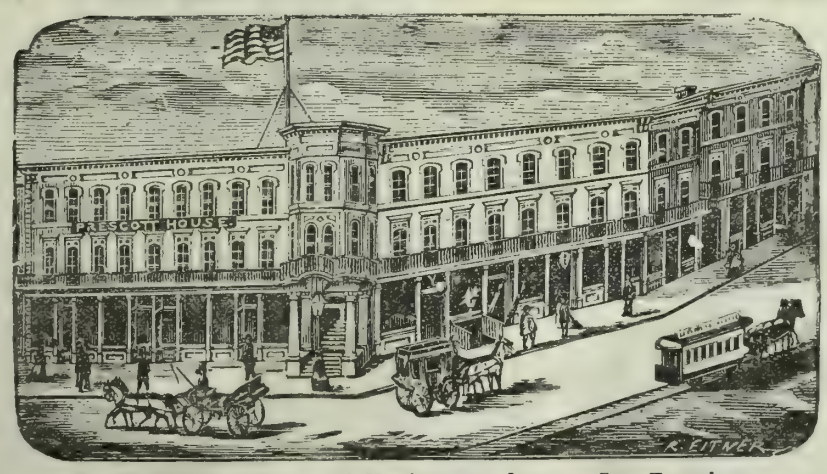


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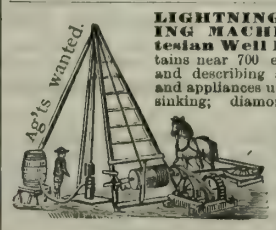


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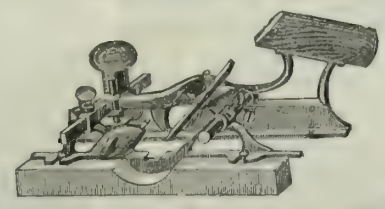
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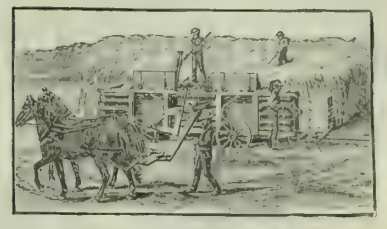


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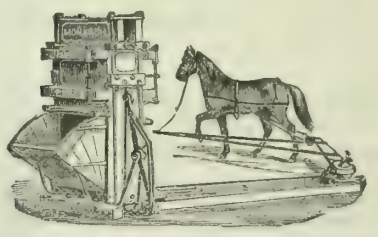
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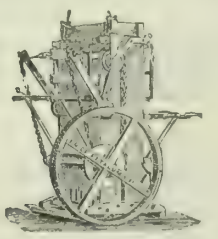


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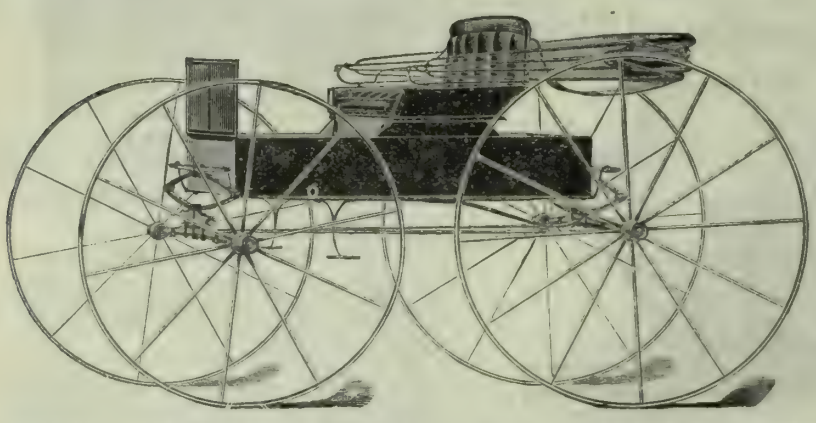
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SAN BERNARDINO, CAL.

MESSRS. TRUMAN, ISHAM & HOOKER, San Francisco—Gentlemen: Our 12-foot "Randolph Header" which we purchased of you last season, worked alongside of the Hodges-Haines, they using 6 horses, while we only used 4 small horses, we averaged 28 acres per day, they averaging 23, and it was on very rough, hilly ground. I think the Randolph the lightest running, and the best for lodged or broken down grain on the Coast; you can cut almost as close to the ground with it as you can with a mowing machine. We calculate to cut all our hay this year with it. You will thus see that the "Randolph Header" will pay for itself in one season over any other Header on the Coast.

Yours very truly, FRANK MOIR.

Send for prices and further description. Do not purchase elsewhere until you have examined this machine thoroughly. It is the cheapest Header in the market. We are sole agents for the Pacific Coast.

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PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 21.] SAN FRANCISCO, SATURDAY, MAY 21, 1887. [$3 a Year, in Advance. Single Copies, 10 Cts.

Wool-Growers in Council.

The National Convention of Wool-Growers which was held in St. Louis last week must exert a marked influence in convincing the wool-growers of the country that their voice is still heard, and that the replacing of their industry upon a favorable basis is still a living issue in our public affairs. The last few years have been full of discouragement for the woolmen, owing to the facility given to the introduction of foreign wools, and they will generally feel gratified at the firm stand taken by General Robinson, of Ohio, chairman of the convention, in his opening address, when, after showing by statistics the decrease in the production of wool and the decline in the interest, he earnestly advocated the reenactment of the tariff of 1867, which started our wool interest upon a new career, and made possible the greatness which it attained during the decade and a half preceding the enactment of 1883.

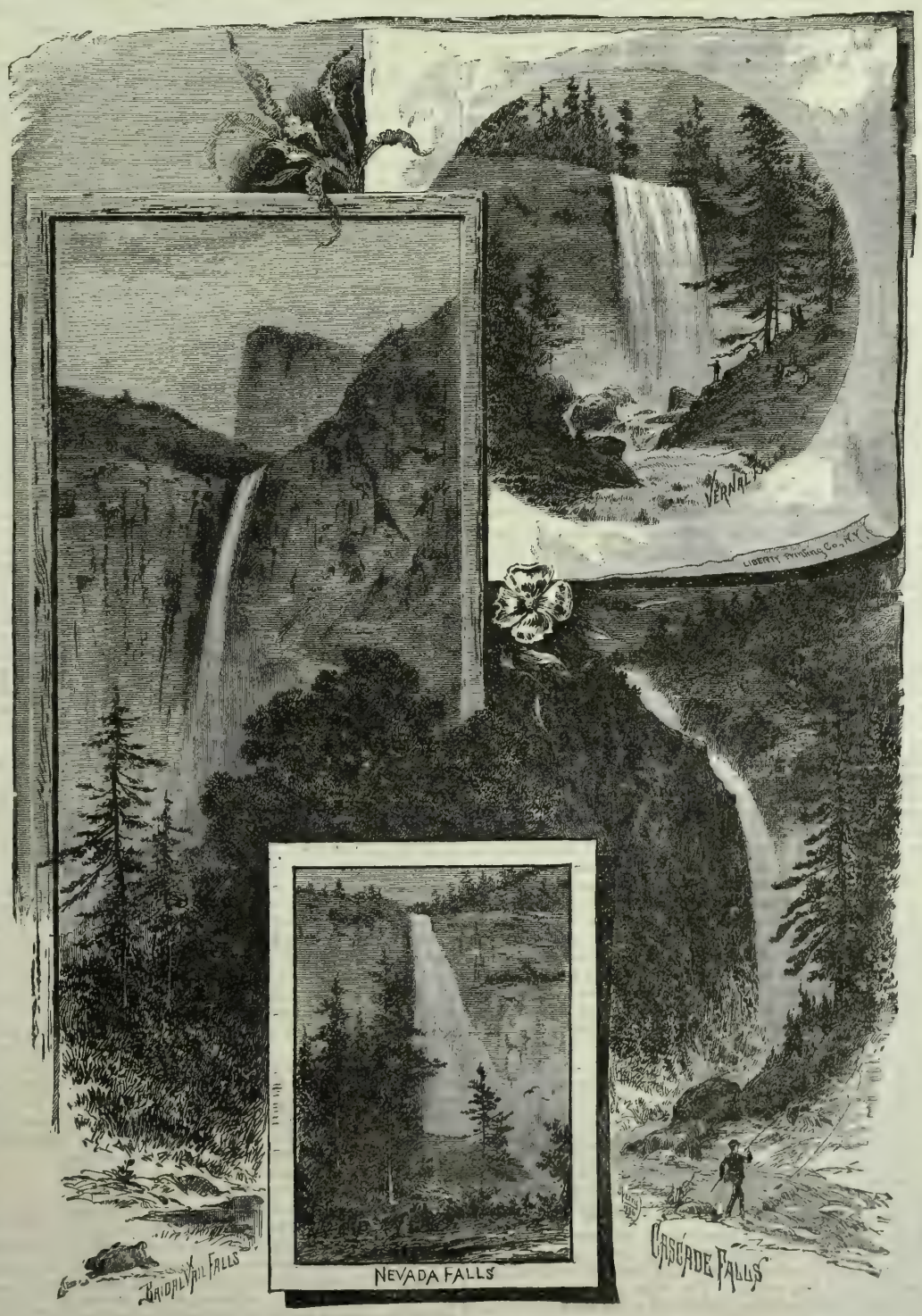
The resolutions adopted by the Convention had a similar ring. They recommend unanimity of action by all wool-growers, manufacturers and others interested in the production and sale of wool, to procure the repeal of the present tariff laws upon wool and the passage of a law protecting American wool interests. They also urge that certain remedial laws be enacted to prevent the use and evasion of the present law while in force, and to provide for sending delegations to Washington to attend the next Congress, to influence legislators in behalf of the wool interests. They also advocate the appointment of an attorney to represent the association before all United States courts and the treasury department. Members of the Wool-Growers' Association are urged to attend the conventions of the political parties, with which they respectively co-operate, and, so far as possible, secure the nomination of satisfactory candidates. The convention also earnestly requested the wool associations of the whole country to unite in demanding from the railroads proper freight classification of wools in transit.

It would be easy to unite the wool-growers of the country on these propositions, but the National Association cannot expect much help from the Pacific Coast in carrying out one plank of their platform in which they protest "against discrimination in railroad rates against Texas, Colorado, and other points in favor of California in the shipping of wool East." The California wool-growers deserve better of their Eastern friends than such action. It is a mistake to take some temporary advantage which the Pacific Coast may have enjoyed, and read it out as a discrimination against the States named. It would be far better to wholly unincumber their movements from such clauses which can only minister to strife and ill-feeling between the different sections. It is a matter in which the whole strength of the industry is needed.

In the Yosemite.

The flight of the seasons brings us again to the time for planning excursions to the Yosemite. It will probably be a year of unusual activity in the valley, for it will be only fair that our greatest gorge should share in the general boom. It may be commended as one corner of the State in which the real estate man has nothing to sell, but we do not know that that will commend it much, for our visitors seem rather to enjoy the real estate activity which now prevails.

We give on this page a view of four of the gems of the Yosemite, the engraving being reproduced from Major Truman's work, "From the Crescent City to the Golden Gate." The engraving is from recent photographs by Taber, and will, we believe, be regarded by our readers as one of the handsomest of the many views of the valley which have appeared in our columns. The falls shown have been frequently described, and it will suffice now merely to give the hight from which their water is poured into the valley: Bridal Veil, 900 feet; Vernal, 400 feet; Nevada, 600 feet. These are among the most beautiful falls of the valley, though the Yosemite surpasses them greatly in descent as it leaps 2526 feet from the crown of the ledge to the valley.



VIEWS OF THE YOSEMITE, FROM RECENT PHOTOGRAPHS BY TABER.

Gas Treatment for Scales.

We had a brief talk on Wednesday with F. W. Morse, of the State University, who has just returned from several weeks' experimenting to secure a vapor which will kill the cottony cushion scale without killing the tree which it infests. An application was made to Prof. Hilgard to detail an expert to conduct an investigation of this kind, all the expenses thereof to be borne by the applicants. Mr. Morse was selected. The investigation was under the patronage of A. B. and W. S. Chapman, L. H. Titus and J. C. Newton—all large orange-growers of San Gabriel, Los Angeles county. The experiments were chiefly carried on in Mr. Titus' orchard, and upon his inventive skill was placed the task of devising the hooding or ballooning of the tree, Mr. Morse confining his attention to the chemical branch of the work. He says that Mr. Titus invention for covering or inclosing the tree is very successful, and he will probably apply for patents upon it. As for the insecticide department of the work, Mr. Morse says they made about 50 experiments with different gases, or combinations of gases, a large number being necessary to determine what the tree would stand, as well as what the insects could survive. Among the gases tried were those of sulphydric acid, chlorine, sulphide of carbon, ammonia, carbonic oxide, carbolic acid and oxalic acid, volatilized by heat. Several of these would kill the insects if very concentrated, but failed when forced into the tent, thus becoming diluted with air. The only gas found effective was that of hydrocyanic acid (prussic acid). This, when pure, injured the foliage, blossoms and fruit, to some extent, when it was applied strong enough to kill the insects. In order to save the foliage, etc., Mr. Morse used hydrocyanic acid combined with carbonic acid, and this mixed gas killed the insects and did not injure the foliage.

In application the gases are generated outside the tent and forced under and through it with a pump. This secures permeation of the gas to every part of the tent which could not be secured otherwise. Pumping gives thorough distribution and circulation, and the gas is used over and over again by the pumping process.

The method of application is not fully perfected, but Mr. Chapman will proceed with the treatment and develop details. The gas does not kill the eggs, but does kill the living scales. Therefore it is expected that a second application will be needed to kill the later hatchings.

Mr. Morse is preparing a careful statement of his experiments and their results, which will soon be published. We give his experience with the combination of hydrocyanic and carbonic acid gases for the benefit of any who may be working upon the problem of gas treatment for scales.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions

Yolo County Notes.

EDITORS PRESS:—We are in the midst of a north wind which is anything but agreeable to the feelings and to the grain prospects, especially the late-sown. The number of days it has blown this spring is almost unprecedented, and it will curtail the general average materially. No perceptible effect is yet discernible on the fruit crop other than a pretty extensive thinning out of overloaded trees, which has been a benefit rather than otherwise. The wind has taken up about all the surface moisture, but early-sown grain still looks well, and cultivated fields are holding the moisture well; but how long we can stand it without feeling the effects on early-sown grain and early vegetables remains yet to be seen.

If Thorough Cultivation

Was ever needed, it is this spring. The ground should never be allowed to stand long enough to get hard on the surface, for if it does it is difficult to bring up the moisture afterward, and in some soils it cannot be done.

We have had two frosty nights lately which have injured vegetables and grapes considerably, especially potatoes and tomatoes. This has not happened in our locality (according to the best of my remembrance) for five years. I suppose that some of our "Boards of Trade," so called, might think that I had better suppress the last item, but I don't care to resort to the methods adopted by some to induce immigration to this coast.

Let it be known that there is frost in the Sacramento valley late in the spring *sometimes*, and in some localities, and enough to injure the first crop of grapes; but the second crop generally makes up the deficiency in quantity; and also that the north wind sometimes blows a week at a time, and sometimes thrashes out the grain after it is ripe in the field, as it did last year. Still, all things considered, our drawbacks will compare very favorably with other parts of this great country.

There are all sorts of questionable stories which Eastern people say are told them at the East. It appears to some that if immigration can only be assured, no matter what measures are employed, the ends justify the means. To such I would say: Be careful that that plan of procedure does not act as a boomerang, and reach farther than was intended. I do not think that anything substantial can be gained by such means. I could go into details if necessary. Let this suffice at present.

Morning-Glory Once More.

I wish to say that the means for its eradication employed here (as reported by me this spring) have proven impractical, for this spring it has made its appearance again. Whether it lay dormant last season or whether the gardeners watched it very carefully and kept it cut off, I cannot say, but there are some stragglers over the patch now.

I wish to say, in answer to my critic, that straw can be had for the hauling here, and the same is true anywhere I have seen the plant grow in the Sacramento valley. If the straw cost anything it would not be a desirable remedy. I have a small patch in my orchard, and am working on it with a weed-cutter, made on the plan of the Vacaville correspondent of two weeks ago, and I intend to go over the patch as often as once a week this summer. This seems to be the most effective remedy I know of at present. I wish to save my trees.

Summer Pruning.

I wish to say a few things in regard to tree training to those similarly situated as myself—that is, to exchange ideas on the subject. If there was more of it in the PRESS it would please me. In our locality all kinds of fruit trees are very prolific growers; it is no uncommon thing for a two or three-year-old peach or apricot to put on four feet of growth on its top in a season, and often they reach six feet, and on such trees while such growing is going on (which lasts sometimes and on some varieties to the fifth or sixth year) we scarcely get any fruit; and some varieties, under such conditions, never do bear, but grow and grow, and finally frost-kill in the winter, especially the peach. Now, every orchardist has a theory as to the cause, but few have a remedy, and, as one of many, I will give your readers the benefit of my ideas, if there is any benefit to be derived. It is of the peach and apricot I wish to speak particularly. Other varieties I think the same course can be pursued with, only not so extensively in the trimming. I wish to speak first about what I think are the causes of such heavy growth. First, the soil is very productive and will naturally grow any thing very prolifically, but heavy winter pruning and irrigating, whether winter or summer, will produce heavy growth without doubt. Now as to the remedy, I think that summer sprouting, beginning as soon as the sprouts are six inches long, and following it up all summer, leaving only such wood as you want to grow till September, then top them lightly and do no more with them till the next spring, when sprouting time comes again. In this way the trimming is done a little at a time and the tree does not mind it, while the winter trimming is too much of a change, and the more I see of the peach the more I am convinced that winter pruning will shorten its life five or ten years; while gradual pruning I think will lengthen its natural life if it is done judiciously and in the proper time. Failure of a crop is often the effect of climatic changes (during winter) beyond our control, and it frequently happens that an unusually dry year preceding will fail to ripen the fruit buds, and often indiscriminate slaughter of tops in winter will cause fruit to drop after it is the size of a marble, owing to the sap going to wood (to build up what it has lost) instead of fruit. More anon. J. R. SPRINGER.

Woodland, Cal.

Beardless Barley.

EDITORS PRESS:—While on a visit to a friend here I have discovered an agricultural product wholly new to me, and which, I dare say, may be so to many of your readers. It is a species of beardless barley, which, in luxuriant growth of the stalk and excellence of the matured grain, is not second to any I have ever seen. The heads are full and long, much resembling wheat while growing, and the kernels plump and full.

The superiority of this variety for hay, being free from the ugly beards on the common variety, is too apparent to need comment, and I predict that in a few years this beardless barley will altogether supplant the old varieties.

A limited supply of the seed can be obtained, after harvest, of Mr. J. M. Howell, Henleyville, Tehama county, who is growing it. I have no interest in it, whatever, beyond a little I have engaged for my own use, but felt so confident your readers would like to hear of it that I ventured upon this article. Before closing, I will say that this new beardless variety is *not* the same that was introduced under the name of "bald barley" or "goose wheat" a few years ago, which did not prove of much account. I would advise any who would like to try a sample of this grain to apply early to Mr. Howell, as his supply is limited. Still, as he is anxious to introduce it throughout the State, his price will be moderate.

A. M. GOODNOUGH.

Henleyville, Tehama Co.

[The grain, judging from the heads sent us, is the beardless or bald barley which is grown in a good many places and is generally thought well of for hay. Of course, it is not "wild goose wheat" or "giant rye," and any one who calls that "bald barley" errs seriously. The true bald or Nepaul barley, which is the kind Mr. Howell has, was sent out several years ago by the State University and is not so rare as our correspondent imagines. It is interesting, however, to find that the plant is well thought of for hay so far north as it is nearer the center of the State. It should receive further trial.—EDS. PRESS.]

Three Crops in One Year.

EDITORS PRESS:—That a succession of crops can be raised in many parts of the State is doubtless well known to most of your readers; but that three crops of the same kind can be grown may not be so well known. I have succeeded in raising three crops of potatoes and peas in the San Miguel canyon in one year.

On the 13th day of March, 1886, I planted a few Early Rose potatoes. June 15th a few were dug and planted, a few green weeds being placed in each hill. October 3d some of these potatoes were dug and were exhibited at the district fair. After my return from the fair I planted some of these potatoes on the 12th of October, and they grew to be good eatable potatoes before the expiration of the year, and I have now a fourth crop growing from the third crop of seed. The same has been accomplished with peas.

If every one having a small patch of ground to cultivate would try some such experiments, important results might be obtained.

Santa Rita, Cal. J. S. TIBBITS.

Sonoma County Notes.

EDITORS PRESS:—Your clodhopper correspondent, in Sonoma county, has been so busy the past fortnight that he could not find time for even a few "notes." The work of vineyardists has been very exacting the past few weeks; but it is now safe to say the rush of work in that direction is about over. Not in many years has the soil worked better than it did this spring. The vines are growing splendidly, and the promise of a full crop is very encouraging.

Pasture lands are yet furnishing abundant food for the cattle and sheep, and the consequence is plenty of fresh milk, butter, cheese, beef and mutton. Fat stock of any kind finds a ready sale at remunerative prices.

Grain crops in the county promise a good yield. Barley is mostly headed out. Haying has only been begun in a few fields where the volunteer crop is unusually advanced. There will be an average crop of hay—not so large as the crop of 1886, however.

Corn planting is well along. Potato planting comes next in order. The acreage will be about as usual. There are a great many acres of land in this county that are annually planted to pumpkins, beets and carrots. It has been demonstrated that thee crops pay well. It is surprising how many tons of rich and relishable food can be grown from one acre of good soil, when properly planted and cultivated to the above-named food crops.

Fruits of all kinds are promising. Cherries are in the market that were grown in Sonoma county. Gooseberries, strawberries, etc., are to be had in great plenty. The indications now are that the crop of tree-fruits, including pears, apples, peaches, plums and prunes, will be enormous. The several canneries are already putting themselves in shape for the handling of an immense quantity of fruit.

The proposed railroad from Santa Rosa to Benicia is not yet built, but the engineers and surveyors are earnestly at work, and the right of way is being secured as rapidly as possible. Property in and about Santa Rosa has already felt the boom, and is changing hands freely at considerably advanced prices.

Sonoma county has a very thrifty horticultural society that meets once a month. If the meetings were held oftener more work could be done, and the benefits to fruit-growers would be more thoroughly diffused.

The late showers have done much good.

Roads are in splendid order.

No damage from the north wind. Lumber-mills are all in active operation.

Sheep-shearing is in progress. The yield of wool is satisfactory and the price pays.

College and public-school entertainments are of frequent occurrence.

Little sickness in town. None in the country.

Picnics, excursions, camping parties and out-of-door life generally are the order of the day.

Santa Rosa, May 9, 1887. OCCASIONAL.

Why Do the Walnuts Drop?

EDITORS PRESS:—I have several fine walnut trees 30 years of age, thrifty in growth and apparently healthy; the fruit on these forms and remains until about the size of a marble, then for some unaccountable reason to us it falls off, with perhaps the exception of a dozen nuts, which few remain and grow to maturity. Will some of your readers, through your valuable paper, kindly explain the cause and give me a remedy for same. SUBSCRIBER.

Coloma, El Dorado Co.

Celery Culture.

EDITORS PRESS:—I saw mention lately of the new method of celery culture. Are any of your readers conversant therewith?

I tried last season blanching my celery by winding a sack around it, after tying it up, and I noticed in some gardens near San Francisco, others had adopted the same plan. Can it be that this is the whole of the new system? Who will tell us? EDW. BERWICK.

Carmel Valley.

THE STOCK YARD.

A Kern-County Breeding Farm.

EDITORS PRESS:—At the stock ranch of H. H. Fish & Co., 1½ miles southwest of Bakersfield, we had a recent interview with George Daggett, proprietor, and saw some very fine stock.

At the stables we were shown the fine thoroughbred Norman stallion, St. Leon (imported from France in 1885 by Theodore Skillman, of Petaluma), six years old; weight, 1700 pounds; color, black, with beautiful, light-colored flowing mane; highly prized by Mr. D. as one of the very fine horses of the country.

Mr. D. has recently had the misfortune to lose a model Norman stallion, raised by Theodore Skillman, named Model in catalogue, better known in the neighborhood as "Frank." He took sick suddenly and died with what seemed to be colic. He was a most valuable horse.

Mr. D. strongly believes in a cross between the Norman horse and ordinary mare. He states it as a remarkable fact that colts by a Norman horse are not as large in proportion as those by a Clydesdale. This circumstance favors the mother at the season of foaling, while at maturity the Clydesdale has but little advantage over the Norman in the matter of size. He thinks that as a draft horse, the Norman need fear no competitor. The Norman's good feet are also remarkable, and as much cannot be said of the Clydesdale, the feet of the latter being too flat and with too much resting on the ground. The Norman colts are not to be expected to make a show at foaling time, as they are small, but they rapidly develop in form, size, etc., to maturity.

Mr. D. pronounces Kern as one of the very best counties in the State for the rearing of the horse, because of its rich pasture lands and its fine climate suitable for this animal. The horse raised here has an attractive form and comes early to maturity.

Hogs.

Mr. D. has been experimenting in the propagation of varieties of the hog by both breeding pure and by crossing, using for the purpose thoroughbred Poland China, Berkshire and Essex. After extended trials he favors the cross between the Essex and Berkshire. The Essex takes on flesh readily and is easily domesticated, while the Berkshire adds length of body, activity and a stronger disposition to rustle for food. This cross affords an excellent combination of good qualities. Mr. D. has also a herd of cattle which we did not see.

Alfalfa.

Mr. D. informs us of his method of setting a field with alfalfa. After preparing the ground he sows it to wheat, barley and oats in November. He also sows on the same ground unmixed alfalfa seed. In the latter part of the winter and during the spring months, and on to the time of cutting, he pastures to horses and hogs. He showed us a tract that was so seeded last November, and is now thus running to pasture, from which he expects, this season, 2½ tons of grain hay per acre. It is irrigated and looks very well indeed.

Kern Co. McD.

A Great Cattle Combination.

It seems that the greatest thing in the way of aggregated industrial capital is to be in the agricultural line and that it is to be called the American Cattle Trust, with its interests centered in New York, Chicago and the great cattle ranches of the West. Not less than $25,000,000 has been invested in the concern. The object of this great "trust" is to largely increase, develop and encourage the raising and handling of cattle, the slaughtering of them by first hands and the placing of their products in the different markets of the world. The new venture is to be inaugurated upon an immense scale.

The projectors say that it is expected that it will secure the mastery over the great cattle interests of the country, which, however, they claim will be a benefit to all raisers of cattle. It is not meant that all the killing and packing shall be done near the range. The trust has control of a large number of establishments which it will run to the best advantage. The combination includes ranchmen from Texas to the British line, who believe they will be able to handle their cattle to much better advantage than has been the case of late, and that they will not be forced to put them on the market, but be enabled to do so only when the best profits are to be had

This may be all true for all we know, but we do not like these great aggregations of capital. We would much rather see 250 concerns with $100,000 each than one with $25,000,000. Competition is a better agency than combination—better for those concerned and for the whole people. It seems, however, that the organization may be in the interest of growers, and is formed to fight another powerful organization which has been very oppressive and dictatorial. At all events, Col. J. N. Hardin, a large cattle-grower from Nevada, made the following statement to an *Examiner* reporter on Tuesday:

Heretofore the butchers of Chicago have been virtually dictating every morning what the price of beef shall be all over the United States. I think it is about time it should stop. The men who produce the beef will now have something to say about it. It won't hurt the small growers at all, but raisers great and small will all be identified together.

Now, it might be said, and sometimes is, that Miller & Lux control the cattle market of California. Miller & Lux do nothing of the kind. Nobody controls it on the Pacific Coast, and the reason the market is a little high now is not because there is not lots of beef, but because the cattle of California, generally speaking, are in poor flesh; especially is this true in the south, on account of short grass.

The cattle of Eastern Oregon and Nevada are not fit for the market till the 1st of August, and California stock, as I have said, is not in a condition to sell. If my cattle were fat, I could put 5000 on the market at any moment. The present shortness in the supply will probably make better prices for Oregon and Nevada cattle that come in later.

No, I think we need not necessarily conclude that people will have to pay more for their beef on account of this combination. It is formed first to protect the big and little growers alike from the dictations of the Chicago dealers.

The combination is, according to latest advices, fully made and strongly made, and there is nothing to do but wait and see how it works.

The Cattle Ranges.

The Boston *Commercial Bulletin* last week published special reports from 13 States and Territories, on the cattle interest. It seems that previous accounts of winter losses have been considerably exaggerated. The only Territory in which cattlemen lost heavily was Montana, where the mortality proves to have been from 15 to 25 per cent. The losses in Colorado, western and northern Kansas were very light the past winter, running under 5 per cent of the average. Parts of Idaho and Wyoming suffered quite severely, particularly in the northwestern parts, but the average losses in the Territories were not excessive. Utah, New Mexico and Arizona were particularly fortunate. New Mexico correspondents write that the loss does not exceed 3 per cent in either of the Territories named. Texas reports some suffering because of drought, but the winter was much more favorable to stockmen than that of 1885-6. On the whole the conclusion is

that the past winter was a favorable one to the cattle-raising interests of the West, and that the hide and leather market will not feel the effect, noticeably, of what fallen hides will come upon the market.

From every section come reports of the encroachments of emigrants upon the grazing territory, and particularly upon Nebraska, Kansas and Colorado, where the cattlemen are being pushed steadily westward. It is the opinion of some correspondents that the cattle-raising industry has reached its hight. In several States it is becoming necessary to raise alfalfa and grass for feed. Without excepting a single State or Territory, the season has opened well, with abundance of rain and fine prospects for grass. Cattle-raisers in Montana feel much encouraged over the outlook and feel that this favorable spring will go far toward recovering their losses and prevent further mortality among weak cattle.

THE ORNITHOLOGIST.

Dr. Gally on Birds, Bugs and Real Estate Agents.

EDITORS PRESS:—Your San Luis Obispo county correspondent, in PRESS of May 7, 1887, says: "It does not take a smart man to answer his (my) question in regard to the birds." I do not see that any smart man has yet tried to answer me, although I freely admit that "F. U. N.," of Arroyo Grande, is a very clever fellow; but if he (or she) thinks or supposes that I do not know a mocking-bird when I see one with the feathers on, he, or she, is mistaken. I was born and had my "broughten up" near that isothermal line in North America immediately south of which the *Mimus polyglottus* is autochthonous. [NOTE.—It takes a fond parent's money to enable a dutiful son to sling such big words.] This *M. polyglottus* is the true mocker and seldom emigrates to the north of Mason and Dixon's politico-topographical line, although the isothermal lines, it may be here observed, are crooked by being bent northerly or southerly by elevations of the earth's surface or by currents of air. The opossum, the mocking-bird and the pawpaw, as a general rule, can exist in the same environment, provided it is a place where the pawpaw tree grows 10 to 20 feet tall. The mocker is also associated with that P. S. of A. the gum tree; not the eucalyptus, but the gnarly, native, unsplitable, real old genuine dead at the top, autumnal red-leaved gum of which some unrivaled Tennyson, bulging with the lyric ardor of a burning patriotism, has written,

"Oh! come to de ole gum tree
Whar de coons an' de possums prance;
O come ye darkies wid me-e-e
An' jine in de jovial dance."

I have petted the *M. polyglottus* and bred it in cages, in Virginia, long befo' de wa', sah. I have taught one talented member of the family to whistle

"Hey Jim along, Jim along Josey,
Hey Jim along, Jim along Joe;"

Also other sinful ditty airs, of a worldly character, including the first half of "Yankee Doodle;" but when I sought on Sundays to teach him the melodious solemnities of

"Come, ye sinners, poor and needy,
Weak and wounded, sick and sore,"

He would turn his head to one side and go off clucking to the little chickens, as a hen does to her brood after a shower of summer rain. I can't say that I ever clearly understood what *M. polyglottus*, Esqr., meant by that unless he intended it sarcastically as who would say: Oh, cheese it, and come in out of the wet.

The mocking-bird, of which I am now writing, is of an ashen-brown color above and white below, has a roach or rounded back, the upper beak curved, and, beside being a musician and comedian, is a very warlike and fightaceous character; but the miserable bird I wrote about —April 16th—is, as I then wrote, a greenish brown; his bill is long and straight, or nearly straight; he is one-quarter to one-half larger than a mocker; he is more like a catbird of Ohio and a good deal meaner.

But there is another mocker which I have not met east of the Rocky mountains, though it is numerous in Nevada and in Utah. It is a smaller mocker, not much larger than the red-throated linnet. It is a good singer and mimic of other birds' notes, and it is a pretty good bird, any way, for it belongs to the family of *Icteria viridis*, or fly-catchers. If this latter is the bird which "F. U. N." uses as part of the "judicious advertising" to boom the lands of Obispo, he has made a mistake, for the *Icteria viridis* is a bird that loves dry, very dry, land and rocks; yet it is a lover of clean water, but a very little water trickling from beneath the shady side of a desert cliff of rocks is sufficient. I think this must be the bird of "F. U. N.;" it is not found in this (Pajaro) valley—the land here is too rich and the air too humid for that bird. In fact this valley has no need to advertise for either birds or booms—it is, in Spanish lingo, the Bird valley, and its citizens have been refusing $300 an acre for plain lands for the last ten years. We lease our lands here at from $20 to $100 per acre per year, and do not shout about it, either. Valley lands *can* be bought here, but not cheap.

A Pajaro farmer on his 30 or 40 acres is like the Arab with his horse—you must get the consent of the weeping family before he parts with it. That ought to show that it is good land to own, because where anything merchantable is not pushed upon the market, it is a sign that it will do to keep. Senator George Hearst, when he and myself were in Nevada many years ago, and he was looking for a mine to purchase, said that he did not want to buy in a camp where every one was on the sell. I agree with George. If your correspondent wants to know how birds assist to fight bugs, let him shoot specimens of different birds, to be found in orchards and gardens, and hold a post-mortem examination on each—cut 'em open—and send you a list of the bugs he finds in the crops or craws. That ought to settle it.

I have found few bug-eating birds in California, and, curious to say, nearly all of these are death on our friend, the *coccinella*, or ladybug. The swallow families are all insect-eaters, the blackbirds, wrens, fly-catchers, woodpeckers, sap-suckers (though they never suck sap), crows, seagulls, road-runners and toads. The latter is a very useful bird of sedentary and studious habits, and the gopher-owl is his enemy. The gopher-owls and the cranes are useful birds to hunt gophers, but whenever the average small boy on a farm sees an owl or a crane, he runs home for the shotgun, for which he should be spanked. A gopher-owl is not a hoot-owl—more like what a Southern "cullud pusson" calls a squeech-owl, only larger, but not so large as a hooter.

When your correspondent quotes to me the testimony of "every real-estate agent," I think he is still harping upon mocking-birds, and I have nothing more to say. I may, however, add that I lately slept in the same room, on a Sunday night, with a Southern California real-estate agent. He had been to church and heard a sermon from a text about the New Jerusalem, where the streets are paved with gold and the walls are of sapphire and precious stones. In his sleep he dreamed, and in his dream he prayed: "O good Lord! take me up into heaven—quick—I want to strike that New Jerusalem on the boom! Ah Lord, streets paved with gold—hallelujah! O my Master, take me home to glory—walls of sapphire! Amen. God grant it! It's the biggest thing in the universe—Riverside oranges and a whoop in h——l to it! Now, O Lord, let thy servant depart in peace."

He awoke in a dripping perspiration, with his pulse jumping toward 120, and remarked that he had a vision of his good dead grandmother, warning him to join church and "flee from the error of his ways," and he was going to do it. But you can see that the real-estate agent was still in him. He did not know, though, that he had given it away in his sleep.

J. W. GALLY.

Pajaro Valley, Cal., May 7th.

THE VETERINARIAN.

Milk Fever in Cows.

EDITORS PRESS:—When we take into consideration the fact that the domestic cow is in an extremely artificial condition, in reality she is little more than a mere milking machine—I say, when we bear this in mind, it is not surprising that she is very subject to this disease. Undoubtedly in those districts where they are fed high, *i. e.*, upon material making much blood, they are more prone to milk fever. And I have repeatedly noticed that those cows that have been kept upon low diet are not at all, or at any rate very little, liable to this affection. It is hardly necessary to say that it occurs generally on the third day after calving. It is thought that when the young animal is born all that blood which went to supply it with nourishment being thrown back upon the system of the cow, if she is in a plethoric condition, produces this ailment.

Preventive Measures.

Let the cows be fed upon loose, cooling food about three weeks prior to calving—roots, bran mashes, little or no grain, and good hay. By what has been said, it is evident that feed and treatment must be such as will not encourage plethora. Some animals, like man, are liable to become fat and make a good deal of blood upon scanty food; in such instances it is advisable to remove blood from the system a day or two previous to calving. Some people may condemn me for advising blood-letting. But let me remind them that veterinary practice is very different from the treatment of human beings. Facts are very stubborn things, and I can prove that bleeding has saved the lives of a great many animals when adopted at the right time. Theory is all very well, but theory without practice is worthless. Our best physiologists show that milk fever is due to plethora, and let me ask any one who knows anything of medicine, if aconite or any drug will produce as marked an effect, and in so short a time, as blood-letting. Farmers have proved the efficacy of this treatment. It is good treatment to give a purgative drench three days prior to calving if the bowels are confined.

Treatment.—This is useless, unless at the very outset; for, at any rate, only a small percentage recover unless proper remedial measures have been taken early in the disease. I have treated a very great number of cases of milk fever in Europe, and seldom have I known an animal to recover when all nerve power of the muscles of the neck has been lost. If the head of the poor animal is lifted by the onlooker, and it falls helplessly, there is very small hope of recovery. Another bad symptom is absolute blindness, and taking no notice of any surrounding matter. It is called by some farmers "dropping after calving," and this is somewhat suggestive, as the animal really does drop, and is unable to rise. The treatment that I have found most successful is strong purgatives, followed by the administration of strychnine in proper doses; and undoubtedly this medicine, when used rightly, is a most useful nerve stimulant in this disease. It is necessary to remember that the bladder partakes of the general paralysis, and it is important it should be emptied by means of a catheter; and I may say that the operation of passing the catheter in the cow is not by any means a difficult matter, and in this and other diseases it is a source of much relief and benefit to the suffering animal.

She should be kept as quiet as possible. Where the animal has been valuable, pedigree stock, and the owner has felt inclined to go to the trouble, I have had ice applied to the head and have found much benefit to come from its use. Cows that have once been the subject of milk fever are always liable to a subsequent attack at the next time of calving.

Post-Mortem Appearances.—The brain and spinal cord are found to be the seat of much inflammation, and this may be said to be the only noticeable after-death appearance. Under this head I may state that there is nothing in the nature of this disease to render the meat of the animal unfit for human consumption, provided the cow is killed at the outset. And in some cases this is the most advisable plan, but after medicine has been given, it is very evident that the meat will be tainted in smell and taste. Although medical treatment is in some cases successful, it is to the prevention of milk fever that most attention should be directed.

ROBERT J. DAWSON,
Veterinary Surgeon.

225 Geary St., S. F.

THE DAIRY.

A Kern-County Dairy.

EDITORS PRESS:—We recently paid a visit to the Anderson dairy ranch, the property of Carr & Haggin, three miles southwest of Bakersfield, and had the pleasure of an interview with L. F. Johndrow, who has this ranch in charge. Although yet a young man of 31 years, Mr. J. has been engaged in the dairying business for about 20 years.

On this place there are 325 cows, principally of the Durham stock, graded. In order to keep the ranch stocked with the best of milkers, Mr. J. handles a great many cows, and if, during the first year of trial, one does not prove good, she is turned off. He is, by this means, enabled to keep a supply of the best for dairying purposes. He is now milking 145 cows, and from them realizes over 400 gallons milk per day.

While the Durham is a favorite cow with Mr. J., his opinion is more favorable to the Holstein for milk. He has eight bulls on the ranch, five of which are Durham and three Holstein. Of these Holsteins, one is four years old and the other two, three each. He runs three bulls with the milch cows on a pasture to themselves, alternating the bulls so as to have only one a day, the two not in use for the day being kept in a small lot by themselves. The dry cows are run in separate lots according to condition, etc.

The calves are run in lots assorted according to age, size, etc. The feeding shed has accommodations for 120 calves, each calf being provided with a stanchion and tin feeding pan, and so arranged that no calf can get at another's food. In feeding, skim-milk fresh from the De Lavel separator is used twice a day. The pans are thoroughly washed out after feeding, morning and evening. Thus, in two lots, milk is fed to over 200 calves. There are 100 others a little larger and now weaned. The calves are of Durham graded, run on good pasture, and make a handsome display.

Mr. Johndrow has well-established habits. He finishes milking, has the cows off to pasture, and calves fed by 7 o'clock A. M. (before breakfast), and finishes the milking and feeding at 15 minutes after 6 P. M., and very regular as to time in everything done.

McD.

Kern Co.

Cow Killed by Oleander.

Some time ago, H. S. Sargent, of this city, lost a valuable cow under the following circumstances: The animal got into the front yard, where the blue grass was several inches high and where an oleander was growing. She grazed in the yard for an hour or two before her presence was discovered. On the morning following the cow was sick. At noon she was much worse and a veterinary surgeon was called. He said the case was peculiar. The animal had no fever, its pulse was very high and undigested food came from its stomach through the nostrils. At sunset of the same day the cow died.

Mr. Sargent addressed a communication to the *Jersey Bulletin* detailing the facts above set forth, describing the animal's symptoms, and asking for information regarding the cause of the cow's death.

The *Bulletin* published the following diagnosis of the case, which we reproduce for the benefit of people who are not aware of the fact that the oleander is poisonous: "The hydrocyanic acid (prussic acid) in the oleander was the cause of the death of the cow. It is as bad as the wild orange, when eaten by stock, but is not partaken of as often as the orange. Every symptom warrants the above conclusion."—*Stockton Independent.*

METEOROLOGICAL.

The Weekly Weather Bulletins.

EDITORS PRESS:—The Chief Signal Officer, being convinced that the data collected in this office may be greatly utilized by those interested in the production of the staple crops, has decided to issue, beginning with Saturday, May 7, 1887, a special bulletin, with the view of promptly placing before the public each Monday morning reliable information relative to the climatic conditions which have existed the previous week in the agricultural districts of the country.

Sufficient information has been collected from signal-service stations for the determination of quite accurate normal values of temperature and rainfall, and as the growth of all staple crops depends so largely upon the amount of heat and moisture and their relations to one another, it is believed that these bulletins, containing the deficiencies or excesses relative to temperatures and rainfall during the growing season, will serve as a reliable basis for determining the conditions favorable or unfavorable for the growing crop.

When this information is compared with corresponding data of previous years, it will serve those specially interested in calculating the probabilities of expectations of the coming season and the influence of the same on the growing crops. These bulletins will contain departures from normal temperatures and rainfall in the agricultural districts of the country for the current week (to which special attention is invited), and also the departures from the normal temperature and rainfall from January 1st to the date of the bulletin.

The reports which are collected daily by telegraph will be charted and summarized at the close of each week and the results given to the press associations, as items of news, in time for publication in the Monday morning papers. These bulletins will designate the agricultural regions over which the meteorological conditions are favorable to the crop productions; will point out regions where the conditions observed during the current week have alleviated spells of drought and excessive heat, or ameliorated conditions of excessive moisture or prolonged cold; and the limits of late or damaging frosts. The modifying effects of such meteorological conditions upon the season can be reasonably conjectured by parties interested, especially as the bulletin will state whether the season is tending to increase or decrease the excesses or deficiencies of temperature and rainfall.

While it is recognized that temperature and rainfall are not the only meteorological elements which influence crop production, they are, for most crops, by far the most important, and serve to indicate the general character of the season, whether favorable or unfavorable. It is proposed to add to these elements, as soon as practicable, records of average cloudiness for each week of the growing season, from which the duration of sunshine may be closely approximated. It appears important that statistics of this character should be published for the benefit of all interested in the staple crops of the country, and while the bulletin must be general in its nature, owing to the limited number of stations from which reports are received, it will increase in value each season with increase of stations, and will ultimately place in the hands of the general public, as well as the farmers and dealers, facts which will serve to indicate several weeks in advance the probable yield, and, therefore, the probable value of the various crops.

Signal-service observers located at the principal commercial centers will be supplied with this bulletin weekly, and, in addition, with carefully prepared tables containing the detailed data at various stations, in order to furnish them to such commercial organizations as may desire to receive them. This new and experimental feature of signal-service work is at present attended by no other expense than that of a small clerical force employed in tabulating reports which are already collected for the general "indications" work of the service. If, after trial, this bulletin is found to meet the wants of those interested in crop productions, more detailed reports will be furnished covering special localities and applicable to special crops.

The Chief Signal Officer, in expressing his desire to extend the usefulness of this service, will be pleased to receive suggestions from those interested in the bulletin, with a view to improving the same, either as to the character of the information furnished or as to the form in which the reports are presented.

A. W. GREELY, Chief Signal Officer.

Signal Service, War Dept., Washington, D. C.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

The Grange in Maine.

Those who enjoyed the privilege of meeting our genial Bro. Field, of Maine, during his visit in California last winter, may be interested in the subjoined report of the condition of the Order in the Pine-tree State—a contribution by J. W. Lang, of Bowdoinham, to one of our Eastern exchanges:

In Maine we have above 200 live subordinate Granges, 16 county Granges (one to each county), and over 15,000 members in good standing. Worthy State Lecturer Thing is at work in Somerset county, flanked and supported by a good team of working Patrons. We expect results from the effort. In York county Deputies Geo. H. Boothby, Geo. M. Douglass and S. M. Blake have put in some telling work. A new Grange has been organized in Limerick in that county, and soon others will be organized or reorganized there.

In Kennebec county one new Grange has been organized, Clinton, 287, with 73 charter members, by State Deputy J. W. Lang and County Deputy S. C. Watson. More work is planned and being carried out in Kennebec. In the other counties not much is being done.

In Sagadahoc county a series of meetings have been held by Bros. Lang, Sprague, Brown, Edgecomb, Dinston, White and others for the good of the Order. Three new Granges have been organized and reorganized since the new year; one at North Woolwich, with 24 charter members, and which now has about 40 members; one at Ashdale, in Phippsburg, with 21 names, and one at Richmond Corner, with 41 names. This last was a revival and reorganization of a long dormant Grange. Other Granges are in embroyo, and the old Granges of the county have been revived and strengthened. Sagahadoc is the smallest county in the State; through it flows the Kennebec river, and it is indented by inlets from the sea. Three of its 11 towns are islands, but by persistent effort three Granges have been added to the five old ones, making eight at present.

There are 83 dormant Granges in the State, all, or nearly all, of which might be reorganized by proper effort of the Worthy State Master and his deputies, which we hope may be put forth. In Androscoggin county there are 3; in Aroostook county, 7; in Cumberland, 14, and 12 live Granges; in Franklin, 5; in Hancock, 3; in Kennebec, 3; in Lincoln, 4; in Oxford, 13; in Penobscot, 9; in Pascatquis, 3; in Sagadahoc, 2; in Somerset, 6; in Waldo, 6; in Washington, 1; in York, 4; in Knox none, but it has 9 live Granges.

We have one wholesale store at Portland, one life insurance society and two fire insurance companies. The Grange in Maine is noted for its three grand divisions, which are regarded in importance thus: Its social, its educational, and its financial aims or advantages. Maine sends greeting to its brethren in all other States through the medium of your columns, and we stand shoulder to shoulder with our brothers and sisters everywhere for every good word and work.

Contra Costa Grangers' Association.

The Contra Costa County Grangers' Warehouse and Business Association held its annual meeting in Grange hall, Martinez, May 4th. There were present J. Strentzel, President; G. P. Loucks, Secretary; J. Larkey, J. W. Jones, A. Boss, and J. M. Stone, Directors; and representatives of a majority of the stock, to wit, 1116 shares.

The President's report was duly made and unanimously accepted.

On motion of D. N. Sherburne, seconded by Wm. Caven, the Secretary was instructed to and did cast the vote of the stock represented for the old Board of Directors. Thereupon the President declared J. Strentzel, F. M. Warmcastle, H. M. Hollenbeck, G. P. Loucks, J. Larkey, J. W. Jones, J. M. Stone, R. O. Baldwin, and A. Boss, duly chosen Directors for the ensuing year.

After the meeting adjourned, the Board organized by electing officers as follows: President, J. Strentzel; Vice-President, F. M. Warmcastle; Treasurer, John Larkey; Secretary, Geo. P. Loucks; Auditing Committee, J. W. Jones, A. Boss, J. M. Stone.

Santa Rosa Grange.

EDITORS PRESS:—The annual celebration of Santa Rosa Grange will be held in Hahman's hall, Saturday, May 28th, at 10 A. M. The following program will be rendered: Music, by the Grange; address of welcome, S. T. Coulter; select reading, Miss Emma Mills; quartette, members of Sebastopol Grange; recitation, Miss Minnie Coulter; select reading, Bro. Cnopius; song, by Sebastopol Grange; select reading, Wm. Coulter, S. P. Whitaker; closing remarks, E. W. Davis.

JONATHAN ROBERTS, Chairman of Com.

Santa Rosa, May 15, 1887.

Grange Picnics.

At Beach's Grove.

In reference to the Grangers' picnic, held on Thursday, the 5th of May, at Beach's Grove, our Sacramento correspondent, "G. R.," writes that over 2000 were on the ground and the grove was lined with vehicles. Games of various kinds followed. The *Bee* adds that the weather was perfect, the management all that could be desired, and it is doubtful if a picnic were ever more thoroughly enjoyed.

At Clements.

The Grange reunion at Clements, Friday, May 6th, was celebrated in a lovely oak park on the bank of the Mokelumne river. Visitors flocked in from the surrounding country, Calaveras and Amador being well represented. Prominent Grangers from different parts of the State were present, and Bros. Johnston, Flint and Overhiser addressed the meeting. One of the features of the occasion was an old-fashioned barbecue on a grand scale, and there was a ball in the evening to wind up the festivities.

At Sites.

The Grange picnic at Sites, May 7th, proved highly successful. Large crowds went from Colusa and Maxwell, and everybody had a good time dancing, playing games and roaming over the hills.

At Hock Farm.

Wednesday morning's telegrams include a pleasing assurance that the 14th annual picnic of Sutter and Yuba County Granges, held on Tuesday, at General Sutter's old home, was a grand success. Many came also from Butte, Colusa and Sacramento counties, and the number in attendance could hardly have fallen short of 3000.

The grove at Hock Farm was in excellent order, and the weather perfect. There were two stands, one for dancing, the other for literary exercises. Col. John P. Irish delivered an interesting and eloquent address. He said Sutter county astonished him by its wonderful richness and fertility, and it had no superior in the State for productiveness. He advocated greater diversity of crops, culture of fruit trees and vines and a division of the large farms into small tracts, to be owned by actual cultivators, and expressed himself as greatly pleased with the homelike aspect of the country houses and their surroundings.

Governor Bartlett had been invited and had promised to be present, but owing to ill-health and his absence at Highland springs, had to send word of his inability. Beside all the carriages going to the picnic, the steamer D. E. Knight and barge were chartered to run from Marysville to the picnic grounds, carrying many hundreds of people. Two bands were in attendance, and the day passed off delightfully.

Children's Day in the Grange.

We find in the *American Grange Bulletin* this proclamation by the W. M. of the Indiana State Grange:

For the welfare of the Order of Patrons of Husbandry in Indiana, I, Milton Trusler, Master of State Grange, do appoint Saturday, the 4th day of June next, as "Children's Day," to be observed by the Granges throughout the State, and respectfully recommend that on that day the Lecturer of each Grange prepare a suitable program of exercises, of literary and musical merit, that will tend to interest and benefit the children of our homes. Meetings to be held at such hour and place as Granges may determine, meeting in open session in grove, church or hall, as may seem best for contributing to the interest of the children in the work of the Grange and in developing a love of rural life and agricultural pursuits.

This example of wise and beautiful observance is well worth following in all parts of the Union, California included.

"Only One Flag."

General Master Workman Powderly has addressed an official circular of the K. of L. throughout the United States, recommending that the members of the Order hold demonstrations and celebrations next Fourth of July in honor of the birth of the people's government. He says: "In the line of march and on the stands in public places use only one flag—the stars and stripes. Show to the world that no matter where a Knight of Labor citizen was born he respects and honors the United States flag. Show to the world that we are determined to find out what is wrong in our system of government and that we are equally as determined to right such wrongs as may exist by peaceful and legitimate means. I desire, also, that the question of the restoration of the people's lands to the care of the people be discussed."

TWO ROCK GRANGE observed the first Saturday of this month by decorating the graves of departed brothers and sisters. There were prayers, singing, recitation, and an appropriate and interesting address by Rev. Mr. Hayes, of Tomales.

SOUTH SUTTER GRANGE conferred the third and fourth degrees on two couples April 30th and enjoyed a Harvest Feast and speeches from Bros. Flint, Frisbie and others.

Thugs of the Saloon.

Under the title of "Another Act in the Great Drama," the *Farmers' Friend* says:

"At Haverhill, a small town in the eastern part of Scioto county, on the Ohio river, Dr. W. T. Northup, a prominent physician and vice-president of the Scioto County Medical Society, was brutally murdered yesterday afternoon by Thos. McCoy, a saloon-keeper, and his brother Alfred, the postmaster of Haverhill, aided by Pierson and James McCoy, sons of Alfred, aged 20 and 15 years respectively."

This brief dispatch, wired over the country on the night of April 28th, has aroused a feeling that the enemies of prohibition will find it difficult to control or pacify. The fact is, Dr. Northup, like Rev. Haddock, of Iowa, is a martyr to his convictions. Believing that the sale of liquor is injurious to the best interests of society, he labored to secure its suppression, or at least keep the traffic under proper restrictions. It does not appear, nor do his slayers aver, that in doing this he overstepped the boundaries of calm, dispassionate discussion, or resorted to any unfair means, or did anything which a good citizen and an honest, upright gentleman might not do with perfect propriety and without violating any of the amenities of social life. But the sequel shows that he was winning others to his way of thinking and adding strength to the ranks of the temperance army. As his arguments could not be answered, it was determined that his tongue must be silenced. To accomplish this the four McCoys lay in wait for him, and as he passed their den of concealment unarmed, attending to his professional duties, opened fire upon him from their hiding-place in the house of one of their number.

We do not wish to be understood as saying that all, or even any considerable number of those engaged in the liquor trade, approve the course pursued or condone the offense. But this tragedy, following so close upon the trial and acquittal of the slayer of Rev. Haddock, who was murdered for offensive activity in the cause of temperance and for doing precisely what every good citizen will and ought to do, endeavoring to have the law observed, shows an animus upon the part of the antagonists of the cause of temperance that needs to be removed.

No matter how greatly the more respectable members of the liquor fraternity may deprecate the conduct of these murderers, they can never relieve the saloon from the odium which must attach to the commission of crimes of this character. It was the saloon interest that incited to both homicides; in both instances the object was the same, and it is a well-attested fact that the murderers of Haddock owe their escape from the gallows to the saloon influence. The effect of these offenses will be to bring hundreds of thousands of men into active alliance with the friends of temperance who hitherto took but very little interest in the controversy, and who would most likely have voted in support of what they regard as a time-honored right and against the enactment of prohibitory laws. This high-handed usurpation, these open, deliberate murders of public men for no other offense than the expression of their honest opinions, will not be tolerated by the intelligent, order-loving citizens of this country. When popular indignation is once fully aroused—as it will be, unless these men are properly punished and this sort of conduct is abandoned—the entire liquor traffic will be wiped out as effectually and as thoroughly as was slavery. Those engaged in the trade in intoxicants owe it to themselves to frown down such heinous conduct; and they should be the first to demand that the slayers of both Haddock and Northup be made to suffer the extreme penalty of the law. If they do not take this course, or are found in sympathy with a verdict of acquittal, the day when prohibition will be a fixed fact in every State in the Union is not far distant. The trial of the murderers of Northup will be watched with great interest by the whole country, and the conduct of all concerned will be subjected to the severest scrutiny.

ABOUT SOUTHERN CENTRAL CALIFORNIA.—Brother J. V. Webster has promised to tell Temescal Grange "something that he knows" about home-building at Creston, San Luis Obispo county, and the new developments of Southern-Central California. The meeting opens at 2 o'clock, Saturday afternoon, May 21st, in Oakland. All Patrons are invited.

ALHAMBRA GRANGE SOCIAL.—We gratefully acknowledge a fraternal greeting from Alhambra, though Secretary Lander, with complimentary tickets to their social, to be held tonight, May 21st, and we wish a happy evening to all who can be present, whether we be of that fortunate number or otherwise.

BIRTHDAY PARTY.—The members of Temescal Grange gave a birthday surprise party to Mrs. Eliza Brooks at the residence of her daughter in Oakland last Thursday evening, further mention of which will be made next week.

J. S. TIBBITS, of Santa Rita, has just been commissioned statistical reporter to the Department of Agriculture for Monterey county.

BETWEEN $30,000 and $40,000 worth of eggs and poultry were shipped from Lompoc the past year.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

THE POMEGRANATE, says the Livermore *Herald* of May 5th, is making its appearance as a curiosity and ornament on many private grounds in our vineyard district. It flourishes, and we believe its cultivation, to a limited extent, would be profitable.

Amador.

FINE BARLEY.—*Dispatch*, May 14: We were shown some barley this week, raised on the farm of Mr. John Murphy, of Butte City, which compares favorably with the best produced in the valley counties. The stalks are about six feet high and the heads are very heavy and measure over four inches in length.

Butte.

MISCHIEVOUS CRICKETS.—Chico *Enterprise*: From Dr. Nelson Watts, who returned from Nelson on the 6th, we learn that the cricket pest has made its appearance among the grain-fields of that section, destroying the wheat as it heads out. The doctor brought with him a handful of grain, the heads of which were all nibbled, some being eaten clear down to the stem. The ravages of this pest have just commenced, but there is no telling where they will end. So far as observed, their depredations were all confined to the adobe lands, as an inspection of the sandy soil failed to show any signs of crickets.

SHIPPING CHERRIES from the Rancho Chico orchards has begun. Two hundred and fifty boxes were shipped by express the 13th, part for Denver and part for Chicago. The Rancho Chico cherries are famous all over the United States.

Contra Costa.

HOLSTEINS.—Oakland *Enquirer*, May 11: Wm. Hawes, of the Holstein rancho near Clayton, sold 100 head of cattle to Mr. Morse, of Texas, two weeks ago, and Mr. Morse took them to his ranch near Fresno, recently purchased. The herd included 18 calves and several yearlings. The price paid was $22 per head. There were a few graded Holsteins in the head, which sold the cattle at that figure. Mr. Hawes is an admirer of the Holstein breed, and has purchased from Mr. White, of Sonoma, seven head of imported yearlings, which he shipped to his ranch yesterday. The cattle are handsome and uniformly marked in the fashion peculiar to that breed, having white faces with white stripes across the shoulders and hips. The purchase includes one bull, for which Mr. Hawes paid $250. This will be a valuable acquisition to Contra Costa county, and our exhibitors at the District and State Fairs will have to look to their laurels.

AGRICULTURAL SOCIETY.—Martinez *Item*: The annual meeting of the Contra Costa Agricultural Society was held at Pacheco, Saturday, E. B. Smith presiding, and A. E. Dunkel secretary. The following named committee was appointed to formulate or suggest a new constitution and by-laws: E. B. Smith, James Foster, R. C. Terry, William Shaffer, G. P. Loucks, Henry Polley and E. A. Seaman, to report at a meeting to be held at Concord on Saturday, May 28th—to which date the election of officers for the ensuing year was postponed.

Inyo.

IRRIGATION PROPOSED.—*Independent*, May 14: The Supervisors at their recent meeting granted the petition for an election on the formation of an irrigation district. The election is ordered to be held July 23. The ditch for the proposed district has been fully surveyed and will carry water to irrigate about 45,000 acres. Much of this tract is as well suited to orchard and vineyard, and also to general farming, as any land in the State. The town of Independence is near the middle of the proposed district from north to south, but just outside the line of the district on the west. All of the land in the district slopes gently to the east, and will be very easy to irrigate.

Lake.

DISTRICT ASSOCIATION MEETING.—Lakeport telegram, May 12: The directors of the Twelfth District Agricultural Association, composed of Lake and Mendocino counties, met here to-day, decided to hold the fair this fall at Ukiah, and elected L. F. Long, of Hopland, president; C. C. Hamilton secretary, and John S. Reed treasurer, both of Ukiah. There was a considerable fight between Willetts and Ukiah for the fair.

Los Angeles.

CABBAGE VERSUS GRAPE.—Anaheim *New Era*: Mr. Leonard Kellogg has gone into the cabbage-head business, too. He took Deethman's cabbage patch off his hands on shares, just to accommodate him, you know, and now he says he will get $400 worth off the two acres. He advises vineyardists to dig up their vines and plant cabbages.

SERICULTURE.—Los Angeles *Times*: J. Wallen Smith has made arrangements to go into the silkworm business on a large scale. He has planted 20 acres in the San Fernando valley, near the Providencia ranch, with young mulberry trees, and has just received a consignment of eggs from the State Board of Silk Culture. The microscopic wrigglers are already beginning to hatch from the seed-like eggs. Mr. Smith has plenty of osage orange for them to feed on until the mulberries wax big.

PRECOCIOUS WALNUTS.—Anaheim *Gazette*, May 12: The objection to planting walnut

trees has heretofore been the long time between planting and fruition—generally ten years. But our friend, A. McDermont, of Orangethorpe district, has a large number of soft-shell walnut trees which he planted three years ago when they were one year old. These trees are now heavily loaded with fruit, and promise an abundant crop.

CHOICE ROSES IN VARIETY.—The *Times*, acknowledging the receipt of a huge basket containing 95 varieties of superb roses from Mrs. Leiber, of East Los Angeles, adds that that lady is very successful in raising roses. She has 300 varieties in her garden, besides countless other flowers.

CRYSTALLIZING FRUIT.—L. A. *Times*, May 5: The large square blue building on the west side of the track of the L. A. & S. G. V. R. R., just north of Raymond station, is the factory of the Pasadena Fruit Crystallizing Company, just finished. Work began there Tuesday, the first fruit crystallized being a large quantity of superb strawberries raised by P. W. Gates.

Monterey.

EDITORS PRESS:—The season is both dry and backward. About half the average annual rainfall has failed to connect. Grass is short and almost dry already. Hay crops are light. Grain in many parts of Salinas valley a total failure. In this valley light frosts are still observable some mornings by early risers. Fruit trees bloomed handsomely and fruit set well, but as moisture is deficient, it will probably be undersized. Cattle look well in most places and will fatten except on overstocked ranges. The feature of the season has been the north wind. Every little shower of rain was followed by a chilling, blighting norther, which neutralized much of the benefit of the moisture. The one remarkable growth of the year is the growth in the price of real estate. Neither frost, drouth nor norther checks it in the least; it will boom next June, and Monterey will reap the harvest.—E. B., *Carmel Valley, May 14.*

Napa.

ONE APRICOT ORCHARD.—Napa *Register*, May 6: Three or four years ago Le Grand M. Turner bought 50 acres on the Dry Creek road and immediately planted 4300 apricot trees (75 to the acre) of the Royal and Blenheim varieties, 360 cherry trees, 600 French prunes, 800 egg plums, some peaches, grapes and other desirable fruits. To-day a visit to Mr. Turner's place reveals as clean and thrifty a fruit farm as California can boast of; 75 pounds of apricots to a tree is all that the experienced horticulturist expects from trees of their size; but those figures might be trebled and still not reach the quantity of growing fruit. The process of thinning is now going forward. The plan of pruning followed gives the top of the tree a goblet shape, leaves the center open to the sunlight, and insures a growth of fruit very low down.

Sacramento.

TAME CARP.—Galt *Gazette:* About the most interesting sight on the wagon-road between Galt and Sacramento is Pete Miller's carp pond, at the Lake house, in which there are 18 feet of water and about 200,000 carp. The fish vary in age from hatching time to three years, and in weight up to five pounds—some of them being two feet long. A most interesting sight is to see the carp taking their meals. Mr. Miller feeds the fish daily about noon. As the hour approaches he repairs to a certain place on the bank, with a good supply of bread, calls the carp to him and casts the bread upon the water, and the fish swarm to the feeding-ground, as would a drove of hogs, at the sound of his voice. The scramble for crumbs at times becomes fearful; they even jump from the water to the bank to secure a morsel of food, and readily eat bread from the hand without manifesting the least fear. It is worth going a long way to see.

Santa Barbara.

EDITORS PRESS:—We have set the 27th, 28th, 29th and 30th of September next as the time of holding our Santa Barbara County District Agricultural Fair.—H. B. BRASTOW, Sec.

OLIVES AT LOMPOC.—*Record:* The olive tree at Elder Webb's home in Miguelito canyon bore a fine crop last year, and the fruit is pronounced excellent. There will be a great number planted in and about our valley the coming winter.

THE COMMON LINNET is the worst fruit pest known to our section, and although we dislike to encourage the destruction of even these birds, yet if they are not restricted in their ravages they will soon become unbearable. We believe it far better to organize and offer a bounty for the destruction of their nests than to wait till they are hatched and poison or otherwise kill them. The boys could be utilized in hunting up the nests and receive their reward accordingly.

LATE-SOWN MUSTARD is looming up grandly, and many fields which were thought beyond redemption without more rain are giving evidence of a substantial growth. McKay says that there are few, if any, crops of mustard that will fail, after a most careful survey of the crop in the valley.

BIG BEET PATCH.—J. W. Schoultz has 30 acres of cow-beets planted on his home place, and expects a yield of over 70 tons per acre.

Shasta.

ALFALFA ON RED LAND.—Cottonwood *Index:* On Tuesday last J. M. Alford, who lives on the South fork of Cottonwood creek, brought to this office a sample of alfalfa two feet and five inches long, grown this season on high gravelly red land. Mr. Alford has been experimenting with alfalfa, and says this is a genuine test and satisfies him that it is a success in this neighborhood without irrigation on the red land. He also has grapevines one and two years old that are so top-heavy they are breaking under their own load.

Sonoma.

ROSES.—Santa Rosa *Democrat:* Climbing almost every house, drooping down from tree-tops, peeping through fences, they seem to be ever present perfuming the air and lending joy, cheerfulness and fragrance to every passer-by. The rose, for whom our city was named, seems to have adopted it for her home, and even the great rose-growers of Europe confess that they never saw such a profusion and perfection of bloom. Hermosa gives us buds and flowers nearly all the year, and many of her sisters not less beautiful vie with her in fragrance and abundance of bloom. Banksia climbs our trees and glorifies them with myriads of violet-scented flowers. Cloth of Gold, La Marque and Marechal Niel, all so shy of growth and bloom in many places, here grow with astonishing rapidity and yield an abundance of flowers all summer—which means eight or ten months at least. Agrippina, Safrano, Gen. Jacqueminot, La France and all the old well-known varieties are seen at almost every turn loaded with glossy green foliage, perfect buds and blooms of the purest colors. Of all the roses known there is not one which will not thrive here, and most of them better than in their native homes.

Tulare.

IRRIGATED GRAIN.—*Delta*, May 5: During the recent dry spell in this county some indifferent farmers turned water into their ditches and left them standing full, to benefit the grain by seepage from them alone; others, a trifle less indifferent, turned the water into the low places and dry sloughs in their fields and left it standing in them as well as in the ditches; while others, realizing that water is easily converted into coin in a dry season, not only filled their ditches and kept them full, but likewise plowed furrows from them out upon the higher ground and to those places in the grain showing the need of moisture, with the result of a greatly improved appearance in their fields over those of neighbors who hoped that all would turn out well, but were negligent in the use of means necessary to that end.

FRUIT FROM THE STATE EXPERIMENT STATION.—Three Rivers Cor. *Delta:* Fruit trees are heavily loaded this year with some extra choice fruit from the scions sent from the State University. Prince of Wales prunes hang very thick in clusters. The Alberge de Montgamet apricots look fine and are larger than hickory nuts, but not ripe yet. All the University fruit looks well except the De Coulorge, and probably it is growing on too sandy soil, for the trees have been blooming for about two months, and now some of the fruit has just commenced growing, while there are a few good-sized apricots. Ira Blossom has two pecan trees in bloom.

TRANSPLANTED FROM INDIANA.—J. H. Demarree in *Delta:* On the 12th of March my brother took up a number of raspberry roots of the Gregg variety, which had no sign of bud or life, in Parke county, Indiana. He brought them here in his trunk and made me a present of them, and just one week from the day they were dug up I planted them. In 30 days from the day they were dug, they were blooming. My brother thinks this a wonderful country.

Yolo.

A MOTHERLY ROOSTER.—Cor. Dixon *Tribune:* A lady near Davisville lately lost one of her setting hens, just as the brood of 20 chicks were taking their first timid peep at this uncharitable world. Not one of the barnyard dames could be induced to act as foster-mother, and in this extremity she resolved on an appeal to the paternal instincts of chanticleer himself. Accordingly, the lordliest don of the yard was captured and imprisoned with the orphaned brood. At first his actions betrayed surprise and perhaps disgust, but no malice, and after a few hours, with a heart touched no doubt by the many appealing voices, he submitted to his fate and has since been most faithful to his trust, scratching as he never scratched by day and spreading his ample wings for their protection at night. But paternal care has banished pride, and he no longer crows nor resents the challenges of his rivals. Indifferent to his personal appearance, he goes to his daily toil with bowed head and trailing plumes, with apparently no other thought than the immense family intrusted to him.

APRICOTS GOING EAST.—Winters, May 18: Six hundred and sixty-one boxes of apricots were shipped from this place to-day for Porter Bros., Chicago. The shipment was made by G. W. Thissell, J. E. Sackett, W. J. Pleasants and Mrs. G. M. Blake. This is the first for the season of 1887.

NEVADA.

GOOD PROSPECTS.—*Lyon Co. Times:* The farmers of Mason valley are all looking forward to a summer and fall of prosperity. It is predicted that many more cattle will be fed in the valley this season than for many seasons past. This, of course, will necessitate the raising of larger crops. At least 1500 acres more of land have been put into alfalfa this year than heretofore, and this means that 7500 more tons will be harvested. Considerable more wheat and barley will also be raised, and the potato crop, in fact crops of all kinds, will be greater. The supply of water is not expected to be short.

WATER-STORAGE.—*Silver State:* The Nevada Land and Cattle Co. has built a dam for the storage of water for irrigating purposes in Willow creek, near the boundary line of Humboldt and Elko counties. It is a magnificent piece of engineering work, built between two bluffs, the foundation being on the solid rock. The reservoir covers a large area, and will hold enough water to irrigate several thousand acres. It is nearly full. The water is intended for irrigating alfalfa in Squaw valley, where several hundred acres were sown a year ago. This spring the company is increasing the acreage and expects in the course of a few years to rival the Big meadows in raising alfalfa. There are many localities in Nevada where the water-storage system can be adopted, and while it requires considerable capital to build reservoirs, the investment will prove profitable, as the value of every acre of land reclaimed from the desert is increased from the Government price to $30 or $40 per acre.

A Water-War Averted.

It is with feelings of relief that we note the latest news as to the canal troubles in Fresno and Tulare. Alfalfa fields, gardens, vineyards and orchards were threatened with blight and destruction through an injunction issued by Judge Cross, of Tulare; feelings had become embittered, and within the past fortnight the irrigators had organized armed opposition to the attempts of riparian agents to cut off their supplies.

The directors of the Fowler Switch canal, going to their headgates to shut off the water in compliance with the orders of the court, found 40 masked men under arms in possession, and determined to run the water. At the Centerville and Kingsburg ditch about 70 men similarly armed and disguised were found, who said that they were there to save bread for their children. So likewise the approaches to the head of the Seventy-Six ditch were guarded by a force of 50 men, heavily masked and armed, who forbade any interference with the gates.

Under these circumstances on the 16th the directors of the Fowler Ditch Co. and the Centerville and Kingsburg Co. appeared before the Superior Court of Tulare county, to show cause why they should not be adjudged guilty of contempt of court for diverting water from Kings river in violation of the injunction heretofore issued, and filed answers showing that there was a large supply of water in Kings river, sufficient to fill the canals and to supply all riparianists as well. The judge announced that if such was the case no injury could result to the riparianists, and fixed the 24th inst. for further hearing of the matter. As it is claimed there is abundance of water in the river for all, it is thought that the judge's ruling practically settles the controversy.

No wonder "there is great rejoicing at Kingsburg, Selma, and other points," that the apparent necessity of the farmers choosing between submitting to ruin or resisting even to blood has been averted.

Death of Hon. J. F. Black.

Hon. J. F. Black, of Livermore, an old and well-known resident of Alameda, died suddenly in San Francisco, May 9th. The following sketch of his life is given in the *Call:*

He was born in Burlington county, N. J., on April 1, 1835. On April 26, 1853, he sailed from New York on board the Crescent City for Panama, whence taking passage in the Golden Gate, he arrived in San Francisco June 1, 1853. Mr. Black located at once in Alvarado, Alameda county, and subsequently purchasing the farm now owned by S. P. Harvey, there farmed until 1856. Disposing of the ranch in that year, he moved to Dublin, Murray township, followed farming on the Dougherty ranch, and was the first, in point of fact, to till the ground in that locality. In 1863 he transferred his operations to the Bernal rancho, where he has since engaged in raising grain. In 1866 Mr. Black purchased the interest of the Bernal brothers in the ranch El Valle de San Jose, consisting of 7700 acres, part of which he retained and used for farming. Mr. Black, besides his large grain-growing enterprises, had many acres in vines and hops, and with the assistance of Chas. A. Wetmore he had established on the Arroyo Valle what promises to be one of the best dry wine districts in the State. In 1884 he was elected assemblyman from the district in the eastern end of the county on the Democratic ticket, and was a prominent figure in the Legislature of 1885.

WYOMING CATTLE KINGS FAIL.—The firm of Swan Bros., of Cheyenne, composed of Alex. H. and Thos. S. Swan, has made an assignment for the benefit of their creditors, without preferment. They were heavy operators in live-stock and in land. Their liabilities are about $1,000,000, and it is thought their assets will not fall behind. The firm was deemed solid, financially, and the failure occasioned no little surprise.

FOREST FIRES have been raging disastrously on Cape Cod and in the northern Michigan peninsula.

The State Fair of 1887.

The following circular has been issued to the Boards of Supervisors of the different counties. It contains important information concerning the coming State Fair:

We desire to call your attention at this time to the great benefit that would result to your county from an exhibit of its varied products at the State Fair of 1887. We are informed, and have reason to believe, that there will be a large influx of Eastern visitors at the State Fair this year. We are of the opinion that President Cleveland will pay this coast a visit about that time. A large delegation of veteran firemen from New York will also be here. And as it is our only desire to assist in every way to increase our population and enhance the values of land, we would most respectfully suggest that your honorable body make an appropriation sufficient to pay the expenses of getting an exhibit of this kind together.

The railroad company transports the same free of charge; and as you will be certain to receive a portion of the money appropriated by us, and may receive enough to remunerate you in full for the outlay, this money can be returned to your treasury, so that you will have the full benefit of exhibiting your resources to the world—have your county written up and advertised at so small an expense that it will not be noticed.

The State Agricultural Society is laboring to bring out California's resources. Much has been accomplished through their efforts in the past, and we should certainly be aided in the way of exhibits by the various counties who are to receive the direct benefit therefrom. We have appropriated $2000 this year for these county exhibits alone, so that all that is necessary for you to do is to collect and arrange your products for exhibiting, call on us for the premium awarded, and return home with the satisfaction that you have succesfully shown the productive qualities of your county; then you can well say, if immigration is not increased, it was through no negligence on your part. Appoint some one from your community who is enthusiastic upon this subject; give him the necessary instructions, with power to act. Appropriate from $300 to $500 to assist him, and we are positive that the people of the county will applaud your action. Apply for space at once, as we will devote the entire building to the display of county products, if necessary. We would urge you to awake to the proposition; get in line; keep up with the procession; that the benefits may be reaped by the people of your county, individually and collectively. You are more interested than we; hence, we say, the matter rests with you.

The State Agricultural Society has added a new feature to the premium list this year, in the shape of premiums for exhibits of grain in the sheaf. We call for 40 sheaves, 10 inches in diameter, of 10 varieties; not necessary to be grown by exhibitor, but he must name variety, locality, and producer. First premium, $40; second, $20; and third, $10.

This exhibit is for the purpose of showing our Eastern brethren the growth of cereals in this great State. Notice is given at this time, so that the samples may be gathered during harvest, and laid away. The following are the condltions relating to

County Exhibits.

The importance of an exhibit made by separate counties, showing the productive qualities of the various sections of our State, has become more apparent each year since the system was inaugurated by this board, Recognizing the interest made manifest in the past by both the public and the exhibitors, through whose energy and enterprise valuable agricultural lands have been brought to the notice of the world, and counties with small populations have increased in a manifold degree, by reason of the producer having come forward with his products that were of such quality as to enable him to meet all competitors, the board have deemed it proper to increase the premiums in this department, and to that end have appropriated $2000 to be distributed among the various counties making displays under the following provisions. To those who may have charge of the exhibits, we would call their attention to the fact that these awards will be made for the most extensive, perfect, and varied exhibit of farm products (exclusive of live-stock) exhibited as a county production. Thus it will be seen that it is to be wholly devoted to the products of the farms located in the county where the exhibit is made from, and does not include manufactured goods of any kind or character except those grown and raised in the county from whence the display comes: For the best display, as per explanation above, first premium of $500, cash. The remaining exhibits shall receive premiums in proportion to their excellence, as compared with that receiving the first premium. Competition to be between counties only. That is to say, that the entire exhibit made by one county must compete against the entire exhibit of another county. The premium awarded to each county exhibit will be paid to the committee in charge of said exhibit.

Address the Secretary for information of any character respecting the exhibition.

EDWIN F. SMITH, Secretary. L. U. SHIPPEE, President.

A Device for Irrigators.

A subscriber at Hill's Ferry having expressed a wish to ascertain what is used at Los Angeles "for stopping the holes in checks so that the water will not run through," we referred the matter to Mr. Garey, of Los Angeles, whose letter follows:

EDITORS PRESS:—In answer to your correspondent's questions regarding "tappoons," they are made of heavy sheet iron and of a semi-circular shape, thus: ∪ with the top mounted with a piece of wood 2x3 or more. They are made of different sizes, to correspond to the width and depth of the zanja or water-ditch in which they are to be used. In using them they are placed crosswise in the ditch at or near the point where it is desirable to direct the water upon the land to be irrigated. They are a success, and now generally used here.—THOS. A. GAREY, *Los Angeles, May 3, 1887.*



Her Letters.

[Written for the RURAL PRESS by FANNIE H. AVERY.]

Like bars of sunlight falling
Into a darkened room;
Like sweet bird-voices calling
At night, through chill and gloom:

Her letters come and make me
More strong to do and dare,
And for a season take me
Away from bitter care.

What though long miles divide us,
Far from each other's reach?
No matter what betide us,
Our love can span the breach.

Miss Phœbe Wheelock's Piece to the Papers.

My father was Deacon Jabez Wheelock, one of the most looked-up-to men in the church, and no connection whatever to those shiftless Wheelocks that live over to Cranberry Four Corners. Mother, she was a Crowell, and her folks as well as father's were from Rhode Island. That is years ago. I was born in New York State, right here in North New Salem, and in sight of Massachusetts. There was 10 children, but when I was four, they was all dead but me. I take after father, and all the Wheelocks have a nose and a temper. But they haint talkers, and I should never have tried to write this piece if Dr. Peck's sermon, last Sunday, hadn't worked me up past barin'. Besides, I was brought up orthodox, and taught that wimmen folks and children should be seen and not heard. And I'm not used to writin', as you'll all find out, and spellin' was always a dreadful chore, though I did once git to the head, and git a ticket for spellin' "dough."

I don't mind bein' called an old maid if it ain't said to be spiteful, fer I am one, and I presume I have notions, but as fer that, old wives have 'em, and old men. Jonathan Trowbridge was killed in the battle of the Wilderness, and I never saw no other man I'd marry, though I've had good offers. Somehow, to see wives or husbands ticketed off like the heads to a sermon, looks queer to me. Dr. Peck calls Mis' Peck, "My present wife," No. 2 he calls "My late wife," and No. 1—Sally Rogers she was, and she left him some money—he calls, "My first wife." I couldn't stand no such, and here I'm a lone woman with no kin folk nigher'n a sixth cousin in Oregon. I live in the little red house poor father built, and I've got all the things poor mother did with, and I own some stalk in the ax fact'ry, and I have stiddy work, fer the way the small boys in this town stram out their clothes is a caution. Best of all, I have Polly Trotter, and fer all I feel like a widder, and gittin' along without a man ain't allus handy, I'm happy. I've fetched Polly up by hand, so to speak, fer she's 11 and three months, and I've had her now it's going on seven years.

There ain't a girl better at her books or spryer in the house than she is, and I'm dreadfully thankful she ain't liable to grow up a drunkard, like her father afore her, who, after causin' all sorts of shame and miz'ry, beat his wife's head in with the choppin'-block and died three days after with the tremens. But it's awful to feel your father's lyin' in a drunkard's grave, and to see the man that helped him lie there, every day, through his livin' but three doors off, a carryin' on the same miz'ry-makin' business. "Nick's Place," it says in gold letters on the front door, as bold as brass, and it's the right name. The Evil One has full possession of the premises 'cept where Mis' Hadden lives herself. There oughter be a par of horns over that front door instid of over Joel Dent's, the taller and hide man's shop. Many's the time Mis' Trotter begged and pled with Nick Hadden not to sell her husband rum. But my! she might better 'a pled afore the hitchin' post. Nick, he said: "Bizness is bizness; let him stay away!"

There warn't no such a hole on the corner when poor father built here on Spruce street. It's a nice neighborhood now, but the Casket Works a-buildin' on Spruce street started the licker men and the cigar men our way, though anybody'd think grave clothes and coffins'd give men solemn thoughts. But they come right from planin' the planks that may hold 'em lifeless chunks of clay, to Nick's place, an' they spend so much money with him, he's jest put a big lookin'-glass jest inside his door with a mahogany frame broad as a sofa back. Whoever don't prosper or is stinched, 'taint Nick. Nobody gits up a strike on him, and it's 'nactual fact, Judge Plunkit's 'fraid of his influence 'durin 'lection.

Well, two weeks ago, the W. C. T. U. had a big meetin' here. I never heard a female talk before, and when one got up in the town-hall and begun like a man, my heart was all a flutter. But it fluttered 'nother way, directly, for 'twas Miss Sanders, Dr. Sanderses' wife, from Chicago. Her daughter's gone on a mission to heathen parts, they say, and is a reg'ler built doctor. My! how that woman did talk! All the thoughts that had been half-thoughts like in *my* head, she set in order, as neat as a row of hooks 'neyes. She begun by speaking of how everything touches wimmen if they do stay home and keep house. "If a drunkard suffers," says she—which I myself don't believe many of 'em do—"what does his wife and family suffer? The saloon man spreads his trape, and talks about free gov'ment, but the wimmin folks hain't no freedom to keep temptation away from their sons and husbands. Wimmen folks is half the folks there be. They're taxed (I know that), and put in jail, and hung. Their work helps to make the world richer; their rights ought'er be the same as the men folks." There was lots more I can't give straight off, and I don't believe in tellin' things you remember sort'er permiscuous.

The next Sunday our pastor, Lycurgus Peck, D. D., preached to the wimmen. He's a dreadful good man, Dr. Peck is, and can tell the Hebrew and Greek for everything in the Bible, and he's wrote a book, and if ever a man was gifted in prayer, and affectin' at funerals, he is; but if I do say it, I don't think he knows so well what I was made for as I do myself, and I guess the rest of the wimmen think so, unless mebbe 'tis Mis' Peck.

These were his pints: "Wimmen," says he, "hain't no right to vote, 'cause they can't fight. That was firstly."

"Secondly, votin' would interfere with their bizness."

"Thirdly, their votin' would make things worse than they be now."

I wrote those pints down the minute I got home in my diamond dye almanac. Of course there was flow'ry talk all around 'em, but pints are pints.

I've always stood by the pastor, and we've had some few fusses in our meeting; but truth is truth, and ought to be spoke, if it does hit somebody. In the first place, Dr. Peck couldn't lick a chickin, leastways one 'twould peck hard (though I mean no disrespect to my pastor's name). He's only a little over five feet, and is jest about as thick as the narrer way of a case knife. He can't do a single chore around the house, even to gettin' coal and kindlin's for his study. Mr. Clutterbuck, the druggist, told me himself, that the strengthnin' plasters he's sold that dear man would paper the meetin'-house. If it was ever necessary, I could double Dr. Peck up in a package, and put him in my satchel bag, without half tryin'. So, for such a man to say votin' goes with fightin', and that I must stay home, and it's proper for him to go down to Dexter's hall, and vote for his wife and me, and Polly, and the 16 lone wimmen on this street, is jest ridiclous. We have p'lice, for which Dr. Peck don't pay a cent of tax, but I do, and 12 other widders on this street. During the war, Dr. Peck staid right here in North New Salem, never losing a meal of vittles or a wink of sleep.

But I follered Jonathan, and worked in the hospitals, and watched, and tended, till I was clean beat out. Jonathan fit for me, I know, but somebody fit for Dr. Peck, and Squire Barnes, and Judge Plunkitt and a sight more I won't mention. But their ain't no talk of *their* not havin' no bizness to vote, though they did save the Union by dep'ty. If Dr. Peck *had* gone to the war, he'd a-learned that if wimmen don't fight they have consid'able to do with a war, when there is one. And if he'd a-read the papers, instid of so much 'riginal tungs, he'd a-learned that men are gettin' the idee by degrees (nobody learns everything t'onst) that matters can be settled without men a pitchin' at each other like a pack of wild catamounts.

Wimmen are awful busy. But most men are handier round a house than Dr. Peck, and wimmen git out to sewin' s'cieties, and missionary meetin's and prayer meetin's, and if some on 'em want to talk gossip they've hours on hand, and yit I don't see no men ner children a sufferin' in North New Salem from wimmen's neglect. I don't know no woman, and I have sewed by the week for 'most everybody in town, that wouldn't be willin' to stir 'round a little faster 'lection day for the sake of puttin' down saloons. They do go to political meetin's, and that takes enough sight longer'n 'twould to vote. There was a big missionary meetin' over to New Salem Junction last week, and wimmen from four States was to it and it was a blessed time, and I don't believe any work was left that wouldn't keep. If wimmen are too busy to vote it's for them to say so, not for men.

The last pint was the most upsettin' to me, because Dr. Peck said right after it, "The female sect is the upliftin' force of the world," which don't jibe with there bein', as he says there is, one or two or three bad wimmen represented by every bad man that votes. I asked him for his figgers the minute he come down from the pulpit, but he put his chin up in an aggervatin' way he has, and said he never lets himself git into discussion with the female sect. *I* shall be glad to know if there *are* any figgers to back him up. A bad man may represent one or two or three bad wimmen, jest as he says; but it don't take Solomon's wisdom to know them same bad wimmen may represent an unaccountable lot of bad men. This ain't pleasant to talk about, but I ain't to blame for it.

The Mormon wimmen, Dr. Peck said, all voted to keep polligamy a-goin'; and he seemed to think he'd made another pint. He didn't seem to know that his own mother—one of the saints she was, too, but a good deal juicier'n the doctor—would, if she'd a had a sixth or a sixteenth of a husband, a-voted to keep him. What would those poor benighted wimmen be called, and what would their children be called, if they voted away all the husband and father they had? Dr. Peck's always talkin' about invyrnmint, but he forgot it that time. Mormonism is a sample of the wickedness and smartness of men, and marryin' and unmarryin' laws is another. Though I don't know's I ought to throw up too many of men's faults at 'em at once. I git dreadful worked up when I think of the doin's that can be done. Dr. Peck's own brother-in-law, a low-lived kind of smart lawyer, went to Chicago and staid over night, and when he come back he was divorced from his wife, and Mis' Allen was divorced from her husband, and the two got married as bold as brass, and Dr. Peck did it. I don't make no comments.

And Dr. Peck he said wimmen would vote for whisky. Some might, but I never seen 'em, any more'n I've seen the sea-serpent. But I won't deny the one nor the other. Everything ain't in North New Salem. Mis' Hadden wouldn't; she's offered to do anything 'f Nick would shut up his miz'ry fact'ry. Ner my washerwoman when I have one, Mis' Staub, wouldn't, though she goes and buys her man, as she calls him, a mug of beer every night of her tired life. "He will haff it," she says, "und if I don't git it Hans will go hisenself, und mit dose mens he puys more as tree peers, und siggars, und he will pay for dose uder mens, besides hisen peers, und spend more as I can earn, und work hart all tay."

The only woman I know that gits drunk is old Sally Martin, and she takes opium. She says she can't stand her "heart scaldin' sorrer" without it, and no wonder. Her man was hung fer killin' a man when he was drunk ('twas years ago when killin' was killin'), and her two boys are two of the worst on the face of the earth. When they ain't at Nick's place, er stealin', they're in jail.

Now bein' most 50 years old, earnin' my own livin' an' payin' taxes, and askin' no odds of nobody 'cept neighborin', and havin' Polly to look after, and she's as pretty as a peach, and sure to git married, makes me feel there ain't no sense in my position.

To be sure I couldn't go to war and shoot off a gun, but I could tend the wounded, and do their cookin', and knit and mend and make for the well ones, jest as I did four years, more'n 20 years ago, and I guess that's more'n Dr. Peck and lots of men did. My mind's made up that I had oughter vote. I'm perfectly contented to stay home in my little red house and cut and press little jackets and trowsers, and tend to Polly, and Bildad, our yellow dog. I couldn't make a speech if I wanted to, for I stutter some, if I'm put out any. But I want somebody on the school board that'll dreen out the ma'sh behind the schoolhouse, or do somethin' to make the buildin' healthier, and I want somethin' done to put down the saloons, and I want to say my say as to who shall go to Congress. Our representative ain't a man no good woman would touch with the tongs. Ef Polly ain't liable to grow up a drunkard, she's liable to marry a man who'll turn into one. And I think a sight of the young folks growing up, the children of my old friends. Of course Polly is first, the dear. Words can't tell my feelins fer that child. But I love 'em all, an' 'most of all the young folks call me Aunt Phœbe, and seems if they couldn't do nuff for me.

Now Hans Staub votes, an' he can't speak a dozen words of English, and don't know no more of America than he does of Africa. Pat Ryan votes, whose wife takes boarders to support him, and he knows about as much as Hans Staub. There's most a thousan' jest such in North New Salem. But there's a hundred more wimmen in the township than there is men, an' as most wimmen think of nothin' all their lives but makin' some man an' his children good and happy, I guess what's good fer the men is what they'd vote fer, ef they had the chance. I hain't got no husband, to be sure; but ef I had one I'd want to be proud of him, it's nater. But I must close. The gist of the whole matter is I feel quaky fer Polly, and I want the saloons put down, and I find on givin' the subjec' a jineral view, I ort to vote. This is my first piece, and it shell be my last. I ain't one to waste my breath.—*The Union Signal.*

A LEGAL PROBLEM AT THE WHITE HOUSE.—Col. Lamont is wrestling with a great legal problem. In the White House mail the other day was a letter from a rural Mississippian, inclosing a lottery ticket which had drawn a handsome prize. The back of the ticket bore the announcement that "no ticket will be paid unless it bears the President's signature." The president of the company was meant, of course, but the Mississippian thought it meant the President of the United States, and he was very urgent in asking that Mr. Cleveland indorse the ticket and hurry it back to him. The Colonel's first impulse was to return the ticket with a polite little note of explanation; but, on second thought, it occurred to him that he could not do so. The Revised Statutes provide, in very plain language, that "no letter concerning lotteries shall be carried in the mail;" and that "any person who shall knowingly deposit or send anything to be conveyed by mail in violation of this section shall be punishable by a fine of not more than $500, nor less than $100, with costs of prosecution." This clearly prohibits the Colonel from sending back the ticket. He does not see how he can even communicate his troubles to the owner of the ticket, as he can send nothing through the mail concerning it. He is undecided between telegraphing the man to come on to Washington and sending the ticket to him by special messenger.—*N. Y. Sun.*

Saved by Kindness.

John Roach, the famous shipbuilder, believed in the law of kindness in dealing with erring men. Out of the 25,000 men employed by him first and last, there were 70 found guilty of criminal conduct. He saved 60 of them. This is his story of the way he reformed a "confirmed drunkard." The man was a "master workman."

"He had terrible sprees, and had them pretty often. He would come raving into the shops, disgracing himself and disgusting everybody. When sober he was penitent, and I forgave him, and took him back again and again. I appealed to him until there seemed to be nothing else to appeal to. One morning he came in after one of his sprees, and said: 'Mr. Roach, I want you to discharge me. You can't make anything of me. I have broken my promise, and abused your trust over and over. You took me up when I had nothing to do, and you learned me your trade and paid me good wages, and bore with my faults till it ain't human to ask you to bear any more. Now discharge me.'

"'Mike,' says I, 'I won't discharge you, but I'll let you resign. I'll write your resignation,' for an idea struck me. I went to my desk and wrote:

"'John Roach—Sir: You helped me when I was penniless. You gave me work when I was idle. You taught me when I was ignorant. You have always paid me well. You have borne with my infirmities over and over. But I have lost my self-respect, and have not enough regard for you or love for my wife and children to behave like a man, and therefore I hereby withdraw from your employment.'

"I gave it to him and said, 'I want you to promise me one thing—that you will always carry this with you, and that, when about to take a glass of liquor, you will take this out, read it, and sign it and mail it to me before you drink.' He promised solemnly that he would. He stayed in my employ for years and was never drunk again."

About a Mortgage.

The editor of the Santa Ana *Standard*, having just succeeded in paying off a mortgage on his ranch in Orangethorpe, rejoices in the full ownership of "61 acres of as fine land as California boasts." His experience with the "dead pledge"—now so happily past—moves him to wise reflections, as follows: "A mortgage is a queer institution. It makes a man rustle and keeps him poor. It is a strong incentive to action, and a wholesome reminder of the fleeting months and years. It is fully as symbolical in its meaning as the hour-glass and scythe, that represent death. A mortgage also represents industry, because it is never idle and never rests. It is like a bosom friend, because the greater the adversity the closer it sticks to a fellow. It is like a brave soldier—it never hesitates at charges nor fears to close in on the enemy. It is like the sand-bag of the thug—silent in application, but deadly in effect. It is like the hand of providence—it spreads all over creation, and its influence is everywhere visible. It is like the grasp of a devil-fish—the longer it holds, the greater its strength. It will exercise feeble energies and lend activity to a sluggish brain, but no matter how hard the debtors work, the mortgage works harder still. A mortgage is a good thing to have in the family—provided always it is in somebody else's family. It is like a boil—always a good thing on some other fellow. It makes one sour, cross, selfish, unsociable and miserable, and rarely does him any good, only to exercise him. In that respect it is equal to Vigor of Life or the latest patent medicine. We've had our last one as far as we know ourself. We would rather have the ague than have a mortgage. Adieu, old death pall, a fond adieu."

BEECHER'S VOICE NOT DEAD.—In the house of Edison, the inventor, there is a remarkable memento of Beecher. The inventor's phonograph for impressing on a soft metal sheet the utterances of the human voice, and then emitting it again by the turning of a crank, has never been put to any very valuable use, and Edison has only gained from it a few thousand dollars in royalties from exhibitors. But he utilized it to make a collection of famous voices. Since he became famous, his visitors have included hundreds of celebrities. Instead of asking them for their autographs or photographs, he has, in two or three hundred instances, requested them to speak a few sentences into a phonograph. He has kept the plates in a cabinet, and occasionally he runs some of them through the machine, which sends out the words exactly as uttered. Edison is probably the only man who can revive the silenced voice of the great preacher.

"AH, parson, I wish I could carry my gold with me," said a dying man to his pastor. "It might melt," was the consoling answer.

An April Walk in El Dorado County.

[Written for the RURAL PRESS by S. R. S.]

After a very heavy rain,
The sun comes out so bright and warm again;
And freshening breezes wafting o'er
The pine-clad forests to restore
All nature to its wonted bloom.
I wandered down the canyon steep,
With charming views, at every peep,
Of distant hills and planted land,
And nearer still, and close at hand,
The cosy foothill ranches
'Mid the peaches and the vines,
With the tinkling of the cowbells
Sounding like evening chimes;
And then into the rocky gorge,
Where the rushing waters ever forge
Their rugged way.
The moss-grown boulders here and there
Disclose green tufts of maiden-hair,
And small white lilies add their share
To nature's treat so rich and rare;
While nobly waving overhead
The towering feathery cedar branches spread;
And rounded oaks of evergreen
Mirror'd in pools of silver sheen,
With massy ferns whose drooping frondes lave
In every passing mimic wave;
And near the side, tho' none the less,
The useful, simple watercress.
In the torrent's uneven bed
The rich veins of gold lie hid,
Waiting the hand of patient toil
Their sunken treasures to despoil;
And ever and anon is heard
The gentle murmur of the humming-bird,
The tapping of the woodpecker
And startled rush of quail.
In the forest's deepest shade
The shy deer are seen to hide;
The hare starts across the way,
Unmindful of the screaming jay.
Here to the tired traveler,
Fresh from the ice-bound East,
Is spread for him a lordly feast
Of deer and game and purest wine;
Together each and all combine
In pressing welcome.
Come, oh, come,
And make with us your happy home.

BE TRUTHFUL TO CHILDREN.—I want to say a few words to mothers. At church I occupied a pew with a lady who had a beautiful little girl about two years old. Baby was restless, but mamma, trying to quiet the wee one, told several—well, let me tell you, and you name them. First she said, "If you don't keep still that man (the minister) will come and get you." Baby looked frightened at mamma, but after a momentary pause went on as before; then mamma said, "See that big dog under the seat; it is going to bite you if you don't keep still," and several other things of like kind; but enough. Some of you are turning away, but, my dear sisters, this is too important to turn hastily from. A mother's integrity and the confidence that baby, as she grows to womanhood, is to have in her mother are at stake. These are too precious by far to trifle away. In talking with an eminent Christian lady recently, she said: "My mother never told me an untruth. When I asked my mother many questions (as girls always do) that she did not wish to answer at that time, she said: 'I will tell you when you are older; you cannot understand it now, but do not ask any one else the question you have asked me to-day, but trust mother to tell you in her own good time.'" I never saw a better example of confidence between mother and daughter than the one of which I speak.

A SAGEBRUSH STOCK-WOMAN.—The Sierra Valley (Cal.) *Leader* of a late date has the following: Miss Ellen Callehan sold to James Miller the other day 46 head of beef cattle at 8½ cents a pound. This is the highest price paid in this valley in two years for beef cattle. Miss Callehan received $2312.75 for her cattle, and has a band still growing. Some 12 or 15 years ago her brother died and left her two good ranches and a band of cattle and horses. Since then she has managed the ranches and stock herself as sole proprietor. She is a noted character here for her peculiar manner in attending to her household affairs as well as caring for her stock and gathering in her large crop of hay, etc., all of which she personally superintends. She can harness a team, run a mower, break wild horses, or do any of the work on a ranch. She shows great charity for tock, as she has often been known to take the young calves, colts, chickens and ducks into the kitchen to save them from the inclemency of the weather for several weeks at a time. She would not take good bank checks or gold notes from Mr. Miller for her beef, but must have the coin, which she took home with her in a barley sack. The banks, she says, are all swindlers.

A FEMALE PILOT.—Mrs. Louise Daniels, wife of Captain Daniels, of the Lake Champlain steamer Water Lily, has just received a license as pilot of that steamer. She had passed in a most satisfactory manner the usual examination before the United States Inspectors, and was examined by Dr. A. P. Gunnell, Dean of the Burlington Medical college, with reference to color-blindness or other defects of vision. Her eyes were found to be perfect. She stood at the helm of the Water Lily recently on her first trip through the lake and received many encomiums for the skill she displayed. Mrs. Daniels, who has spent the past ten years of her life on the lake during the summer, is 42 years old and is the embodiment of womanly grace and vigor.

YOUNG FOLKS' COLUMN.

"Much Ado About Nothing."

[Written for the RURAL PRESS by MARION SAMSON.]

"Clara! Clara!" called a sweet voice to me across the lilac bushes.

I was gathering roses in the bright, dewy morning, mixing all kinds of wonderful dreams with my pretty posies, when mother could save money enough from her paintings, that were so much admired, to send me to college, and I in turn should grow rich enough to hide her brushes and palette and let her rest. Mother had worked so hard all winter that she was at present an invalid. We were spending the summer in a little mountain town in California. I was her only petted child. By the time I had picked at least half the blushing roses in the garden I had made quite a heroine of myself.

"Clara!" again called the voice.

I recognized my mother's voice now, so, hurrying over the rosebeds and violet patches into the house, I found mother seated upright in bed, her eyes bright with excitement, and two rosy spots on her pale cheeks.

"Mother! mother! What has happened?" I exclaimed, springing to her side in a moment. She thrust a letter into my hands, and, reading it quickly, I discovered that a distant relative of the family had just died, leaving us a legacy of a thousand dollars. The letter informed us that it was now at our disposal in a prominent San Francisco bank. Imagine my joy if you can! I, who had never owned $10 in my life.

"O Clara!" said dear unselfish mother, "you shall go to college next term and have some pretty new dresses to replace those shabby ones you wear."

I had completely forgotten college, shabby dresses; in fact, everything in the excitement of the moment. A thousand dollars all to ourselves to spend on candy if we chose! I actually believe I was growing light-headed over our good luck.

Mother called my scattered senses together by cautioning me to lock up the precious check very carefully. After considerable planning and discussing, it was decided I should take the early train to San Francisco next morning and return home the same evening. You may be sure it cost mother many a pang and even tears to let me go alone, but there was no one we could trust with our treasure, and as mother could not even leave her bed, there was no alternative.

It is necessary to add that I was only 16 years old and had never been absent from my mother's side before. Such a thing as traveling alone was unheard of in my experience. I suddenly felt real old, and walked upstairs quite sedately to investigate my limited wardrobe. I carefully brought to light my one best dress of navy-blue cloth. It was quite perfect, even to the creamy lace in neck and sleeves.

How pleasant it was to go to San Francisco just like a real young lady, for what could be more grown up than to travel alone?

"It was very simple, after all, and mother was very foolish to worry about me," I concluded satisfactorily to myself.

The eventful morning came at last. Mother kissed me good-by at least a dozen times, begging me between each kiss to be very careful and not get lost. I saw tears in her sweet blue eyes, so I tried to look quite brave, and assured her I would be back safe and sound that evening a thousand times richer. Another kiss and I was gone.

When I took my seat in the cars I tried to look as unconscious as possible, and amused myself reading over for the twentieth time the directions I had received. Then I examined my traveling companions and finally buried myself in a book until the familiar suburbs of Oakland came in sight.

Oakland depot at last! To be sure, my heart quaked just for a moment when I found myself elbowed and jostled by so many strange people. I arrived in San Francisco quite safely, however, drove immediately to the bank, received my money, stopped only for a light lunch, and in another hour was seated comfortably in the return train home.

I felt quite proud of myself. I had actually come to San Francisco by myself—a whole eight hours' ride. How lovely it would be to tell the girls at school! I was sure they would treat me quite differently in future.

The cars rattled on faster and faster, keeping even time with my busy thoughts.

We presently arrived at a station more brilliantly lighted than the rest; between gongs, high-pitched voices, and shrill engine-whistles, I discovered it was supper. I did not dare risk leaving the train, so I peered out into the darkness; every one was flocking into the dining-room. How tempting the well-spread tables looked! It seemed so stingy to sit still reading a book, just as though I could ignore the fact that I was hungry in the face of traveling nearly eight hours.

The people opposite me began eating sandwiches and grapes.

How I longed for some, but I would soon be home, and mother, I knew, would order a dainty little supper for me.

"Will you have a sandwich, Miss?" said a kind voice at my side.

The gentleman opposite had actually taken pity on me.

"No, thank you," I replied, blushing profusely, "I'm going in to supper."

"You'd better hurry, as the train only stops 20 minutes," he answered, disposing of the discarded sandwich himself.

The deed was done. I gathered up my few parcels with desperation and remorse tugging at my heartstrings.

I did not enjoy my supper very much, although there were plenty of good things on the table, but amid so much confusion it was impossible to obtain anything. I contented myself with lukewarm tea and stale biscuits, leaving the fried chicken and steamed oysters for the luckier ones within reach.

"After all," thought I, "it was rather foolish of me to leave the cars, but then I could just follow the rest of the people and it would be all right."

Again I found myself seated in my old seat as safe as possible. In another hour I would be home. I laughed quite heartily at myself for being so nervous.

"Tickets, Miss!"

The conductor eyed my ticket quite carefully, turning it over and around several times, then handed it back, saying: "You're on the wrong train, Miss. This train goes to L——, arrives there to-morrow morning. You should not have changed cars at the last station."

"To-morrow morning! Changed cars!" I stammered, my heart almost ceasing to beat. "Why, I must get home to-night," I continued excitedly. "Please let me off; I will take the next train back."

"Impossible, Miss," answered the conductor. "You're on the express, and we only stop at M—— to-night. You might stay there at the Goth house and take the first train back to S—— in the morning," he concluded, moving on.

M——, the very name made me tremble. The roughest town on the road. *I* stay there all night, alone in a strange hotel.

Impossible. The very thought was ridiculous. All kinds of mad ideas danced through my brain. I would walk back, I would.

"M——!" screamed the heartless conductor.

My tears fell faster than ever, but I stepped on the platform, and was confronted by a fierce-looking man, who threw the full light of a lantern on my tear-stained face, at the same time calling out, "This way to the Goth house." Yes, that was the name the conductor had given me, so I followed my guide. We walked along a dark, narrow street until I became quite nervous.

This was a strange way of arriving at a hotel. In my limited experience I had always been driven up with something like style.

Did this man, aware that I carried money, mean to murder me?

I had quite decided to run away from him, when we arrived at a rather pretentious house, lit up with several coal-oil lamps, and over the door I spied "Goth house," in large gilt letters.

I absolved my guide from any dishonest intentions, and walked into the office feeling very timid.

At least 50 rough-looking men were smoking, drinking and chatting.

On my entrance their voices ceased, all eyes were turned on me; some boldly, some indifferently, but all curiously.

What nest of murderers had I fallen into?

By the time I had reached the desk, you might have heard a pin drop.

"I would like a room, please," I commenced nervously. "I took the wrong train at ——."

"Give this lady room 88," interrupted the clerk.

Why was he so imprudent as to scream the number out so loud with all those horrid men staring at me? I wondered if they ever saw a young lady before. I felt my fate was decided now. I should be robbed and murdered that night, thanks to the imprudence of this reckless clerk.

I followed the boy upstairs, wound through numberless passages, until we arrived at a small room at the farthest end of the darkest hall. What a grand place for a murder, thought I, shuddering.

"Here's your room, Miss," said the boy, presenting me with the remains of a wasted candle.

Bang went the door, and I was alone. First I viewed the premises. The room was very small, with one window, but it was entirely too high to be of any service. I next spied a transom, which made me feel very uneasy as I recalled the tale told me by a friend, of her uncle who had been chloroformed, then robbed, by means of a transom.

I was growing so nervous I could hear my heart beat against my ribs. My last and worst discovery was that my room connected with another by a single thin door.

Now was it not most probable that one of those savages downstairs would engage this adjoining room and in the middle of the night rob and perhaps murder me?

I might scream forever in this far-off corner.

Feeling at least convinced there were no trap-doors, etc., I settled myself as comfortable as possible bolt upright in a chair, with the bag containing my precious treasure clutched tight in my hand.

I had no intention of even shutting my eyes for a moment, but I soon agreed with the disciple, "the spirit is willing but the flesh is weak," for I was suddenly awakened by subdued voices talking in the hall; soon the voices and accompanying footsteps grew nearer, until finally the door of my connecting room was opened and some one lit a sickly light.

The last moment had come, then! I *was* to be robbed. I thought of my poor darling mother, alone and ill; it seemed as though my heart would break. How could she live without me?

Who would break the news that I was murdered? Horrible thought! I felt so miserable that I was quite resigned to die.

The occupant of the next room was opening his window, I suppose to see if it was convenient to enter my room by that means.

I listened attentively. Now he was trying the connecting door. My heart gave slow, painful throbs, my teeth chattered miserably, for my last ray of hope had fled.

Suddenly I heard a low, murmuring sound as though the robber was enraged.

What could he be doing! I stole cautiously from my chair and crept to the door.

If he was sharpening up his knives and razors to slaughter me, I would at least be brave enough to make one attempt to escape.

The murmuring became louder, more savage.

With one grand, final effort, I summoned up my remaining courage, knelt cautiously at the keyhole, and peeped in.

There knelt my robber, my murderer, his hands clasped, his eyes upturned to heaven in deep and earnest prayer, as unconscious of me as though I were out of existence.

I think I never saw a more beautiful or honest face.

My overstrung nerves had been tried, so I burst into hysterical sobs.

Let those mock at prayer who will! They may call it weak-minded and ignorant; all I know is that my fears vanished like vapor in the morning sun. I wasted no more time in chairs that night, but jumped hastily into bed and slept as happily as though my mother's arms held me fast.

I did not awake until the sun shone straight in my eyes.

A few hours more I was clasped to my mother's anxious heart, and between many tears I told my adventure.

I will confess something to you I never told her.

I think I have ever since been hopelessly in love with my handsome robber friend.

Alameda.

DOMESTIC ECONOMY.

A Permanent Meringue.

EDITORS PRESS:—Seeing in your paper a request for a meringue that will not fall, I am glad to have the opportunity to give some one the benefit of my experience.

After beating your eggs until the dish may be turned upside down without spilling its contents, beat in your *granulated* sugar, a spoonful at a time. Allow, say seven minutes of beating after each spoonful, or until the sugar is all dissolved—the longer the better. Make it as sweet as desired, and spread upon your pie. Some do not like it very sweet. I do. Use your own judgment. When you have it smooth on the pie, sift powdered sugar over the top lightly; this forms a crust when the meringue is baked, and excludes the air from the egg. Meringue made in this way will keep stiff several days. It never becomes leathery. Be careful not to get too much sugar on the top. A scarcely perceptible crust is most desirable.

MINNIE LYONS.

Sacramento.

WAFFLES.—One pint flour, 1 teaspoonful baking-powder, one-half teaspoonful salt, 3 eggs, 1¼ cups milk, 1 tablespoonful butter, melted; mix in the order given. Separate the eggs, beat both whites and yolks and add the whites to the other ingredients at the last moment after beating to a stiff froth. The yolks are mixed with the milk and salt, and then added to the flour and baking-powder. Waffles must be crisp or they are not nice The secret of having them crisp lies in putting in the butter at the last and having it very hot. Have the waffle-iron very hot, and butter thoroughly so the waffles will not stick. In opening the waffle-iron, always open back, over the stove. New irons will always stick. They must first be cleaned by boiling in a kettle, with cornmeal or potato parings. Then scrub thoroughly, grease, and let them stand for a few days. Another thorough washing will probably make them smooth.

Sauce for above.—Some like butter and syrup on the waffles; but a good sauce may be made of one cup sugar and one-fourth cup water, boiled together for a few minutes, to which is added juice of half a lemon and a teaspoonful of butter.

GINGER SNAPS.—Mix one pound of flour and three quarters of a pound of white sugar. Rub into it half a pound of butter, two eggs well beaten and an ounce of ginger ground fine. Beat all well together, roll out the dough to the third of an inch thick, cut out the cakes and bake them. These are far superior to ordinary ginger snaps.

SCALLOPED ONIONS.—Boil, and if large, cut into quarters. Put into a shallow dish, cover with white sauce and buttered crumbs, and bake until the onions are brown.

IMITATION APPLE-PIE.—Four teacupfuls of water, six soda crackers, two cups of sugar, juice of two lemons and rind of one.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, May 21, 1887.

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The Week.

As we anticipated in our last issue, the early reports of frost injuries have been proven to have been greatly exaggerated. Even in districts where the harm was acknowledged to be greatest, later observations show fewer suffering vines, or less injury to vineyards which were quite hopelessly spoken of. Still there remains enough of the visitation to cause it to be remembered as unwelcome. Aside from vines, garden stuff suffered most and summer forage crops were in a few places cut back to death. This will require a replanting of corn and other tender growths in individual cases, and this is the more unfortunate as moisture supplies in the soil are not excessive. There are, however, some instances of considerable loss, for one correspondent writes: "We have lost about everything in the ground but the stones—grapes, fruit, vegetables—a clean sweep." To such there is nothing to say except words of sympathy and encouragement; that the ills but seldom come, and will soon be forgotten.

Showers have lurked about the State during the week, but wide apart and usually little in weight. Haying progresses and has been but little interfered with. Our reports are of light or moderate cuts generally. The grain is late this year.

What Judge Reagan Thinks.

We are glad that the Interstate Commerce Commission had the courtesy to invite the opinion of Senator Reagan concerning their contemplated indefinite suspension of the fourth clause of the new Interstate law. Of course, as the father of the measure and its careful trainer until it reached its majority on its enactment by Congress, Senator Reagan was properly entitled to a hearing when so important action as suspending one of its leading clauses was imminent. As might be expected, we find Mr. Reagan taking general grounds against the suspension, claiming that needed relief is already provided for without such radical action, and that to suspend the fourth section would devitalize the law in many important respects. It is announced by telegraph that Mr. Reagan will make public this week quite a voluminous reply to the request for his views. Concerning the suspension of the clause in a general way, he will say:

In deference to the opinion of others, we inserted a provision in this section, that upon the application to the Commission such common carrier may, in special cases, after investigation by the Commission, be authorized to charge less for the transportation of passengers and property. * * * It was never suggested in the Conference Committee where this section received its final shape, or elsewhere, that I know of, that under this language the Commission might suspend the section and adopt, instead, the exception for the rule, but it was inserted that in case it should turn out that the rule might work hardships in special cases, the Commission could, under this exception, give relief against such hardships, and it was under this idea that the committee inserted the provision and exception to that rule, simply to enable the Commission to relieve injustice in special cases if it could be made to appear that injustice was being caused by the enforcement of the rule.

This is a very important interpretation. In the case of the Pacific Coast interests it would seem that needed relief was quite possible, as Judge Reagan states in his last sentence as quoted above. Of course the strangling of important industries would be certainly an "act of injustice," and such was not intended by the framers of the law. Again, in a still more specific manner, Judge Reagan states that the words "under substantially similar circumstances and conditions," which some companies have been endeavoring to show enables them to make cheaper rates for large shipments than for small, were not intended to carry such significance; they were put in solely to enable the railroad to give special facilities for the expeditious transportation of fruit and other perishable goods in order to prevent loss or injury. Here, according to the author of the law, we have then provision for the relief needed by our fruit-men for example; the companies could, under the law, arrange both cost and speed so as to prevent the ruin of an industry, but rather to so arrange them as to promote it.

Of course the main provisions of the measure and the principles of regulation which underlie them, are things which we have long contended for and we are disposed to favor any means of securing them without injustice to any one. The measure must be based upon justice both to the companies and to their patrons, or it cannot stand. It is to right wrongs, not to institute new wrongs, and such, we trust, it will be clearly seen to do.

In the matter of water carriage of produce, Judge Reagan in his reply, alluded to above, has the following forcible utterance:

It would be a criminal disregard of the rights of the people for Congress or the Commission to so manage as to deprive the people of the cheaper transportation afforded by water-ways. This can only be done by allowing the railways to carry freights below the cost of transportation, thereby causing unjust exactions on way freights to make up loss of revenue by the roads and to pay for depriving the people of cheap water transportation. No Government on earth would dare to pass a law to prevent the carriage of its commerce on natural water-ways, and yet that is what, in substance, your Commission is asked to do by the railroad companies.

It is a suspicion of such a policy on the part of our overland lines which has given the idea of railroad regulation much strength on this coast, and certainly the maintenance of water traffic is of the utmost importance to the prosperity of this coast. Judge Reagan closes his appeal for the preservation of the new law in these words:

I have tried to show, first, that the Commission has no power to suspend the law of Congress; and, second, if they had, as a matter of discretion, the power to do so, it would be a great wrong and injury to the public, and to a large extent it would destroy the purpose of Congress to protect the people against wrong and oppression. Ever since the passage of this law the railroad corporations have, through their officers, agents, lawyers and hired newspapers, been engaged in a most extraordinary conspiracy to secure the nullification of one at least of its most important provisions. Millions of people with interests involved of thousands of millions of dollars, and with political interests far greater than any money interests at stake, with bated breath are looking earnestly and anxiously to see whether the Commission is to be misled and their rights and interests sacrificed, or whether the law is to be sustained and their pecuniary and political rights preserved.

Eastern Fruit Shipments.

As the fruit crop is hurrying toward maturity, the subject of greatest import is the Eastern outlet, both for its own sake and for the relief which free shipments will bring to local markets. We have taken special pains to gather what news we can up to the hour of our going to press on Wednesday evening.

From day to day there has been an outlook for a final settlement of the rates by the traffic managers' convention which is still in session in Chicago. Various rumors have reached this coast, most of them of an encouraging character, but Wednesday evening's telegram from Chicago says, "no rate on fruits has yet been made." Previous to the Chicago meeting, as we announced recently, the following rates were offered by the Southern Pacific Company: By passenger train to Chicago, $500 per car; by slow freight train to Chicago, $250 per car; special train rate of 10 cars to Chicago, $400 per car. The "special train" is guaranteed to run on passenger time. This last rate includes all local freight charges on the S. P. system. For example, Vacaville shippers will pay a local charge to Elmira, but none from Elmira to Sacramento; Santa Clara would pay a local to San Jose, but $400 would cover all the balance. There are some good points in this schedule, but it is expected that the Chicago meeting will consent to something better.

From H. A. Fairbank, secretary of the California Fruit Union, we learn that progress is being made by Mr. Blowers in establishing local agencies at the East. He has selected agents as follows: Kansas City, M. Tanner; St. Louis, Gerber & Signaigo; Minneapolis, Pratt, Gilman, & Francis; St. Paul, B. Presley & Co.; Chicago, Porter Bros. & Co. More are to be appointed. It is not expected to have agents in Boston, New York, Philadelphia or Baltimore, but if through-car shipments can be arranged to those points, the fruit will be sold at auction there to the highest bidders.

There are some new provisions in the arrangements made with agents this year. Every local agent appointed by the Union is required to give bonds, thus not only guarding shippers against such losses as might occur from sending produce to irresponsible parties, but also securing them against the casualties to which the most honorable consignees are liable. In glancing through one of the contracts to be used this season, the following changes are to be noticed: That the remittances, which are to be made promptly, shall be accompanied by an itemized account of sales showing *in detail* in what manner and for what prices the shipments have been sold.

The agent is bound, within 24 hours of the receipt of each shipment, to notify by mail the person for whose benefit it was made of the receipt thereof, its condition, the prices at which like products are then selling, and, if any portion thereof has been sold, the portion so sold and the prices realized therefrom and the portion on hand.

The local agents at the East are precluded, so long as their contract remains in force, from handling any California fruits except as shipped through the Union; and are also responsible for the amount of all sales, taking their own risks regarding collections. Provisions are also made for selling by auction, and for terminating the contracts at the option of the Union.

Eastern shipments of cherries and apricots are now beginning.

Southern California.

NUMBER 2.

[Editorial Correspondence.]

There is no mistaking the fact that California, as an entire State, is just entering upon a new departure in its development and growth. Its advance from mining stimulus ceased many years ago, since which time, until within the past two years, business and population has been nearly at a standstill, or at best of very moderate growth. Mining has not failed to be an important industry, but it has ceased to draw, and agriculture has taken the lead. Our agricultural productions have gone far up beyond the hundred millions, and more than quintupled the output of gold and silver. But until quite recently wheat has formed almost the only product of the field which has attracted much attention abroad.

In process of time, however, the wheat market became more or less demoralized. Competition from India and South America began to be feared and felt. There was a noted falling off in the acreage yield. Extensive fields, costly machinery and large capital were required to reach success. Many farmers of small means were compelled, year after year, to mortgage their crops in advance to provide a living for their families and seed and cultivation for their fields. Dry seasons were sure to come once in three or four years, and all the little gains of the intervening years were swept away by a single year of drouth. Then again the large holdings of land-owners, their disinclination to divide up their holdings into small farms such as might be within the reach of newcomers with small means, and other untoward circumstances, had a tendency to discourage immigration. As a sequence, agriculture followed the course of mining, and in turn failed to draw.

A New Industrial Era.

But American energy can never be kept down so long as there is coal or water to turn a wheel, or an acre of ground untilled. California had practically reached and passed its climax in the production of precious metals and wheat, and there was need that some new and more profitable branch of industry should be sought out to give employment to idle hands already here and operate as an inducement for the tide of immigration to once more set in this direction. A few far-seeing people had in the meantime been giving their attention to fruit-growing as a more profitable pursuit than wheat-raising. Fine peaches and pears, apricots and plums, etc., began to make their appearance in the market in greater profusion than before, and, above all, the viticulturists began to make a fine showing of both fruit and wine. While this branch of fruit-growing was gradually being developed in the northern and central portions of the State, new life was also infused into the hitherto slow-going population of Southern California, in the line of producing citrus fruits. It was soon found that Southern California was capable of producing the finest oranges, lemons and olives in the world. Hundreds of thousands of orange trees were planted and the home market was soon overstocked.

Just at this time the overland railroad came to the assistance of the fruit-grower, and special rates were established under which fruits of every kind could be placed upon the Eastern market at a profit to the grower. A new and vast field of enterprise and industry now dawned upon California, which in time will far eclipse the product of the precious metals and wheat combined. Fruit-growing is, moreover, an industry in which the small grower can quite readily cope with his wealthier and more extensive producing neighbor. It, moreover, possesses a peculiar charm and interest, such as scarcely any other industry can equal. It will draw—it will attract immigration where scarcely anything else will. It is to this new feature in our industries that the California of to-day owes the boom which is now sweeping over the entire State from north to south, and which has created an excitement and feverish desire for emigration thither from the East, such as has not been seen before since the great gold excitement of '49 and '50. There is now a general waking up all over California. The press is everywhere writing up the special advantages of their several localities, and the people are talking. Immigrants and visitors

are pouring into the State by thousands. Our hotels are full and often to overflowing. More hotels have been built or have been put in progress of construction the past year than during any previous three years, and still there is call for more. All this means immense gains in prosperity, wealth, and population to the State. California seems to be fully alive to the great advantages of her position, and to the wealth of her resources. And yet, intelligent tourists from the East have repeatedly assured the writer, during the last few weeks, that we, as a people, do not even yet fully appreciate our opportunities, or realize the extent of the excitement which exists at the East in regard to the movement in this direction.

The City of Los Angeles.

This new influx into the Golden State made its first appearance at Los Angeles. It was there that the boom commenced, and probably no single locality in the State has been so much benefited. Nowhere else has there been such an advance in the price of land; nowhere else has there been such an increase in population or in growth of city or town. The population of Los Angeles in 1880 was about 10,000. Now in a little over seven years it has increased to over 40,000, and the increase is still going on as rapidly as at any previous time. How long this boom is to continue no one can tell. Certain it is, there is no present evidence of its cessation. There are many conditions that favor this rapid growth, all of which indicate permanent prosperity. Its railroad connections, already extensive, are being constantly augmented. One continental road has its terminus there, and a second makes it one of its chief terminal points. Short lines of rails are being pushed out in every direction, to bring in the wealth and business of the surrounding valleys. It will soon be in direct communication with San Diego, by a line along the coast. The Government is spending vast sums of money to perfect one of its harbors—San Pedro; while private enterprise is equally active and energetic in actually creating another at Ballona. The constant rush and haste, the coming and going of trains and making them up at the Southern Pacific railway depot, is something quite remarkable, and gives evidence of the transaction of a large amount of business. There is constant and direct steamship connection between San Pedro, the principal port of Los Angeles, and the entire Pacific Coast, and it is confidently expected that steam communication will soon be established with other countries. One of the representative men of Los Angeles, Walter T. Maxwell, will leave for Europe June 4th, to purchase a steel steamer with a capacity of 1800 tons, to meet the growing demand of Los Angeles for coal. Although crude petroleum has supplanted coal in all manufactures and for all steam-making there, the coal trade of the section, mainly to supply the interior demand, has become so enormous that it cannot be handled with the present facilities. The new steamer will ply from Port Moody, B. C., to Southern California ports. Huge coal-bunkers will be erected at San Pedro, Port Ballona and San Diego. The draft of the steamer will be only 15 feet, which will save lighterage at San Pedro, and will drop coal at $2 per ton here. After discharging coal here she will carry cargoes of fruit and other Southern California products to Port Moody for shipment over the Canadian Pacific.

The city has recently spread out enormously over all the surrounding country, a fact which has called into existence a most extensive system of street railways. Two cable roads are already in operation, and one electric motor, while ordinary one and two-horse cars are seen in every direction through the city and its environs. Probably no city in the Union, of its size, has such a thorough and well-equipped system of street railroads. In regard to

The Architectural Beauties of the City,

And the rapid advance which it is making in everything which pertains to the permanent growth of a large city, we have neither time nor space to do the subject justice. That work speaks for itself. Every work of that character, either in progress or being projected, is of a substantial character and is being planned and carried out with the best architectural and engineering skill. The environs for miles in every direction around the city, and especially its picturesque hights, are being crowded with large and elegant residences and villas, which bespeak both the wealth and taste of the owners.

With the advancement of the city of Los Angeles, the suburban towns and the rural districts in every direction are marching onward in growth and prosperity. Already some of the whilom towns and villages are taking on the semblance of cities. The wave of Eastern immigration and tourist travel appears to be constantly on the increase, and we are assured by those now here that the excitement at the East in regard to California is constantly increasing, and will continue to increase into the indefinite future.

Institutions of Learning.

Los Angeles is fast becoming noted for its institutions of learning. A branch of the State Normal School was established here in 1881, by an appropriation of $50,000, to which was added five acres of land, by the city, on a beautiful site worth fully $20,000, to which $10,000 have already been added in beautifying the grounds.

The University of Southern California, also located here, gives a full college course in all the leading departments of study, including law, medicine and theology. This university has four associate colleges, as follows: Chaffey College of Agriculture at Ontario; Maclay Theological Institute at San Fernando; College of Arts, Literature and Science at Escondido, San Diego county; and one is to be established in the form of a technological and industrial school at Colton.

There is also a college for young ladies established here, under the supervision of Rev. D. W. Hanna, one of the most gifted and able persons who could have charge of such an institution. Their commencement exercises for the beginning of the term 1886–7 represented a higher order of attainment than is usual among this class of colleges. They have a new and enlarged building, with modern improvements in the class and lecture-rooms, dormitories, gymnasium, etc. An uncommon degree of success no doubt awaits the future of this institution.

The public schools of the county are under a most excellent management. The total number of children under 17, according to the school census of 1886, was 26,653. Total enrollment, 12,616. Total valuation of school property, $545,509. There are 11 frame schoolhouses and 4 brick.

DESTITUTION IN TEXAS.—Within the past 40 days copious rainfalls have been reported, at three different dates, from those Texan districts which had been suffering from drought so many months. Although the stress of want had driven some of the inhabitants to giving up their homes and fleeing to the Pacific Coast, it is hoped that better times are dawning for the regions so long parched and afflicted. But the effects of such a protracted water-famine are not to be overcome in a hurry, and a recent dispatch from Austin says the Governor has just received a petition from 70 officials of Medina county, asking for a special session of the Legislature to provide for the suffering people in the central and southern portions of the State. The great mass of people are represented as having no money, no credit and no crop prospects. Many are living upon half rations of corn and tank-water, and in some precincts men, women and children are already in a famishing condition and will soon starve unless help is furnished.

FOR THE STATE FAIR.—The *Record-Union* says that George W. Hancock, of the State Board of Agriculture, is visiting various counties in the central portion of the State, urging competition at the next State Fair in the matter of county exhibits, for which premiums to the amount of $2500 have been offered.

AGRICULTURAL SHOW IN RUSSIA.—The U. S. Consul-General at St. Petersburg has informed the State Department that an agricultural exhibition will be held at Khaskoff, Russia, next October. Americans can compete in exhibits of horses, cattle, swine, poultry and agricultural implements and machinery.

THE old English mill, near Reno—put up many years ago, when the mining excitement in Washoe was at high tide—has just been sold, with all its belongings, and will be turned into a wool-scouring establishment. It seems probable, too, that a woolen-mill will shortly be erected on the premises.

Interior View of a Rose-House.

The growth of roses for sale as cut flowers is increasing in the city and in suburban towns. We have no such market as is found in the great Eastern cities. This is owing, first, to our small number of flower-buyers we have as compared with the East; second, to the ease and abundance with which the choicest blooms are produced here by amateurs, the result being that most of our citizens grow themselves their own decorative material. Notwithstanding these drawbacks to the commercial aspect of our flower industry, it is making due progress, and we have quite a number of florists' shops, and the demand upon their stock is making a market for a certain amount of material beyond that which they can grow themselves. It seems to us that one who can grow good flowers, and is content to begin in a small way and not run in debt for expensive buildings and accessories, may build up quite a satisfactory business in producing acceptable supplies for our florists.

We give on this page an engraving of a rose-house in Philadelphia which is devoted entirely to the growth of the new rose Puritan, which was illustrated in last week's RURAL, and the stock of which is now owned by the B. A. Elliot Co., of Pittsburg, Pa. We give the engraving especially to convey a hint of the way in which at least some prominent rose-growers construct their houses. It is, as seen, a very simple and inexpensive house; the grand conservatories are for the Government and for wealthy amateurs. The one who pursues flower-growing as an industry uses much simpler and cheaper construction and gets a house which is not so handsome, but is often much better suited to the demands of the plants.



INTERIOR OF ROSE HOUSE SHOWING PURITAN ROSE IN BLOOM.

Plant-houses in California may be even simpler and cheaper than at the East. We have no zero temperature to fight off; we have no freezing to disturb foundations nor snow-banks to contend with. The plant needs but little persuasion to make it believe that summer has come at any part of the year in California. We believe that even with the grand success of open-air floriculture in California, the flower-lover will be repaid for the little expense and effort which are required for conservatory work in this State. Then, too, as we have said, if the grower can easily get the flowers to the city in good condition, there is a chance of a moderate increase of pocket money as the reward for the time and outlay.

AGRICULTURAL EDUCATION. — Efforts for special education in agriculture are gaining ground in public esteem all over the world. We notice in a London exchange that the Lords of the Committee of Council on Education have directed that the title of the office of Lecturer in Agriculture held by Prof. Wrightson in the Normal School of Science and Royal School of Mines should be altered to that of Professor in Agriculture. This happily raises agriculture in respect of status among the other branches of education conducted under the Committee of Council on Education.

BUTTER, CHEESE AND MEATS GONE ABROAD. —The Bureau of Statistics states the total value of beef and pork products exported from the United States, for the 6 months ended April 30, 1887, at $41,342,856; in 1886, $37,841,791. Dairy products, for the 12 months ended April 30, 1887, $9,057,284; in 1886, $9,939,166. Cattle, for the 10 months ended April 30, 1887, $8,217,807; in 1886, $8,949,986. Hogs, for the 10 months ended April 30, 1887, $418,877; in 1886, $499,460.

THE VINEYARD.

Wine Colors, and Color-Wines.

At the late Viticultural Convention I exhibited a table of measurements of the color of a number of wines of the vintage of 1886, in order to emphasize the fact that California can produce wines with abundance of color, and that with proper attention to this point in the selection and proportioning of the varieties constituting a vineyard, the dealer need not even be exposed to the temptation of using artificial colors, unless for the purpose of "stretching" by the addition of water, etc. This table is reproduced below, with some additions which add weight to the evidence, and also allow of some generalizations regarding the depth and permanence of the tints belonging to the various classes of wine grapes, and the influence of locality and soil.

The "color at pressing" (column 1) can of course be given only for the wines made at the viticultural laboratory. Column 2 gives the color-intensities as observed on or about March 1st, in a number of wines sent in for examination, as well as in a number particularly of the deeper-tinted wines made at the viticultural laboratory. Column 3 gives the decrease of color that has occurred between the time of pressing and March 1st, *in per cents of the color originally observed;* while column 4 indicates the tint or shade of color last observed.

TABLE SHOWING INTENSITIES, SHADES AND PERMANENCE OF WINE COLORS.

No.	Variety.	Grower.	Place of Production.	1 Color at Pressing.	2 Color March 1.	3 Percent of Loss.	4 Present Tint.
475	*Malbeck	J. T. Doyle (¶U. P.)	Cupertino	38.1	27.6	27.6	1st p. r.
645	Malbeck	J. T. Doyle	Cupertino	....	25.5	....	3d-4th p. r.
619	Malbeck	C. C. McIver	Mission San Jose	....	36.0	....	3d p.r.
552	*Cabernet Franc	J. T. Doyle (U. P.)	Cupertino	34.8	23.5	32.5	5th p. r.
593	Cabernet Franc	J. T. Doyle	Cupertino	....	35.0	....	2d p. r.
616	Cabernet Franc	C. C. McIver	Mission San Jose	....	50.0	....	3d p. r.
599	Cab. Sauvignon	J. T. Doyle	Cupertino	....	38.8	....	1st p. r.
607	Cab. Sauvignon	J. B. J. Portal	San Jose	....	32.0	....	3d p. r.
551	*Gros Verdot	J. T. Doyle (U. P.)	Cupertino	85.3	57.0	33.2	2d p. r.
614	Verdot	C. C. McIver	Mission San Jose	....	57.1	....	2d p. r.
534	*Tannat	Wm. Pfeffer	Gubserville	51.4	40.8	20.6	3d p. r.
617	Merlot	C. C. McIver	Mission San Jose	....	50.0	....	4th p. r.
579	Merlot	J. Gallegos	Mission San Jose	....	31.5	....	5th p. r.
516	*Grossblaue	J. T. Doyle (U. P.)	Cupertino	40.8	30.0	26.4	2d p. r.
545	*Grossblaue	J. T. Doyle (U. P.)	Cupertino	57.1	26.0	53.3	2d p. r.
483	*Beclan	J. Gallegos	Mission San Jose	41.2	36.4	11.6	1st p. r.
613	Beclan	C. C. McIver	Mission San Jose	....	36.3	....	3d p. r.
511	*Carignane	A. Salazar	Mission San Jose	30.3	30.3	....	1st p. r.
591	Carignane	J. T. Doyle	Cupertino	....	35.6	....	2d p. r.
...	§Zinfandel	J. Gallegos	Mission San Jose	....	31.6	....	4th p. r.
...	†Zinfandel	C. C. McIver	Mission San Jose	....	23.5	....	5th p. r.
529	*Zinfandel	H. P. Gregory	Soquel	48.8	27.7	43.2	2d p. r.
...	‡Zinfandel			10.2	8.3	19.0	3d p. r.
507	*Teinturier	J. T. Doyle (U. P.)	Cupertino	54.0	40.0	26.0	2d p. r.
542	*Teinturier	D. C. Feely	Patchen	75.2	67.7	10.0	2d p. r.
492	*Gamay Teinturier	J. T. Doyle (U. P.)	Cupertino	44.4	44.4	0.0	2d p. r.
498	*Sirah	J. T. Doyle (U. P.)	Cupertino	46.5	27.6	40.6	1st p. r.
615	Sirah	C. C. McIver	Mission San Jose	....	77.0	....	1st p. r.
479	*Mondeuse	J. Gallegos	Mission San Jose	31.7	27.3	14.0	2d p. r.
618	Mondeuse	C. C. McIver	Mission San Jose	....	80.0	....	2d p. r.
620	Petit Bouschet	C. C. McIver	Mission San Jose	....	154.0	....	1st 2d p. r.
524	*Crabb's Black Burgundy	J. T. Doyle (U. P.)	Cupertino	45.4	27.3	39.8	2d p. r.
588	Lenoir	H. B. Wagoner	Livermore	66.6	37.0	45.9	orange-red
640	Lenoir	Fresno Vineyard Co.	Fresno	....	30.8	....	red
533	*Pfeffer's Cabernet (Robin Noir)	Wm. Pfeffer	Gubserville	12.0	11.2	7.0	5th red
527	*Pfeffer's Cabernet	C. Weller	Warm Springs	16.3	7.1	56.4	3d red
541	*Burgundy	J. S. Fowler	Patchen	10.5	8.9	15.2	3d red
496	*Burgundy (Chauche Noir?)	J. Gallegos	Mission San Jose	10.2	7.8	24.0	3d red
470	*Petit Pinot?	H. M. La Rue & S'ns	Davisville	5.3	(?)	(?)	orange-red
519	*Pinot St. George	J. T. Doyle (U. P.)	Cupertino	12.6	8.2	35.0	3d red
544	*Meunier	J. T. Doyle (U. P.)	Cupertino	13.6	13.3	2.0	3d red

*Wines made at the viticultural laboratory; §average of three analyses; †average of four analyses; ‡average of wines from grapes from Vina, Sacramento, Davisville and Patchen; p. r. means purple red; ¶University Experimental Plot.

In commenting upon the above figures it may be proper to restate their basis, as explained in the Report for 1886, pages 26 and 133. The standard of comparison is the French color-scale devised by Chevreul and adopted by the Government as well as by manufacturers in France. A portion of this color-scale, represented by 10 little silk discs, and including the tints of most red wines, forms the basis of comparison, the colors running from simple "purple red" through five numbered shades of the same to "red," and from this through numbered shades toward orange-red. The comparison is made by measuring the thickness of the column of wine that will make its color and intensity, viewed toward a white silk disc, exactly equal to that of one of the type discs; which thickness will, of course, be inversely proportional to the intensity of the wine's own color. A convenient numerical expression of these ratios is obtained by assuming the color-intensity corresponding to a wine-layer *fourtenths of a millimeter*, or the sixty-second part of an inch in thickness, as 100. On such a scale the colors of all ordinary wines can be readily expressed in percentages falling below 100; while a very few special color-wines will rise above, so that their colors have to be given in figures over 100, expressive of their extraordinary intensity.

It should be farther understood that on such a scale, the color-intensities of deep-tinted commercial wines will range between 20 and 30; ordinary red wines (*e. g.*, most Zinfandels) between 10 and 20; while any wine below 10 will be classed as "light red."

Taking 20 as a satisfactory figure for clarets intended to be used as table wines, and still showing a handsome tint when diluted with water, it will be seen that column 2 shows quite a number possessing many times that amount of color, while all but the Burgundy group range above 20, and could therefore be used to bring up the color of lighter, valley-grown wines, by blending. In nearly all these cases, the analysis as well as the tasting test shows that these same wines will also serve to complement the deficiencies of the last-named class of wines in other respects, especially as regards tannin and bouquet.

The most prominent color-wines shown in the table are, in the order of their intensity, the Petit Bouschet, Mondeuse, Sirah, Verdot, Merlot, and Cabernet Franc. Contrary to the general impression, the two samples of *Lenoir* do not show any extraordinary merit in this respect. The Livermore sample, it is true, gave quite a high reading at pressing, but lost nearly half of its color between that time and March 1st. The Fresno sample gave even less at the latter date. At the same time it will be noted that the tint of the Lenoir is altogether different from that of the Bordeaux varieties. At first a full red, it rapidly fades toward the orange-red as it deposits its color, and at this time the latter is almost identical with that of unadulterated "cherry-juice." But if the Lenoir possesses no special merit in the way of either kind or quality of color, it is difficult to see on what ground it should be preferred to a dozen other varieties here enumerated that give as much or more color of the right tint, fading much less, and unassociated with the peculiar flavor that always clashes more or less with the Bordeaux type at least; while it is not a heavier bearer, to say the least, than several of the noble Bordeaux vines have now proved to be.

The latter, it will be noted, all fall within the "purple-red" shades of color, which is also shared by the Teinturiers, as well as by the Jura and Piedmontese grapes; and of course this, and not a red or orange-red, is what is looked for in wines representing these types. Hence the Lenoir has not a proper place among them, upon that ground alone.

As shown on Table 6 of the Viticultural Report for 1886, the Pinots proper, including the Meunier, all run into shades of red; and the intensity of their tints is quite low relatively to the Bordeaux varieties, being somewhere between 10 and 15, which is only about one-third of the general average of the varieties shown in the above table. Among the latter, the "Crabb's Burgundy" holds quite a high place, both for the intensity and permanence of its *purple-red* tint; and this, with its habits in fruiting, may be considered as definitively removing it from among the group of "Burgundies," even in the widest signification of that much-abused term. On the other hand, the peculiar tint of the Robin Noir or "Pfeffer's Cabernet," as well as its relatively low intensity, would assign it a place near the Pinots, and shows that it needs to be blended with some one of the purple-red varieties in order to make its wine take a place among the Bordeaux type which it otherwise resembles.

The influence of locality upon the intensity of tints is very strikingly exemplified in a number of instances, but more particularly in the case of the wines from Doyle's level upland vineyard at Cupertino, and the same from McIver's hill land at Mission San Jose; also between the latter and Gallegos' level upland at the same place. In the cases of the Malbeck and Cabernet Franc, and especially in that of the Sirah, the color is markedly higher in McIver's wines than in Doyle's; but in the Verdot the color is the same from both places. As between Gallegos and McIver, the latter's Mondeuse exceeds Gallegos' nearly one to three, and in the case of the Merlot, five to three; but the Beclan from both is identical, and Gallegos' Zinfandel exceeds McIver's in color by eight points, on an average of four and three samples respectively. It thus appears that local superiority in color does not necessarily hold good for *all* varieties, however great the difference may be in some of them.

The most intensely colored wine of all thus far observed is McIver's Petit Bouschet, which has in effect the appearance of red ink, and exceeds by 92.5 per cent the deepest tint otherwise noted at the same date. This wine can be diluted with six times its bulk of water and still retain a deeper tint than the majority of Zinfandel wines in the market; alongside of it, cherry juice dwindles into insignificance, and can only hold its own on the score of its 19 and odd per cent of untaxed alcohol. At the last measurement, made April 18, this wine still held 124 out of the 154 of color observed March 1st.

It does not, of course, follow that this grape will carry the same, or any similar proportion of color elsewhere. No other sample of its wine of the same vintage has been received, and consequently no direct comparison can be made; but the remnant of wine from Natoma grapes of 1884, recently measured, shows but 13.0 of color, and was noted at the time as somewhat disappointing expectations in this regard. It is obvious that with respect to color, as well as other qualities, different localities will need to be specially tested, in order to determine the varieties that will yield a satisfactory outcome.

But whatever may be the experience of a given locality, it is certain that with wines such as these and a number of others in the table, noted for their abundant bearing, there can be no excuse for the use of either cherry juice or aniline dyes, under pretense of catering to the public demand for color. With due care on the part of vineyard-owners, and fair offers for color-wines on the part of wine-blenders, there need be no lack of color in California wines.

Permanence of Color.— While column 2, above, shows at a glance the highest degree of color existing at the time of last reading, column 3 is also very instructive in showing the relative degree of *permanence* in the several varieties. Here the smaller figures, of course, show the greater degree of permanence; and among them we find the Gamay Teinturier with a zero to its credit—meaning that from the time of pressing (September 30th) to March 1st, or during five months, it had lost no appreciable amount of color; that color being, moreover, quite double that of the common run of deep-tinted wines. Doyle's Teinturier, which at first showed 10 points more than the Gamay, had, on March 1st, fallen 4.4 points below it, losing 26 per cent; while Feely's Teinturier, starting with 75, in falling to 67.7 had lost only 10.0 per cent.

It here seems that locality had materially influenced not only the original depth of tint in the same variety, but also its permanency; both may, however, have been somewhat influenced by different degrees of maturity. Yet, in the two samples of Grossblaue, No. 516, the earlier sample, gathered barely ripe, and showing only 40.8 of color against 57.1 of the more mature sample No. 545, has maintained its color so much better than the latter that on March 1st it stood four points above it, thus indicating that the gain in color by greater maturity is not always maintained.

The full record of observations on the colors of 47 red wines made from different varieties of grapes at the University laboratory in 1886, is reserved for future publication. It is very evident, however, from the facts here shown, that so long as the public demand for deep-tinted wines continues, the detailed study of the behavior of each variety in this respect in different localities, under different treatment, and especially in different combinations or blends, will remain a matter of considerable pecuniary interest to growers.

E. W. HILGARD.

Berkeley, May 12, 1887.

SULPHURING VINES.—We receive too late to print an eight-page publication by the State Board of Viticultural Commissioners entitled "*Oidium* and the Use of Sulphur." It is a full discussion of sulphuring vines by John H. Wheeler, Chief Executive Viticultural Officer, and should be read by all vine-growers. Send to the office of the Commission, 204 Montgomery street, San Francisco, for a copy. It will be mailed free to applicants.

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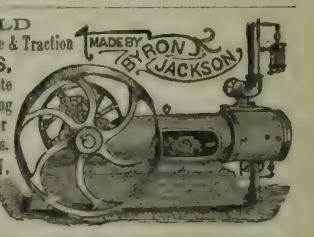
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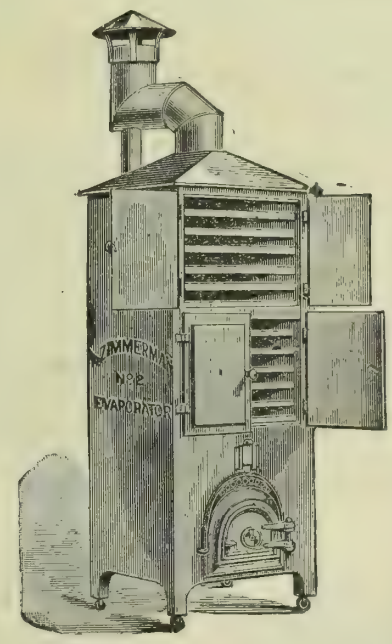
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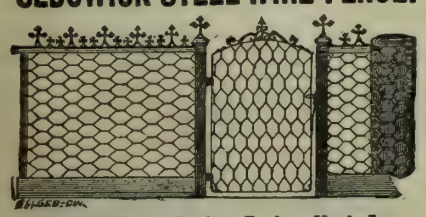
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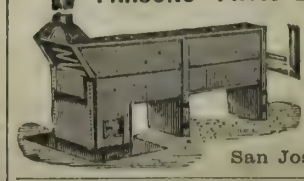
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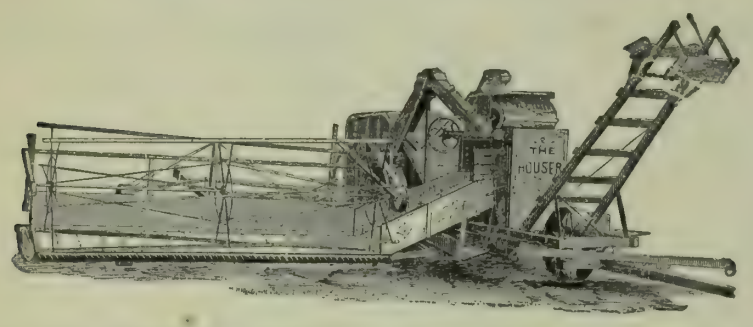
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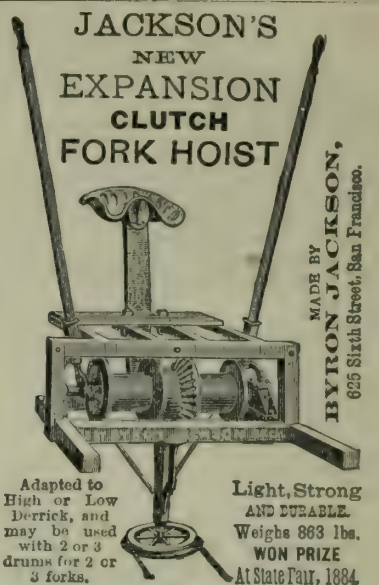
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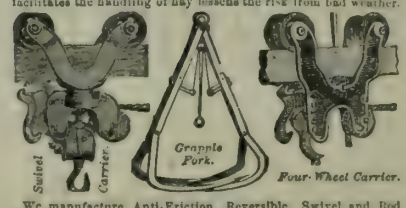
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FOR STACKING OUT IN FIELDS OR MOWING AWAY IN BARNS

The use of a good Hay Carrier and Fork a few hours in a catching time may save many times its cost. At such times, anything that facilitates the handling of hay lessens the risk from bad weather.



We manufacture Anti-Friction, Reversible, Swivel and Rod Hay Carriers, Harpoon and Grapple Horse Hay Forks, Pulleys, Floor Hooks, etc. Also the celebrated Halladay Pumping and Geared Wind Mills, Corn Shellers, Feed Mills, Stalk Cutters, Horse Powers, Jacks, Tanks, Pumps, etc. Send for catalogue and prices. Agents wanted in all unassigned territory.

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And others suffering from nervous debility, exhausting chronic diseases, premature decline of young or old are positively cured by Dr. Horne's famous **Electro Magnetic Belt.** Thousands in every state in the Union have been cured. Electricity instantly felt. Patented and sold 10 years. Whole family can wear same belt. **Electric Suspensories** free with middle belts. Avoid worthless imitations and bogus companies. **Electric Trusses for Rupture.** 700 cured in '85. Send stamp for pamphlet.

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If you want a good pair of Gloves, ask your merchant for our brand.

LEAK GLOVE MANUFACTURING CO.,
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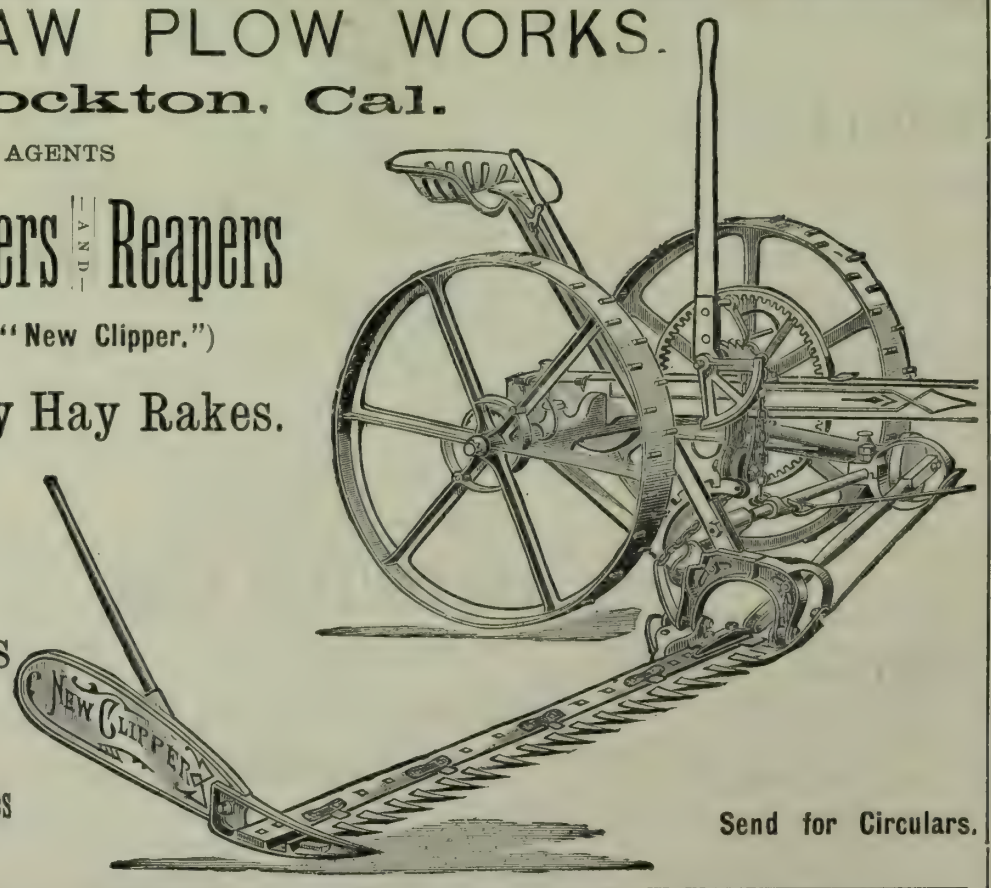
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Derricks and Nets

FINE STOCK OF

Wagons, Carriages, Buggies

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Only Perfect Body Battery ever invented. Gives an Electric Current with or WITHOUT ACIDS. ELECTRIC SUSPENSORY FREE with every Belt.

BEST MADE! Chronic Diseases of both SEXES Cured without Medicine Estab. 1875. Send for Free Pamphlet No. 2.

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$4500. A DESIRABLE HOME; BEAUtiful location; 1¼ miles from Healdsburg; fine road; contains 15 acres, 10 in cultivation; needs no irrigation; fine alluvial soil; balance uncleared, in willows; plenty of wood; 700 young fruit trees, some full bearing; 3 acres in alfalfa; small, common house; good barn; fine well of water; hedge in front and flower garden. Apply to NATHAN C CARNALL, 26 Montgomery street, room 1, San Francisco, Cal.

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SAN FRANCISCO, CAL.

75,000 TONS CAPACITY. 75,000
Storage at Lowest Rates.

CHAS. H. SINCLAIR, Supt.

Cal. Dry Dock Co., props Office, 318 Cal St. room 3.

HIRES IMPROVED ROOT BEER

25 Cents PACKAGE

Makes **Five Gallons** of a **delicious,** sparkling temperance beverage. **Strengthens** and purifies the blood. Its **purity** and delicacy commend it to all. Sold by druggists and storekeepers everywhere.

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Fine, rolling, cleared, reddish-brown land, under cultivation in the Shasta Fruit and Raisin Colony. Twenty acres for $500. Terms: $200 cash, and balance in installments to suit purchaser, at 8 per cent per annum. Any tract will be set in raisins or fruit and brought to bearing by proprietor of colony, if desired. Send stamp for circular, and state how you wish the installments. GRIFFIN BROS., Cottonwood, Shasta Co., Cal.

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Send for Circular.

Shorthand, Typewriting, Penmanship, Bookkeeping.

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION. 401 California St., San Francisco.

ORANGE CULTURE

A practical treatise by T. A. GAREY, giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F

California Inventors

Should consult DEWEY & CO. AMERICAN AND FOREIGN PATENT SOLICITORS, for obtaining Patents and Caveats. Established in 1860. Their long experience as journalists and large practice as Patent attorneys enables them to offer Pacific Coast Inventors far better service than they can obtain elsewhere. Send for free circulars of information. Office of the MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS, No. 252 Market St., San Francisco Elevator, 12 Front St.

Ertel's Victor Hay Press.

We give on this page Geo. Ertel's latest achievement in hay presses, which he has properly named the Victor. The patents covering its design bear the recent dates of February 16, 1886, May 25, 1886, and September 28, 1886, and yet we are assured that the press has made a good record, and aside from its success at leading fairs in 1886, won good opinions by practical use in private hands last season. The speed of the introduction it has secured may be judged from the following, which we quote from a letter from the manufacturers:

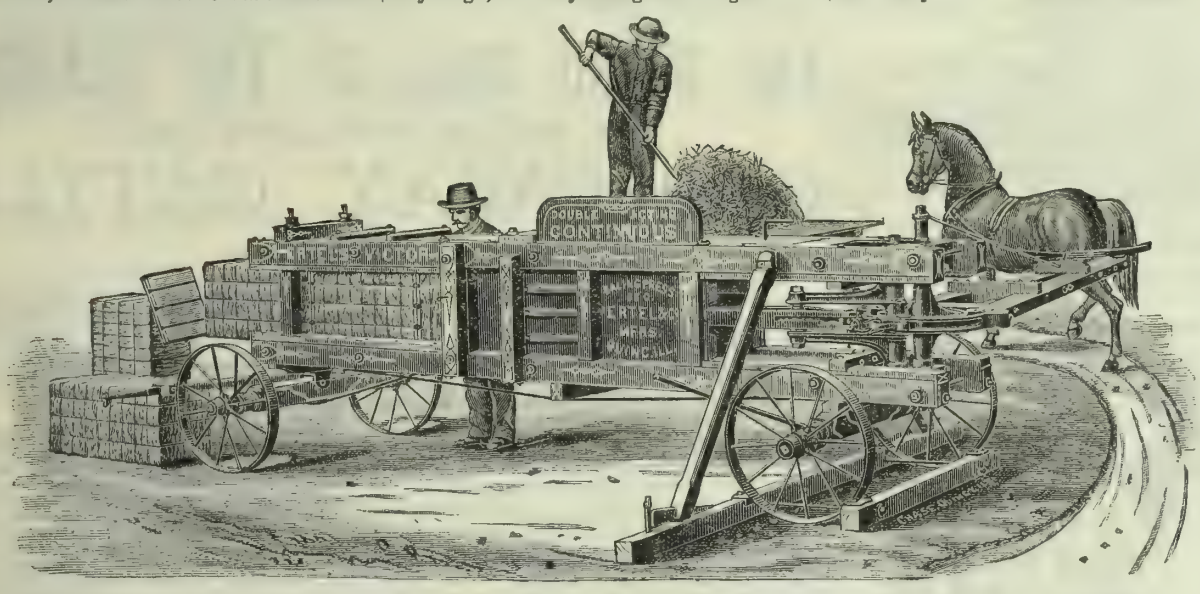
Mr. Sidney Stevens, of Odgen, Utah, having lately seen one in operation, came to our works to arrange for the selling of them, which was quickly effected, and he at once bought a carload. Bartram Robinson & Co., of Dallas, Texas, last season sold 24 of these presses, and write that this year they will sell no less than 50 Victors in their territory, the northern half of Texas. L. E. Parsons, of Cumings, Dakota Territory, has three of them in use for himself, and says he "would not invest in any other, the Victor being by far the best of them all."

No doubt a new design by a man so well known as George Ertel will command attention from California pressers. His new circular can be had by addressing George Ertel & Co., Quincy, Ill. We have not space to enter into a full description of the new press, but advise all interested to send for the circular. In connection with the engraving, however, we quote a few of the points of excellence claimed:

The Ertel Victor baling press is properly 15 feet long, mounted upon four wheels, either wood or metal, 30 inches in diameter with tire three inches wide. It is thoroughly braced and supported with truss rods running its entire length, and is built of three sizes, making bales 16x18, 16x20 and 16x22 inches, and of variable length to suit. The machine in its work is double-acting, or, in other words, a charge of hay or straw is fed into it at each turn of the horse or team which travels back and forth upon less than half a circle. It is continually discharging its bales as they are made and tied through its open bale chamber, all of which is done without stopping. Its compound power is most scientifically arranged and improved, no wood nor cogs, pulleys, belts, sheaves, chains or rope about it, simply three links are used connecting the power head to the pitman. The knuckle arms being of one piece, and both knuckle arms and power head having bearing surfaces upon separate shafts, and extending from lower to upper frame, thereby not only avoiding friction, but is also the strongest, most effective and durable power ever placed in a baling press without any exception. We use the extended pitman (patented to Geo. Ertel, and of which we are the sole owners), which, combined with the improved power head, gives the plunger a longer instroke, and fast travel in the start, while the pressing material in front of it is in a loose condition, and as the hay or other material becomes more dense or compact, the power increases proportionately until the pitman passes the center. By the compound lever power used in this press, the team has a leverage of 132 to 1, or, in other words, if the horse or team pulls 1000 pounds, a pressure of 132,000 pounds is placed upon the material being pressed when the pitman is drawn over the center, thereby insuring bales very compact and of great density.

Unlike any other reversible presses, the Victor is provided with a folder, automatically overlapping and folding down large or small charges of material most completely, thereby dispensing with all doors and attachments necessary to operate them, besides saving much time and hard labor in feeding it. The machine is fed with fork from top with perfect ease, or the operator can stand on a bale of hay with his body protruding through hole in table, arranged for that purpose, and thus feed the press by hand very successfully, without stooping or lifting the hay, a decided advantage in windy weather. It is also provided with diagonal openings across the bottom of feed-chamber box, allowing the seed, chaff, and dirt to fall through it while baling, in the most satisfactory manner, and is also further provided with an automatic yielding brake lever, most firmly receiving and holding the plunger at its extreme outward position when thrown back by the expansion of the material, not only preventing shock by rebound of plunger, but also enabling the operator to use the entire feed-hole in operating the machine.

The press-box in each Victor baling press is now lined on all four sides with iron or steel, fitted and fastened in a neat manner, which not only greatly reduces the draft on team, but is indispensable in baling wet or damp hay or straw (often used for paper-mill purposes), besides adds ten-fold to the lifetime of press.



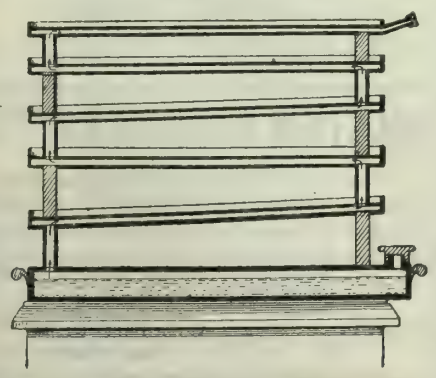
THE VICTOR—NEW PERPETUAL, DOUBLE-ACTING PRESS, BY GEORGE ERTEL & CO., QUINCY, ILL.

A New Fruit Evaporator.

The evaporator of which we give a sectional diagram on this page is apparently a "new departure" from all previous inventions for curing or desiccating fruit and vegetables. It is claimed for it that it dries fruit in less than one-tenth of the time now occupied by many other driers, and that its cost is about one-fourth of those commonly in use. This evaporator was patented last spring, and was placed upon the market for the first time in the summer of 1886. The results, it is claimed, far exceeded the most sanguine wishes of the manufacturers, and it is reported that 12,000 machines were sold in a few months, and that orders are coming in for many more than could be furnished at so short notice.

To explain the diagram it may be said that water is in the lower pan or steam generator, and that the steam passes up the conducting tubes successively from one tray to another, each tray having a steam chamber, the bottoms being double. The steam heats the trays to 212°, and each one alike, but it cannot go beyond this, therefore it is impossible for the fruit to be burnt, which is liable to happen with most evaporators. This machine of six trays can be operated by placing it upon any cooking stove, or it can be extended indefinitely by building two light parallel brick walls, say 2½ feet high, and of any length, with a furnace at one end and a smokestack at the other. If necessary, the smokestack can be in the middle and a furnace at each end, for very large operations. These brick walls are covered with sheet iron supported by iron bars, upon which the evaporators are placed side by side, six trays high, the trays being six or eight inches apart. The whole should be built under a light shed.

The whole thing being open and the process so rapid, it is claimed that no discoloration can take place, the steam being at once dissipated in the air. It is claimed that apples can be perfectly cured in 1 hour, peaches in 1¼ hours; plums 1½ hours, etc.



Sectional View, "Common Sense Evaporator."

The hollow pans are so arranged that most of the steam is self-condensing, falling through the upright tubes into the generator, and at the feeder is a contrivance which is self-regulating, notifying the operator when more water is required by a continued whistle.

The "Common Sense Evaporator" seems to be a model of simplicity, and there will no doubt be a general disposition among fruit-growers to examine into its merits. As will be seen in our advertising columns, the sole proprietors and manufacturers for California are Messrs. Bachelder & Coates, of Napa. Mr. Bachelder is a gentleman of great experience, who has patented and introduced many machines for various purposes, which are now used all over the world, and Mr. Coates is well known as one of the charter members of the California State Horticultural Society, and one of its directors. It is the design of the firm to secure immediate introduction of the drier, so that its claims may be fully tested on this year's fruit crop.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. May 12-18.	Portland. Rain.	Portland. Temp.	Portland. Wind.	Portland. Weather.	Red Bluff. Rain.	Red Bluff. Temp.	Red Bluff. Wind.	Red Bluff. Weather.	Sacramento. Rain.	Sacramento. Temp.	Sacramento. Wind.	Sacramento. Weather.	S. Francisco. Rain.	S. Francisco. Temp.	S. Francisco. Wind.	S. Francisco. Weather.	Los Angeles. Rain.	Los Angeles. Temp.	Los Angeles. Wind.	Los Angeles. Weather.	San Diego. Rain.	San Diego. Temp.	San Diego. Wind.	San Diego. Weather.
Thursday	.00	56	N	Cl.	.00	68	N	Cl.	.00	64	Nw	Cl.	.00	60	W	Cl.	.00	74	W	Cl.	.00	60	Nw	Cl
Friday	.02	58	S	Cy.	.00	78	N	Cl.	.00	68	Nw	Cl	.00	68	W	Cl.	.00	86	W	Cl.	.00	68	Nw	Cl.
Saturday	.02	62	N	Fr.	.00	78	N	Cy.	.00	74	W	Fr.	.00	59	W	Cy.	.00	88	W	Cl.	.00	72	W	Cl.
Sunday	.00	76	NE	Cl.	.32	82	N	Cy.	.00	68	W	Cy.	.00	56	SW	Cy.	.00	74	W	Fr.	.00	66	W	Cl.
Monday	.00	74	NE	Cl.	.00	74	S	Fr.	.00	66	SW	Cl.	•.—	61	SW	Cl	.00	78	SW	Cl.	.00	64	W	Cl.
Tuesday	.00	72	Nw	Cl.	.00	74	S	Cl.	.00	72	SW	Cl	.00	63	W	Cl.	.00	70	W	Cy.	.00	64	Nw	Cy.
Wednesday	.00	64	Nw	Fr.	.00	76	N	Cl.	.00	68	SW	Cl.	•.—	56	W	Cy.	.00	72	SW	Fr	.C0	64	Nw	Fr.
Total	.04	....	..	...	32	....	..	....	00	....	....	....	•.—	....	....	....	.C0	....	....	....	.00	....	....	....

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours.

THE "OVERLAND" FOR MAY.—The *Overland Monthly* for May contains articles upon "The Mission of the Knights of Labor," by Irving M. Scott, treating of the various phases of the labor movement; "Causes of the Piute and Bannock War," by Maj.-Gen. O. O. Howard—the first of a series of Indian war papers; "The Mineral Resources of Southern California," by Henry De Groot, a treatise of the mines and mining interests of the southern half of the State; "Grandma Bascom's Story of San Jose in '49," by M. H. Field, a vivid and picturesque sketch of early times in the Santa Clara valley; "Agriculture along the Rio Grande," by O. E. Cromwell, an interesting article upon the capabilities of the central New Mexican valley. "In a Mining Kitchen," by "I. H. B.," is an interesting sketch of pioneer days; "Puntacooset Colony" and "Chata and Chinita" are continued; short stories, sketches, poems, reviews and a supplement upon Albuquerque and the region tributary thereto complete the number.

THE STANFORD UNIVERSITY.—The corner-stone of the Leland Stanford, Jr., University was laid at Palo Alto last Saturday. No formal invitations were issued, and the whole affair was conducted in a very quiet, unostentatious way. Beside Senator and Mrs. Stanford, 18 of the trustees, and about a dozen other gentlemen specially interested, there were ladies, school children and neighbors present to the number of 300 or 400. The ceremonies were simple and impressive. Dr. Stebbins offered a prayer; Judge Lorenzo Sawyer, President of the Board of Trustees, made a fitting dedicatory address; and Senator Stanford himself deposited in the foundation a copper box of documents relating to the endowment and establishment of the institution, and with hammer and trowel laid the corner-stone in place above it.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
E. L. RICHARDS—San Diego Co.
GEO. MCDOWELL—Ventura and Santa Barbara Cos.
A. J. HARE—El Dorado Co.
J. L. DOYLE—Mariposa Co.
W. J. FREEMAN—Yolo Co
CHAS LIST—Alameda Co.
S. J. LITTLEFIELD—San Diego Co.
SILAS PRUDEN—Colusa Co.
WILLIAM POOL—Fresno Co.
M. S. PRIME—Alameda Cd.
R. G. HUSTON—Butte, Montana.
E. P. SMITH—Humboldt Co.
EDMUND WRIGHT—Shasta Co.

THE COMMENCEMENT EXERCISES of Field Seminary, Oakland, Cal., were held in the First Congregational church, Friday evening, May 20th. The graduating class was as follows: Misses Emma E. Cable, Lily Cockrill, Katie L. Cornwell, A. Lizzie Henry, Bessie S. Meserve, Christine F. Rengstorff, Bertha L. Rickey, Anna M. Simpson, Mabel E. White. The graduating exercises of this seminary are always of interest. As one of the worthy educational institutions of the Pacific Coast we are glad to state that Field Seminary is now in a very flourishing condition, its pupils numbering over 90.

FREIGHT RATES AGREED UPON.—It was telegraphed from Chicago, Wednesday, that the following rates of freight were fixed: Wool, scoured—New York, $2; Chicago, $1.65; Missouri river, $1.40; St. Louis, $1.54. Hops, carload—Chicago, $1.95; St. Louis, $1.85; Missouri river, $1.75. Barley—Chicago, 75c.; St. Louis, 72; Missouri river, 65.

A Popular Stopping Place.

The Winchester house, an advertisement of which appears elsewhere, has, under the efficient management of its present proprietor, Col. John Pooley, fast forced its way into public favor. The house is strictly "temperate"—no liquor being sold on the premises. The proprietor claims to set the best table in the State for the price. The location is most central and could not be better. It is but a half block from the junction of Market, Kearny and Third streets, the three principal streets in the city. Hot and cold baths are free and a free laundry in the house for the use of families. The Winchester house coach is at the depot on the arrival of every train, and carries passengers free to the house. Col. Pooley is an old resident of this State, and well known throughout Nevada, Placer, Santa Clara and other counties of California; also at Virginia City, Pioche, Candelaria and Carson City, Nevada; also Tombstone, Arizona; being interested in mines previous to entering the hotel business some years ago.

Thoroughbreds by Auction.

Elsewhere will be found an advertisement giving particulars of a large auction sale of thoroughbred live stock to take place in a short time, Killip & Co. being the auctioneers.

THE *Russian River Flag* is no more, having been sold to and merged in the Healdsburg *Enterprise*.

INSURE YOUR GROWING GRAIN

CROPS

IN THE FIREMAN'S FUND OF CALIFORNIA.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE.

SETH COOK, Danville, "Cook. Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

THE BEST HERD OF JERSEYS, all A. J. C. C. registered, is owned by Henry Pierce, San Francisco.

H. W. COWELL, Stockton, "Morrano Farm," breeder and importer (and agent for Leonard Bros., Mo.) of Aberdeen and Galloways. Young stock for sale.

ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

T. E. MILLER, Beecher, Ill. Oldest and best herd Hereford Cattle in U. S. Cattle delivered in California.

COTATE RANCH BREEDING FARM, Page s Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

W. J. MARSH & SON, Dayton, Nevada. Registered Shorthorns of choicely bred strains.

H. van der STRATEN, Hopland P. O., Durham Valley Farm, Mendocino Co., breeder of Shorthorn Cattle (registered). Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

J. A. BREWER, Centerville, Alameda County, Cal. Shorthorns and Grades. Young stock for sale.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

Estate of M. E. BRADLEY, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D. HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

E. J. TURNER, Hollister, Breeder of Percheron-Norman registered Horses and Roadsters.

E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

POULTRY.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

E. H. FREEMAN, Santa Clara, Cal., importer and breeder of poultry. Send for new illustrated circular.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

O. J. ALBEE, Lawrence. Pedigreed Scotch Collie Pups. Also, Eggs, balance of season, from best fowls, $3 per two settings.

MRS. M. E. NEWHALL, San Jose. White and Brown Leghorns, Langshans, Plymouth Rocks, Light Brahmas, Pekin Ducks and Bronze Turkeys.

JAS. T. BROWN, 18 Georgia St., Los Angeles, Cal. Breeder of Thoroughbred Poultry of the leading varieties. Send for circular and price list.

CHOICE LAND AND WATER FOWLS for sale at all times of all the most popular and profitable varieties. Please inclose stamp for new circular and price list to R. G. Head, Napa, Cal.

PIEDMONT POULTRY YARDS, J. N. Lund, Box 116, Oakland, Cal.

T. D. MORRIS, Sonoma, Cal. Toulouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

D. D. BRIGGS, Los Gatos, Cal. Fancy Poultry breeder

SWINE.

REGISTERED BERKSHIRES, BLACK JACK, BESS and REDWOOD; imported strains; pairs and trios, not akin, at farmers' prices. Young boars, low. F. H. Burke, 401 Montgomery St. S.F.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

I. L. DICKINSON, Lone Oak Farm, Senora, Tuolumne Co., Cal., breeder of thoroughbred Essex Hogs. Pigs now ready for sale. Prices reasonable.

JOHN RIDER, Sacramento, Cal. Breeder of Thoroughbred Berkshire Swine. My stock of Hogs are all recorded in the American Berkshire Record.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

SHEEP AND GOATS.

E. W. WOOLSEY & SON, Fulton, Sonoma Co., imp'rs & b'ders Thoroughbred Merino, & Jersey Cattle.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

T. H. HARLAN, Williams, Colusa Co., breeder pure blooded Angora goats, & Merinos; young stock for sale.

EASTON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

HORSES AND CATTLE.

Durham Cattle for Sale!

FORTY HEAD OF

Cows, Heifers and Young Bulls.

—ALSO—

SOME GRADED STOCK.

Will sell in lots to suit purchasers. Address

HYDE & MOORE,
Box 176, Visalia, Cal.

FOR SALE.

THE JERSEY HERD

BELONGING TO THE LATE

MAJOR ROBERT BECK,

Will be Sold at a great sacrifice.

For particulars apply to

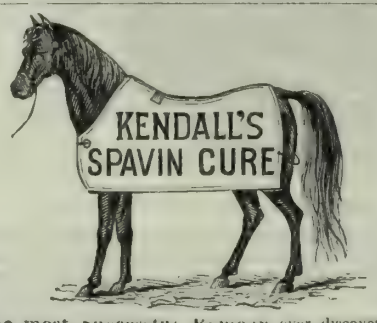
MRS. BECK,
510 Geary St., San Francisco.

BADEN FARM HERD

Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to

ROBERT ASHBURNER,
Baden Station, - San Mateo Co., Cal.



The most Successful Remedy ever discovered and it is certain in its effects and does not blister. Read proof below.

KENDALL'S SPAVIN CURE.

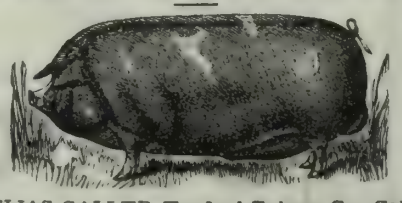
PHILADELPHIA, PA., March 18, 1885.

DR. B. J. KENDALL CO.—Gents: I had occasion to test your Kendall's Spavin Cure about a year since in the following manner. We had a horse which had been used by the Frankford and Southwark Fifth and Sixth Streets Philadelphia City Passenger R. R. Co., that developed a Ringbone, and after some months became so lame that we were compelled to put him away by selling, which we did to a party who took him to the country, and said party commenced a treatment of the horse with your Kendall's Spavin Cure which he followed up for the space of about three months with such results that at that time they put him to work, and a little later succeeded in entirely curing him, leaving the part perfectly smooth, which circumstance warrants me in saying that I have a great amount of confidence in your Kendall's Spavin Cure. Yours truly, GEORGE F. RICHER, Assistant Stable Foreman of Frankford and Southwark Fifth and Sixth Sts., Philadelphia City Passenger R. R.

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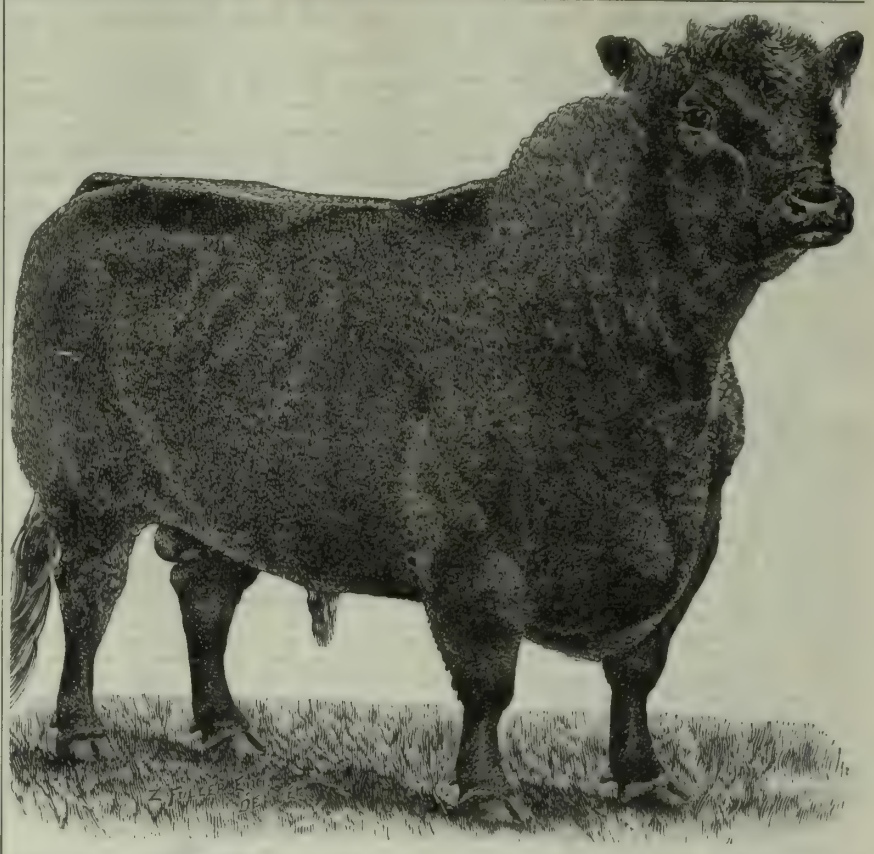
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Will hold a joint public sale of **Imported and Native Bred Galloway Cattle.** The lot consists of 100 head of males and females of the choicest breeding and individuality, embracing selections from four different importations by the Leonards, who (it is a well-known fact) brought over only the best that money could buy and careful judgment select. Most of the cattle offered by Bush & Morse, of the Windsor Farm, are direct descendants of the stock imported by the Leonards, who, in breeding the same, combined some of the best strains of blood in their herd. It is once in a lifetime that such an opportunity is offered to the public of purchasing such a splendid lot of cattle, and the undersigned feel no hesitancy in endorsing what is claimed for them—"that they are the finest lot ever offered at public sale in the world." The fact that they were all imported or bred by the Leonards is sufficient guarantee that the stock is as represented—"the very best that can be found." Nearly all the young stock are by the famous sire, "British Nero," 1877, and the females are bred to that grand bull, "Borderer of Drumlanrig," 2628, whose cut appears above.

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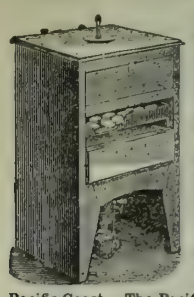


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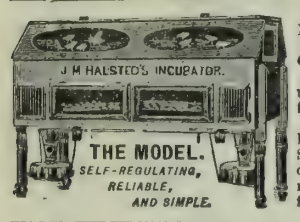
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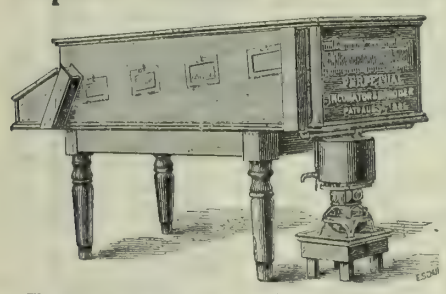
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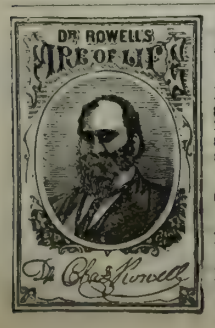
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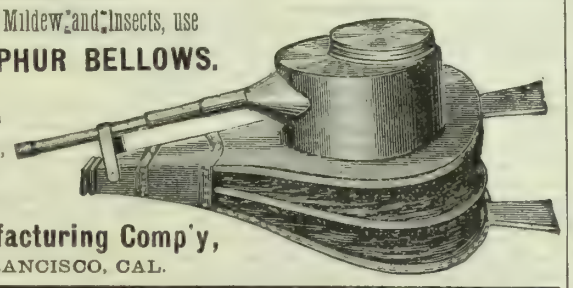
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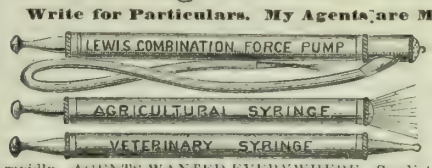


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Sold in iron drums containing 5 imperial gallons, equal to nearly 6 American gallons. One gallon mixed with 60 gallons of cold water will dip thoroughly 180 sheep, at a cost of less than one cent each; easily applied; a nourisher of wool; a certain cure for scab.

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S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 18, 1887.

The past week has been cool, with a moist wind blowing over the greater part of California, gladdening the hearts of many farmers. Reports of frosts to the fruit crop were greatly exaggerated, indeed the damage is hardly perceptible. Wheat at the East and also in Europe has been advancing. To-day's cables from London are as follows:

LONDON, May 18.—Cargoes off coast, quiet; cargoes on passage and for shipment, quiet but steady; Cal. wheat off coast, 39s 3d; Cal. wheat just shipped, 40s to 41s bid for May-June shipment; Cal. wheat nearly due, 39s 6d; French country market, strong; Liverpool wheat, spot, rather more inquiry; Liverpool wheat, Cal. 7s 10½d to 8s 1½d.

Foreign Review.

LONDON, May 16.—The *Mark Lane Express*, in its review of the past week, says: English wheat is firm. The sales during the week were 47,527 quarters at 33s 6d, against 67,127 quarters at 31s 11d, during the corresponding period of last year. The wheat crops are making a fast and healthy growth. Foreign wheat is quiet; values are weaker under the belief that the Chicago "wheat corner" will collapse and throw immense consignments on the English markets for cash realizing. The English flour trade is nowhere. Some of the largest millers are closing out and becoming agents for American flour, because they cannot grind wheat at a profit under the law affecting American flour, and the English milling industry is threatened with extinction. Eleven cargoes of wheat arrived; 5 cargoes were withdrawn and 5 remained. At to-day's market wheat was quiet. Sellers asked 6d advance, but buyers rarely responded. Flour was steady. Corn was weaker. Egyptian brans were 6d cheaper. Barley and oats were steady.

Eastern Wheat Markets.

NEW YORK, May 15.—Wheat has ruled fairly active, and prices have advanced irregularly on manipulation, dry weather, unfavorable crop reports, stronger foreign markets, and a free export demand. Spot closed quiet, at ¼c higher for the week: May, 96½c; June, 96¼c; July, 95⅜c; August and September, 93c.

CHICAGO, May 14.—Only a fair business has been transacted in the wheat market during the week and prices were somewhat irregular. Operators have shown less disposition to trade, and outsiders were rather light. Speculative operators are rather distrustful of the market, and outsiders have heard so much of manipulation that they are afraid to risk trading to any great extent. A good many outsiders, too, who were interested in May futures, learned a lesson which they will not readily forget, and having been caught once will be disposed to trade cautiously for the present. June wheat closed at 87c.

NEW YORK, May 18.—12 M.—98c for cash; 96¾@96⅞c for May; 96½@96⅝c for June; 96½@96⅝c for July; and 92⅝@93⅛c for August.

CHICAGO, May 18.—12 M.—87c for cash; 87¼c for May; 88⅛@88¼c for June; 85½c for July; 83¼c for August; and 83¼@83⅜c for September.

California Fruit in Chicago.

CHICAGO, May 14.—Oranges are in liberal supply, and the market is rather easy. Choice fruit has fair sale, while the ordinary lines are slow. California fruit: Bright Riverside, $3@4; San Bernardino, $3@4; Santa Ana, $2.90@3 25; St. Michael, paper rind, $3@3.50; Orange, $2.50@2.75; Los Angeles, $2.50@2.75; Navel oranges, according to quality, $3@4.50; San Gabriel, $2.50@3; blood oranges, fancy, $4@6; culls, $2. Lemons are easy at $3@4 ₱ box.

Fine California cherries were moderate, the sale being at $4 for 10-lb boxes of black ox-hearts, and at $4@4.50 for white sweet. Only fancy fruit-dealers care for cherries yet.

In the dried fruit market a steady, firm feeling prevails. The demand for apples, which is fair, is at the same time confined mainly to choice stock. Peaches remain quiet on account of there being no new fruit offered, and the old stock is not cared for. Of California dried fruit there are no stocks left, except a few plums and some raisins. Prices rule steady as follows: Plums, pitted, ₱ lb, 11@12c; Raisins, London layers, 20-lb boxes, ₱ box, $1.40@1.50; loose, Muscatel, ₱ box, $1.20@1.30; California layers, ₱ box, $1.25@1.35.

California Products at New York.

NEW YORK, May 15.—Beans are moderately active, the limited receipts strengthening prices. California Lima, $1.80.

Fresh Fruits—Choice California cherries cost $1 a box; tangerines bring 75 cents a dozen.

California honey quiet but firm, at 5½@6c.

Seeds—California mustard is in demand. Sales are reported of 600 bags of yellow at 4¼c, and 300 brown at 4½c. Yellow is quoted at 4¼@4½c; brown, 4½@5½c.

New York Hop Market.

NEW YORK, May 15.—In 1886 hops there was a fair trade. Quite a number of moderate orders have been on hand. Buying displays no particular vigor, however, and indicates nothing more than ordinary purchases by brewers, or for filling contracts. Still there is enough to hold prices steady on fine quality 1886 goods. Domestic or foreign, 16c to 18c cash and 18c to 20c on time, brewers' trade being general. Old hops have very little call.

Dried Fruit and Canned Goods East.

NEW YORK, May 15.—Canned—Tomatoes are showing rather less strength, as supplies are offered quite freely in lots to suit at $1.05. Lima beans are very scarce and firm. Corn is wanted, but nothing is offered under $1.10. Peas are dull and plentiful and prices favor buyers. The demand for California canned fruits is improving somewhat; supplies are limited, and full prices are demanded. Peaches, $2.50@2.75; pears, $2.50@3.25; plums and grapes, $1.75@2; apricots, $2@2.25.

Dried Fruit—Raisins are in better demand and prices are steady. Two-crown loose Muscatel, California, $1.25@1.35. Three-crown loose Muscatel, California, $1.50@1.70. California London layers, $1.50@1.75. Prunes—Turkish are moving out fairly well, most sales being at 3⅜c, but in instances 3¼c cash has been accepted. Bohemian is less inquired for, but nothing is offering under former prices. French, quiet at 6½@7c. Currants—Good jobbing demand at 5c. Citron neglected; Leghorn quoted at 16¾@17c.

Eastern Wool Markets.

BOSTON, May 17.—Wool is quiet but steady. Ohio and Pennsylvania extra fleeces, 32c; do XX, 33c; do XX and above, 34c; Michigan extra, 30c. Other grades are unchanged.

NEW YORK, May 15.—The wool market seems settled down to small business transactions, as no encouragement comes from the cloth manufacturers. Interest reported dull in fine grades, but the values of other descriptions are steadily held and comparatively high prices are asked. The stocks of medium and coarse wool are not large, and the industries consuming these are generally prosperous. The sales of a week included 22,000 lbs spring California at 20c; 18,000 do at 18@20c; 15,000 Eastern Oregon at 21c; 30,000 Montana at 29@30c; 35,000 Oregon on private terms; 25,000 Montana do; 75,000 Territory do. Northern California spring quoted at 20@25c; fall, 14@17c; Southern California spring 14@18c; do fall 11@12c; Colorado and New Mexico 14@22c.

In the Philadelphia markets the business last week was small. Manufacturers complain of current prices and buy only for urgent demand. Dealers are cautious in buying new wool, believing that the high opening figures will not be sustained later on. Among the sales were 1500 lbs Montana fine at 22c; 2000 lbs Montana fine medium at 25c; 13,000 lbs Montana fine medium at 26c; 3000 lbs Territory medium at 22c.

NEW YORK, May 17.—Wool is quiet. Domestic fleece, 30@37c ₱ lb; pulled, 14@34c; Texas, 9@24c.

Local Markets.

BAGS—The demand is fair, with sales made in a small way at 5½@5¾ for standard size Calcutta.

BARLEY—The market has ruled steady throughout the week. Dealings in options on Call have been fairly active, with slight fluctuations reported. Today's sales are as follows:

Morning Session: Buyer season—400 tons, $1.10¾; 100, $1.10¾. Buyer 1887—200 tons, $1.25½; 100, $1.25¾; 100, $1.25; 600, $1.24¾; 100, $1.24½; 300, $1.24¾; 100, $1.24⅞. Seller 1887—100 tons, $1.10¾; 500, $1.10; 100, $1.09⅞; 200, $1.09⅝; 900, $1.09½; 500, $1.09⅜; 1100, $1.09¼; 100, $1.09⅛ ₱ ctl. Afternoon Session: Buyer season—500 tons, $1.10¾. Buyer 1887—400 tons, $1.24⅜; 200, $1.24¼. Seller 1887—600 tons, $1.09¾; 100, $1.09⅛; 1100, $1.09; 300, $1.08¾ ₱ ctl.

BUTTER—Continued packing with a good trade demand cause a higher market. Pickled butter has made quite an advance during the week. Receipts are free but not fully up to requirements.

CHEESE—The market is weaker but not quotable lower. Lower overland freights work against the market.

EGGS—Heavy receipts of Eastern have created a still demoralized feeling. The market closed fairly steady even for gilt-edged.

FLOUR—Several mills have shut down owing to light supplies of wheat. The market is strong.

WHEAT—Transactions on Call the past week were fairly active, with fluctuations light. Today's sales are as follows:

Morning Session: August—200 tons, $1.82. September and October—100 tons, $1.80. Seller 1887—100 tons, $1. 79¾; 100, $1.79⅜; 300, $1.79¾; 1300, $1.79⅜; 1100, $1.80. Buyer 1887—200 tons, $2.04⅞; 200, $2.04¾ ₱ ctl. Afternoon Session: Buyer season—100 tons, $1.81½. Buyer 1887—500 tons, $2.04¼; 200, $2.04⅛; 400, $2.04. Seller 1887—200 tons, $1.79¾; 400, $1.79⅝ ₱ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Crop advices are fairly favorable from Great Britain, France, and Germany, but in the United States they are, taken as a whole, below an average at this season of the year. It now looks as if the crop in this country will be over 50,000,000 bushels short of last year's, which, taken in connection with India's short crop, and the low average stocks throughout Europe, will make itself felt in the markets of the world later on in the coming season. On this coast our Oregon and Washington Territory advices continue favorable, with harvesting expected to commence east of the Cascades toward the last of next month. In this State our advices are of a more favorable character, owing to cool, moist winds drawing moisture up to the roots of the plant.

The market the past week for wheat has been inactive, owing to the very limited obtainable supply outside of the syndicate's holdings. Several ships were taken last week to load wheat for U. K. These vessels are reported to be loading for account of the syndicate. Several mills have shut down, owing to their not being able to compete in selling flour with mills that purchased wheat at lower prices than now current.

Barley ruled fairly steady, with a strong tone throughout the week. The supply in sight is reported to be well concentrated, which necessitates consumers to bid up so as to have their wants met. It is now claimed by well-informed parties that the coming crop will not be much if any over 375,000 tons, against a crop of 530,000 tons last year. Brewing barley is scarce and commands high prices. A vessel is loading feed-barley for Valparaiso.

Oats ruled strong up to Monday, when a weaker feeling was manifested, due to the lower overland freights allowing shipments of Eastern oats to this market. The consumption is light, owing to the high prices ruling.

Rye is in light supply, with the market strong at full quotations.

Buckwheat is weak and in buyers' favor.

Choice grades of white corn are in request at a slight advance. Other grades are barely steady.

From our leading European exchanges we condense the following general information: Wheat on passage for United Kingdom May 4, 1887, equaled 15,360,000 bushels, against 16,400,000 bushels May 5, 1886, and 25,800,000 bushels May 6, 1885. Stocks and reserves of wheat and flour throughout Europe are smaller than at any time in four years, and in the United Kingdom are less now than the average of stocks taken for six years on July 1 and December 31. The United Kingdom, May 1 to August 31, 1887, will require to purchase in and ship from all foreign countries, in time to arrive out by August 31, 1887, about 50,000,000 bushels of wheat, including flour; France will require, April 15 to August 31, 1887 (Paris advices), a minimum of 22,000,000, perhaps 34,000,000 bushels; Belgium, Holland, Germany, Switzerland, Italy, Greece, Spain, and Portugal, will have also to supplement their own wheat crop with importations. The United States, United Kingdom, France, Russia, British India, Australasia and Austro-Hungary in 1884 produced 1,645,297,403 bushels of wheat; in 1885, 1,953,055,857 bushels of wheat, and 1886, 1,453,647,323 bushels of wheat, or 192,241,546 bushels less in 1885 than in 1884, and 191,650,080 bushels less in 1886 than in 1884. In the two years, 1885 and 1886, therefore, there was a diminished production of 382,891,626 bushels. Exports of wheat from Russia are expected to be small from May to September in 1887. Holding price of wheat at St. Petersburg is too high for shipment to the United Kingdom. Russian exports from southeast Europe go mainly to Mediterranean ports. Total Russian exports in calendar years have been, in 1883, 85,200,000 bushels vs. 69 432,000 bushels in 1884, 94,530,000 bushels in 1885, and 53,790,000 bushels in 1886. The Austro-Hungarian net exports of wheat and wheat flour in the six months ended January 31, 1887, equaled 6,388,745 bushels, against 6,680,047 bushels the corresponding period of 1885-86. British Indian wheat crop, 1887, is deficient, and the exports thence from January 1 to April 16, 1887, have been 2,068,000 bushels less than for corresponding period in 1886. India in 1886 (calendar year) exported to Europe 43,160,000 bushels of wheat, of which the continent took about 54 per cent. This year India may possibly export 25,000,000 to 28,000,000 bushels in her crop season, of which more than 50 per cent will go to the continent of Europe. The Australasian wheat crop is also deficient, and Europe may perhaps obtain, in 1887, entire, from that source 5,600,000 to 6,000,000 bushels.

Fruits.

Oranges and lemons appear demoralized under free supplies and heavy receipts of other fruits. From up north there is still a good demand.

Cherries continue to shade off daily under increasing receipts. The crop will be as large as last year, owing to more bearing trees this year.

Gooseberries are slow at the low prices.

Strawberries are coming in more freely, but their prices keep well up, which does not allow canners to buy.

The stock of dried fruits is very light. Advices received indicate that the quantity to be dried this year will be all of twice as many as there were dried last year. One man in Santa Clara county has purchased the products of quite a number of orchards to dry the fruits. At Los Gatos he paid 1½c ₱ lb on the tree for apricots, prunes and plums. Fully one-quarter of the orchards of the State is said to be sold to canners and driers. Prunes and plums are now held higher, but at the advance no one will buy.

Private advices indicate a very much larger grape crop than last year.

Raisins continue to rule strong for choice, which are scarce.

Robinson Bros., of Vacaville, sent the first Royal Ann cherries to this market, and Antonio Roger, of San Antonio, the first currants.

Live-Stock.

Bullocks continue to press the market, and consequently slaughterers dictate prices. The consumption is light, owing to more fruits being consumed. Mutton sheep are fairly steady at quotations. Calves are steadier. Hogs, except for the block, are slow. In horses there is a continued fair trading. Quite a large number of medium sized are being taken for railroad building. The inquiry for general utility horses continues good, with sales made as high as $750 ₱ span. Carriage teams, well mated, sell well, fetching from $500 to $1000 ₱ span.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8c; first grade, grass fed, 7@7½c per lb.; second grade, 6¾@—c; third grade, 6c.

MUTTON—Ewes, 6c; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8½c; small, 6@8c.

PORK—Live hogs, 4¾@5c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Feedstuff.

Bran is lower and easy at the decline. Middlings are barely steady. Ground barley and other ground feed are steady, with a fair trade calling ruling.

New hay is coming in slowly, due probably to farmers believing that better prices will rule later on, owing to the light crop. Choice old hay is still wanted. The consumption continues large.

Vegetables.

New potatoes continue to come in freely, and as the quality is improving they are fast taking the place of old both for shipping and local use. The market is weak. Old are lower and weak under liberal supplies and lessened demand.

Onions, if choice hard old, sell readily at good prices, but other qualities are slow. New onions are improving in quality, but buyers bid down.

Green peas continue to be taken by canners at low prices. They clean the market up at about 65c ₱ 100 lbs. Tomatoes are coming in more freely, but prices are still steady. Asparagus continues to rule strong. Summer squash is in light supply. Cabbages and cauliflowers are in free receipt, but sell readily.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	246,832	240,870
In port, disengaged	110,039	32,403
In port, engaged	11,208	23,432
Totals	368,079	296,705

The above gives a carrying capacity as follows: 1887, 588,926 short tons; 1886, 474,728 short tons; increase over last year, 114,198.

Turkeys are weak and lower, as are ducks and geese. But choice hens, roosters and broilers are strong.

Honey continues scarce and high.

Wool continues to move off freely. Some choice clips were sold at over 23c ₱ lb, the past week.

Hops are firmly held, owing to light supplies.

San Francisco, May 18, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 18, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 75
Butter	1 60	@	2 00
Pea	1 75	@	2 00
Red	1 40	@	1 55
Pink	1 25	@	1 50
Large White	1 75	@	1 95
Small White	1 75	@	2 00
Lima	1 75	@	2 25
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY.			
California	4	@	4½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	16	@	20
do Fancy br'nds	21	@	—
Pickle roll	20	@	24
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	9	@	10½
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	18	@	—
do, store	16	@	17
Ducks	—	@	—
Oregon	—	@	—
Eastern	15	@	15½
FEED			
Bran, ton	20 50	@	21 50
Cornmeal	24 00	@	25 00
Gr'd Barley ton	25 00	@	26 00
Hay	10 00	@	14 00
Middlings	23 00	@	24 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR			
Extra, City Mills	4 70	@	5 45
do Co'ntry Mills	4 20	@	5 20
Superfine	3 45	@	4 20
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 17½
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 07½	@	1 15
Yellow	1 05	@	1 10
Small Round	1 10	@	1 20
Nebraska	1 05	@	1 10
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 25	@	1 50
Wheat milling,			
Gilt edged	1 85	@	1 90
do Choice	1 80	@	1 85
do fair to good	1 75	@	1 80
Shipping choice	1 80	@	1 87½
do good	1 75	@	1 80
do fair	1 70	@	1 75
HIDES.			
Dry	14	@	16
Wet salted	7½	@	8½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Silverskin,	2 00	@	3 50
do new	50	@	1 00
NUTS—JOBBING.			
Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	2 00	@	2 50
Early Rose	1 45	@	1 75
Cuffey Cove	1 80	@	2 00
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	1 60	@	1 85
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	1 75	@	2 25
Peerless	1 90	@	2 25
Salt Lake	—	@	—
New Potatoes	75	@	1 50
POULTRY AND GAME			
Hens, doz	6 00	@	7 50
Roosters	6 00	@	11 00
Broilers	3 00	@	7 00
Ducks, tame	5 50	@	6 50
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 00	@	1 50
do Goslings	1 50	@	2 00
Wild Gray, doz	—	@	—
Turkeys, lb	16	@	18
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon,			
Heavy, lb	9	@	10
Medium	9	@	10
Light	11	@	11½
Extra Light	13	@	13½
Lard	8	@	12
Cal. Smoked Beef	11	@	12½
Hams, Cal	12½	@	15
do Eastern	14½	@	15½
HERBS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	2½	@	3
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	11	@	13
3d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	13
Timothy	5½	@	—
TALLOW			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	21	@	23½
Sact'o valley	17	@	21
Free Mountain	21	@	24½
N'hern defective	—	@	—
S Joaquin valley	12	@	17
do mountain	15	@	19
Cava'v & F'th'll	15	@	19
Oregon Eastern	17	@	24
do valley	19	@	26
Southern Coast	10	@	16

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 18, 1887

Apples, bx com	1 50	@	—
do choice	2 50	@	3 00
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Cantaloupes, cr	—	@	—
Cherries white bx	25	@	1 00
do black bx	65	@	1 50
do Royal Ann	1 25	@	1 50
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants chest	—	@	—
Gooseberries lb	1½	@	2½
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	10 00	@	11 00
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	3 00
do Navels	3 50	@	5 00
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries dr	1 00	@	1 50
Strawberries ch	3 50	@	7 00
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	5	@	7
do evaporated	12	@	13
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	13	@	13½
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
do evaporated	20	@	30
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8	@	12½
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus ₱ bx	75	@	1 50
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	8	@	12½
Pumpkins pr ton	—	@	—
Squash, Marrow fat, ton	10 00	@	12 00
do Summer bx	—	@	—
String beans lb	3	@	7
Tomatoes box	1 00	@	2 00
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	75	@	1 00
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, ₱ lb	15	@	25
Garlic, lb	1½	@	2½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, sk	35	@	50
Sweet Peas	50	@	65
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	20
Rhubarb bx	75	@	1 25

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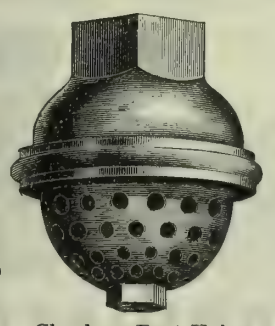
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List of U. S. Patents for Pacific Coast Inventors.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MAY 10, 1887.

362,706.—CURTAIN FIXTURE—Chas. Bell, Tacoma, W. T.

362,919.—ADJUSTABLE STOVE GRATE—H. W. Bodeman, S. F.

362,489.—HOISTING MACHINE—T. A. Byler, S. F.

362,736.—FRUIT-DRIER—G. A. & C. F. Fleming, San Jose, Cal.

362,650.—FRUIT-PICKER—M. H. Murphy, Portland, Ogn.

362,653.—ELEVATOR—A. G. Page, S. F.

362 654.—ELEVATOR—A. G. Page, S. F.

362,855.—DIRECT-ACTING ENGINE—Jos. Pracy, S. F.

362,904.—FEEDWATER HEATER—Paul Rossiter, S. F.

362,861. —RAILWAY RAIL-JOINT FASTENING—W. L. Van Harlingen, S. F.

362,809.—FAUCET HOLE AND STOPPER—W. L. Woodley, S. F.

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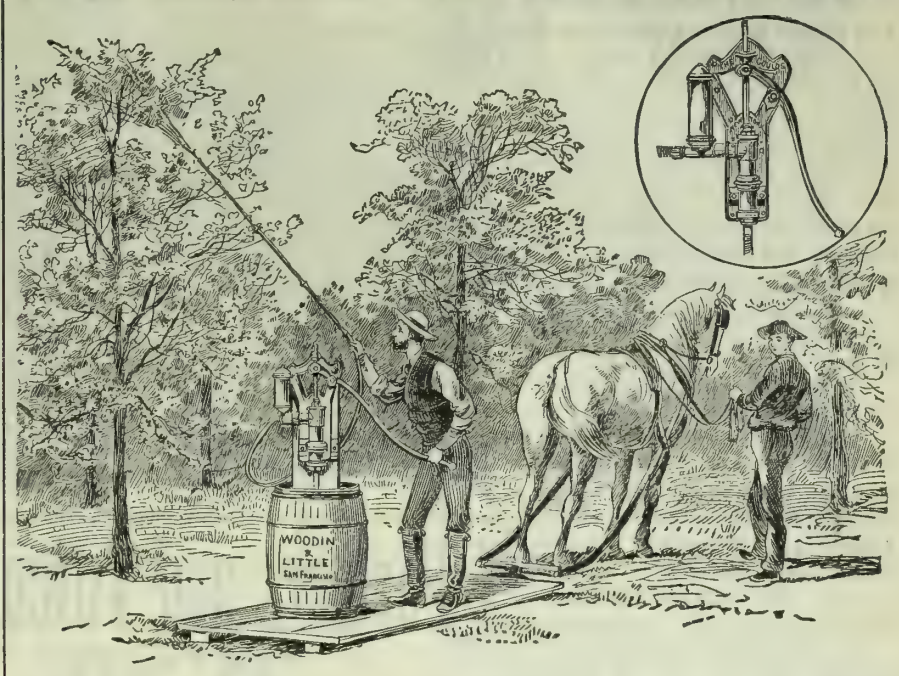
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Each Pump is fitted with our latest improved Metallic Valves, dispensing with all leather and rubber, as used heretofore, making the valves perfect in every respect. This Pump we have got up expressly for spraying vines, fruit trees and other shrubbery infested with the destructive insects which inflict so much injury in orchards, vineyards, etc. It has been adopted and recommended by the State Horticultural Society. The working parts are constructed entirely of Brass, and will not be affected by the corrosive solutions used in them. THE BAMBOO EXTENSION is an admirable invention. The operator of the Pump, by the use of this extension, can get to all parts of the tree while on the ground; also saving himself from getting his hands and face burnt from the solution. Our SPRAY NOZZLES will save their price within a day, as the amount of liquid saved is two-thirds over any other style in use. It throws a very fine mist.

We are sole agents for the IMPERIAL, SAN JOSE, and CYCLONE NOZZLES. Price, each, $1.00. Bamboo Extension, $3.00.

OUR CHALLENGE SPRAY HOSE.—We are now manufacturing a very superior Spray Hose that will resist the powerful solutions that are generally used for spraying purposes. Have something now that will give the best of satisfaction. EACH FOOT GUARANTEED. Not genuine unless word Challenge is stamped on hose.

We make a specialty of these goods, and are prepared to put you in nothing but first-class articles. Send for special prices and circulars before purchasing elsewhere.

WOODIN & LITTLE, 509 & 511 Market St., San Francisco, Cal.

ONLY COMPLETE PUMP HOUSE ON PACIFIC COAST.

GREAT AUCTION SALE

—OF—

THOROUGHBRED

Holstein-Friesian Cattle,

Standard-Bred Trotting Stallions,

French Coaching Stallion,

—AND—

Clydesdale Stallion,

—FROM—

Ontare Ranch,

Santa Barbara County,

AT 1 P. M. ON

WEDNESDAY, JUNE 15th,

—AT—

OAKLAND TROTTING PARK,

SHELL MOUND STATION.

On the above date, by direction of C. F. Swan, Esq., Manager of Mr. F. T. Underhill's Ontare Ranch, Santa Barbara county, we will sell his famous herd of Thoroughbred Holstein-Friesian Cattle. It comprises fifty-seven head and includes the Premium Cattle exhibited at the California State Fair and the various District Fairs throughout the State.

Also, Three Standard-bred Trotting Stallions, 5 and 2-year olds, an Imported French Coaching Stallion, 5 years old, and a Clydesdale Stallion 3 years old.

☞The sale will be entirely without reserve, other disposition having been made of the ranch.

Catalogues will be ready June 1st.

WEDNESDAY, JUNE 22d,

AT 1 P. M., AT

Agricultural Park, Sacramento,

Great Combination Sale of

40 Head Thoroughbreds,

Comprising drafts from Breeding Farms of

THEODORE WINTERS,
W. L. PRITCHARD,
J. McM. SHAFTER,
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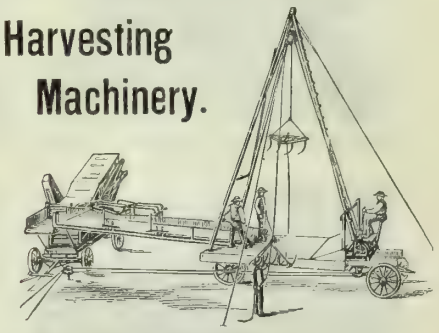
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Harvesting Machinery.



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Common Sense Evaporator

(Of NEWARK, OHIO).

Where known Drives all other Fruit-Driers out of the Market.

Patented 1886.

12,000 ALREADY SOLD,

And orders for 34,000 more. Perfection of simplicity, cheapness and rapidity of work. **Thirteen Dollars will Buy a Machine** that will do better work and more of it than any $50 Evaporator ever offered for sale, and in like proportion to an indefinite capacity.

Remember this is an Entirely New Departure,

Which completely revolutionizes the dried fruit industry. All fruits perfectly cured in from one to two hours, and with

No Possibility of Burning and No Need for Sulphuring.

It may seem incredible, but it is a fact. For circular and full particulars, address

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Agents Wanted—Best selling invention of the age.

Climax PATENT Crates and Baskets. The best made. Indorsed by all leading berry growers. Prices low. Illustrated Catalogue free.
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DEATH TO MILDEW!

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In Hamilton's Pest Exterminator we are enabled to offer to the public the most valuable and useful article ever discovered for the effectual annihilation of mildew and pests of every kind, that infest our vines and plants. This valuable compound, whose merit has been fully established, is used in a Fumigator as represented in the cut, and is therefore easy of application, and does its work thoroughly.

It Leaves No Noxious Vapors.
It Cleans the Vines or Plants.
It Destroys all Pests and Parasites.

It leaves the plant in perfect health, thus largely increasing the yield of fruit. One trial will convince the most skeptical of its merits. Orders promptly attended to.

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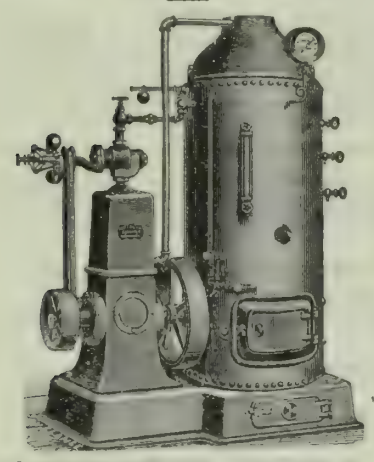
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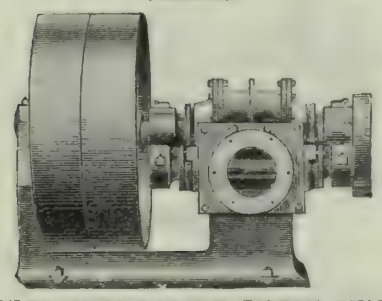
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Of Every Description.



"CASTLE" ENGINE AND BOILER (Combined).

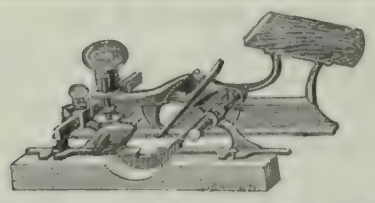


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Hydraulic Mining, Quartz and Saw-Mill Machinery.

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Farmers and Viticulturists, Attention!

FERTILIZE! FERTILIZE!

NITROGENOUS SUPERPHOSPHATE.

UNIVERSITY OF CALIFORNIA, Nov. 3, 1886.

DR. J. KOEBIG—Dear Sir: I have analyzed your sample of **"Nitrogenous Superphosphate,"** with the following result:

Soluble Phosphoric Acid	12.90 per cent
Reverted Phosphoric Acid	.95 "
Insoluble Phosphoric Acid	2.83 "
Potash	2.23 "
Ammonia	1.87 "
Nitric Acid	2.95 "

The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia**, therefore, total of Nitrogen calculated as **Ammonia**, 2.72 per cent.

This **Fertilizer** is a **Valuable Manure** for vineyards, orchards, gardens, farms, and I **recommend** its use by the cultivators of the soil **generally**, in **California.** Yours truly, DR. E. A. SCHNEIDER.

University of California, College of Agriculture.

BERKELEY, Nov. 20, 1886.

DR. J. KOEBIG, San Francisco—Dear Sir: I take pleasure in adding my testimony to that of Dr. Schneider as to the high quality of the **"Nitrogenous Superphosphate"** Fertilizer, analyzed by him at your request. It is a **high-grade article**, and as such returns the user a better money value than a low-grade fertilizer. It is **especially well** adapted to use in **California**, on account of the **predominance** in it of **Phosphoric Acid**, which is generally in small supply in our soils. Yet it is desirable that **"complete"** fertilizers be used in our orchards and vineyards, and **yours is of that character** in furnishing Potash and Nitrogen as well. Very respectfully, E. W. HILGARD.

The value of this Fertilizer consists in the large percentage it contains of **Phosphoric Acid**—the chief element of all plant food—in combination with the necessary quantities of **Potash** and **Ammonia**, and the ease and cheapness with which it can be applied.

In ordinary soils the following quantities will be found sufficient: For Wheat, Barley, Corn and Oats, 300 to 350 pounds per acre. For Grass, Sugar Beets and Vegetables, 250 to 300 pounds per acre. For Vines, Fruit Trees, from ½ pound to 1 pound each. For Flower Gardens, Lawns, House Plants, etc., a light top dressing, applied at any time, will be found very beneficial.

FOR SALE IN LOTS TO SUIT,

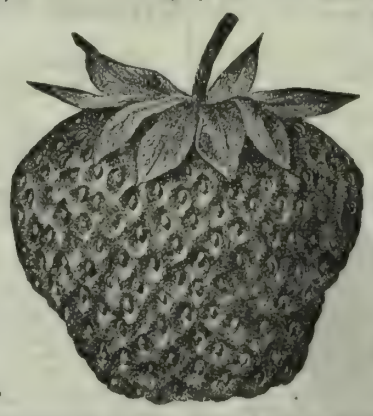
On board cars at Sobranto, Station of the C. P. R. R., 20 miles north of San Francisco, at $30 per ton, by the MEXICAN PHOSPHATE & SULPHUR CO., H. DUTARD, President, room 7, Safe Deposit Building, or

H. M. NEWHALL & CO., Agents, 309 and 311 Sansome St., San Francisco.

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60,000 OLIVE TREES!

Nut Trees,
Apples,
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Cherries,
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Apricots,
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Figs.



Quinces,
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Persimmons,
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Mulberries,
Small Fruits,
Rhubarb,
Asparagus,
Ornamental Trees,
Roses, Etc.

Santa Rosa Nurseries are now and always have been **FREE FROM SCALE**, and the unusual care which has always been taken to have everything that leaves our nurseries **true to name**, and in the best possible condition to grow, has given them a reputation for reliability which has caused our sales to **more than double every year** for ten years. ELEGANT CATALOGUE FREE.

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The Only Sure Death to the OYSTER-SHELL SCALE or SAN JOSE SCALE.

Guaranteed to be Perfectly Harmless. It Cannot Injure the Tenderest Shrub. Especially Warranted as a SUMMER WASH.

After the tree is in foliage and the buds started, it cleanses and reinvigorates it as nothing else will. Many "Insecticides" are advertised. They only affect the soft scale. None of them can successfully attack the San Jose or Armored Scale except this. This is the **cheapest possible wash. Price 3½ cts. per Pound by the Case. Two 40-lb. Cans in Case. 10 per cent discount by the Barrel.** Send for copies of letters from prominent fruit-growers. Not one has failed. Address

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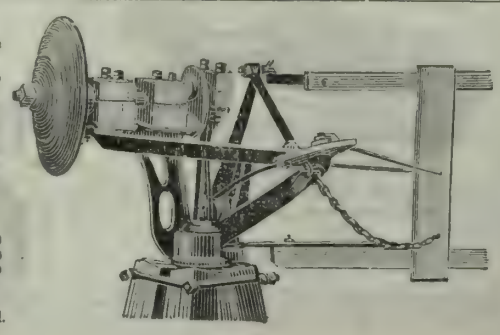
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Long Red, Mammoth Long Red, and Yellow Globe Mangel Wurzel, Yellow Ovid and Vilmoren's Improved White Sugar Beet Seed; Long White Belgian and Long Orange Carrot Seed.

Also in stock, California grown Seed of the above varieties. For sale at the

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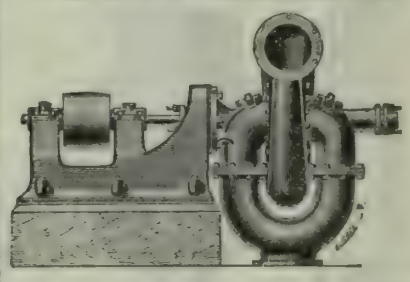
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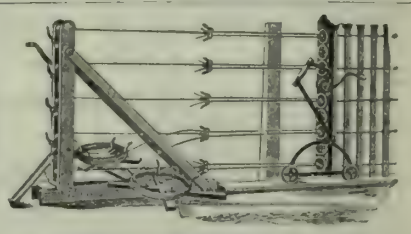
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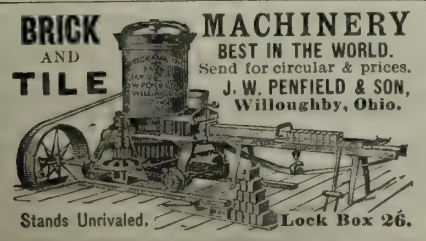
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Consist of stock in the canals and entitle the owner to one-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied for colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

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The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. One-half already sold. The cheapest Colony land in the county, on very easy terms to actual settlers.

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A Mounted Double-Ender Baling Machine, capable of baling 40 tons per day.

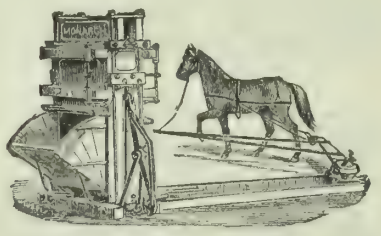
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Two sizes: Compressed bales and common bales. **Improved this year so that it is nearly one-quarter faster than before, and the back-and-forth movement of the horse lever is made to bring the hay across the stack and hoist the bales into a pile.**

Has three or four times the capacity of Eastern-made presses, with the same number of men and horses.

Price, at factory, San Leandro, Cal., **$1000.**

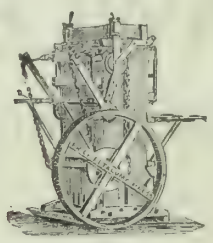


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Does its own Tramping. Feeds at Side, near the Bottom.

HAS THE FOLLOWING RECORD:

33 tons in one day; 105 tons in 3½ days; 20 tons, and over, daily average for the season; 2350 tons with one press in one season; 23 sold in one valley last season.

Price, at factory, San Leandro, Cal., **$500.**



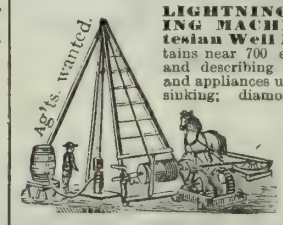
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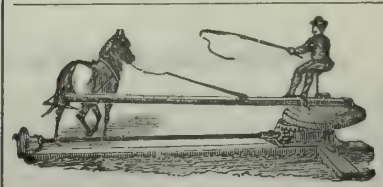
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SAN BERNARDINO, CAL.

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Yours very truly, FRANK MOIR.

Send for prices and further description. Do not purchase elsewhere until you have examined this machine thoroughly. It is the cheapest Header in the market.

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NEW STEEL HARVESTER & BINDER

WITH SQUARE PIPE FRAME.

A SUPERB MACHINE! A COMBINATION OF IMPROVEMENTS OF RARE EXCELLENCE FOUND ONLY IN THE McCORMICK.



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The improvements are so numerous and so important on the McCormick Harvester and Binder for the coming season that we find it difficult to condense a description of them in reasonable bounds. We want to assure our friends that the McCormick can be implicitly depended on not to introduce any new feature of improvement without first testing it in the harvest field so thoroughly that no shadow of doubt remains as to its real and positive worth. This is one of the characteristics of the McCormick that has caused it to be so much relied on in every emergency.

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The Main Frame is made of two-inch square pipe, a form that secures the greatest strength from a given amount of metal. This frame is strengthened at the corners by malleable iron joint plates, abundantly securing it against any tendency to twist out of true, a weakness so common to frames made of round pipe or angle iron, and which accounts for many of their defects.

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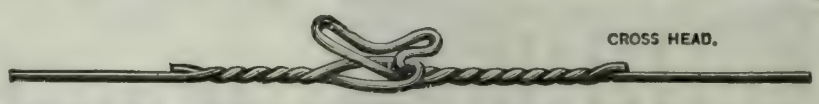
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Comparative Cost of Coil Wire and Prepared Bale Ties—Experience will teach that the same number of tons of Hay can be more safely secured and at less cost by our prepared Ties than by the use of coil wire. In the use of coil wire, one or two sizes larger is required, and then the wire is not reliable at the fastening; add to this the bother and loss of time in its use, the loss of wire, cost of re-pressing and loss of Hay in transit and in the market by reason of broken bales, and we are certain wire cannot be economically used.

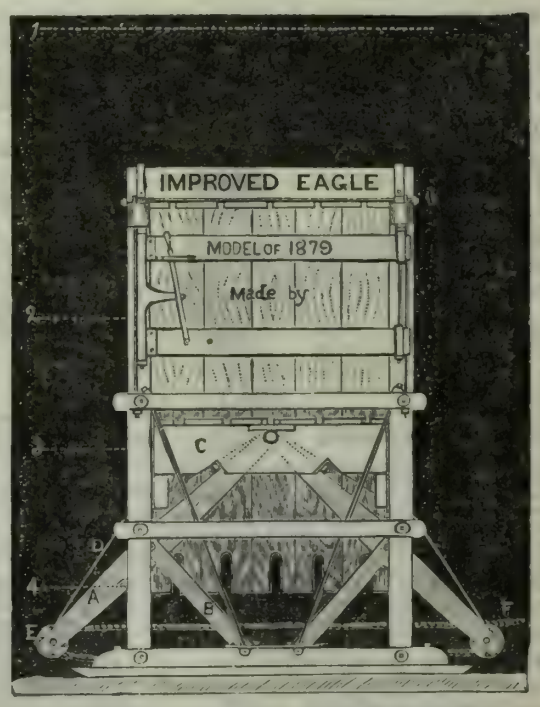
Why waste time making Ties in the field, when you can buy them ready made almost as cheap as the wire in the coil? We have on hand a large quantity of Steel Bale Ties, ready for immediate delivery, of the following sizes:

No. 14 Wire, 8 feet long, No. 14 Wire, 8½ feet long, No. 14 Wire, 9½ feet long.
" " 8¼ " " " " 8¾ " " " " 9¼ " "
" " 9 " "

PRICES GIVEN ON APPLICATION.

We believe we are fully justified in saying that in respect to the **Convenience of the Fastening, Quality of Material, and the Uniform and Excellent Manner in which our Bale Ties are made,** nothing now in market equals them, and that all who have occasion to use a Hay Press should give them a fair trial before purchasing any other binding material.

THE IMPROVED EAGLE HAY PRESS.



The Improved Eagle Press, as now made, is only a little more than eight feet high, and yet the box for the reception of hay is one foot deeper than formerly. It is a rapid and effective machine, and is in extensive use on this Coast, and in sections where hay is not to be transported long distances, and for that reason does not require to be baled so very solid, it will be found to answer the purpose as well as more expensive machines. It is very rapid, the capacity being from 10 to 15 tons per day. Its weight is about 2520 pounds, and it makes a bale 26x26x50 inches. Price, $250.

TICHENOR'S HAND-POWER PRESS

No. 2.—Height, 6 feet; weight, 1000 pounds; depth of box, 66 inches; bale, 36x24x20 inches; weight of bale, 125 to 155 pounds; price, $175.

No. 3.—Height, 6½ feet; weight, 1200 pounds; depth of box, 72 inches; bale, 44x24x24 inches; weight of bale, 175 to 250 pounds; price, $200.

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PACIFIC RURAL PRESS

SAN JOAQUIN EDITION—FORTY PAGES.

Vol. XXXIII.—No. 22. SAN FRANCISCO, SATURDAY, MAY 28, 1887. $3 a Year, in Advance; Single Copies, 10 Cts.

The New Pavilion at Stockton.

Agricultural District No. 2, as defined by the last Legislature, comprises the counties of San Joaquin, Stanislaus, Merced and Tuolumne. This district has its headquarters and holds its annual fairs in the city of Stockton. The district has long needed a pavilion and for the lack of it the annual fairs have often been deficient in indoor displays. Last year a creditable effort was made and a good pavilion show was secured in a temporary structure. This year the district will be grandly and permanently equipped, for, through the enterprise of the people, a pavilion is now in course of construction which will soon present the appearance shown in the engraving on this page, which is made from the drawing of the architects, Beasley & Son, of Stockton.

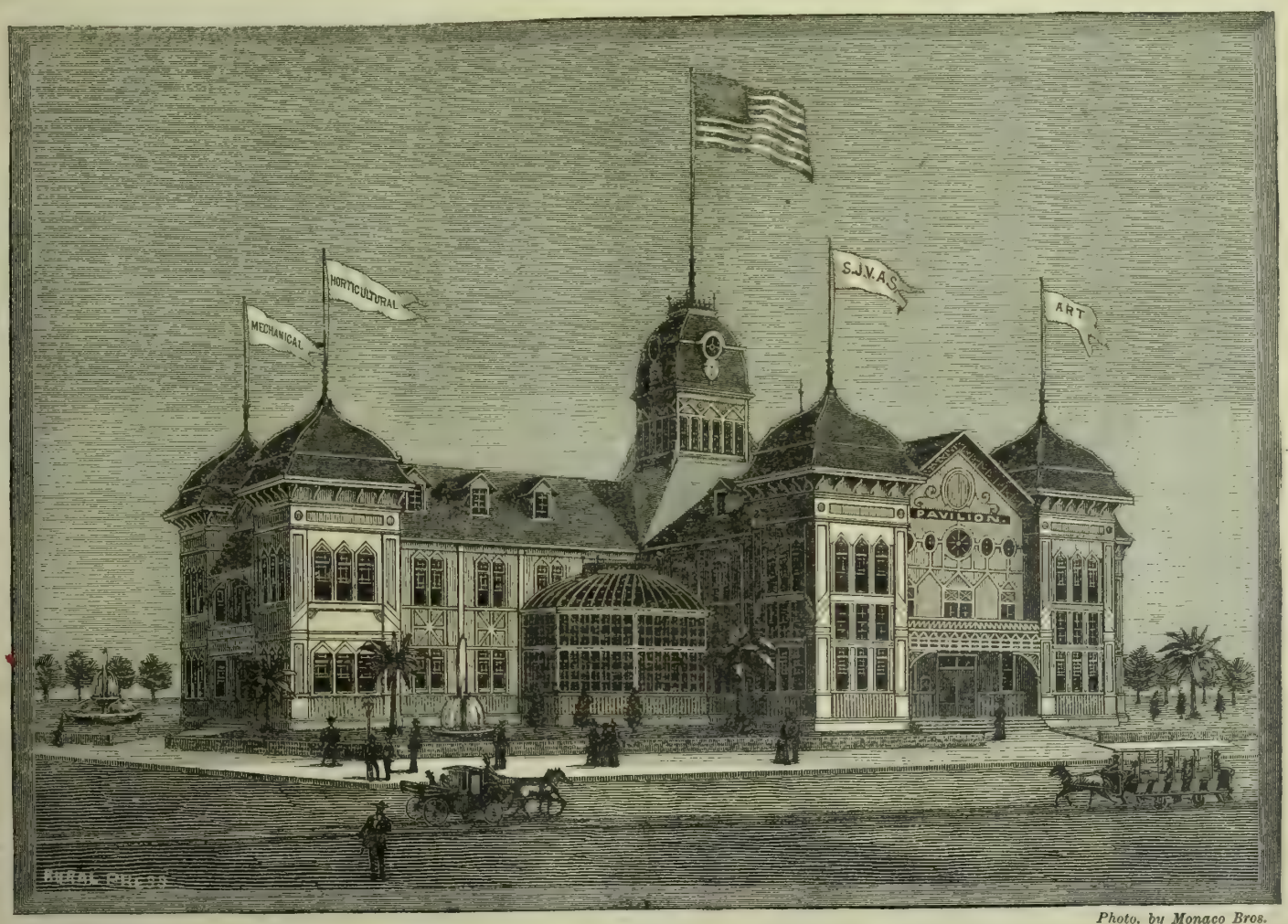


Photo. by Monaco Bros.

NEW PAVILION FOR AGRICULTURAL DISTRICT NO. 2—NOW BUILDING IN STOCKTON.

Stockton and the San Joaquin Valley Society have waited long for the pavilion, but the engraving shows that their waiting has not been in vain. Of quite a number of pavilions constructed for local and district societies during the last few years, that of Stockton is the handsomest, and will be a credit to the city and the State. It will be centrally located—a short distance from the plaza and the county courthouse. Street-cars pass the door, and wharves and railway station are not remote. We expect the erection of the new pavilion will rally to the support of the society much force which has not hitherto been mustered, and mark an era in the history of the society. It is estimated that the pavilion and adjacent improvements will cost upward of $50,000.

Agricultural District No. 2, as now organized and officered by State appointment, is the lineal successor of the old San Joaquin Valley Agricultural Society. It was organized at a citizens' meeting, held in Stockton, January 28, 1860. Col. H. T. Huggins was president, Austin Sperry, vice-president, and Geo. H. Sanderson, secretary. On February 4, 1860, a district was formed of the counties of Calaveras, Tuolumne, Stanislaus, Mariposa, Merced, Fresno, Tulare and San Joaquin, and a constitution was adopted February 11, 1860. The organization was made permanent by choosing John McMullen, president, with two vice-presidents from each county; General P. E. Connor and E. B. Bateman were elected secretaries. Capt. McMullen was obliged to resign on account of private business interests, and March 19, 1860, Dr. E. S. Holden was elected president, and held that office until he resigned, March 11, 1867. During that time Gen. P. E. Connor, Rev. Jas. A. Anderson, John C. Reid and H. T. Compton were secretaries. Mr J. Sartis succeeded Dr. Holden as president, and at the end of the year was in turn succeeded by I. K. Doak; the latter retaining the office till November, 1872, with H. T. Compton secretary during the time. Col. Caleb Dorsey was elected president at the annual meeting of 1872, but held the office only one year, Mr. L. U. Shippee being unanimously elected president at the adjourned annual meeting held Dec. 6, 1873. With the exception of less than one year, when Mr. F. Arnold was president, Mr. Shippee has been president to the present time. His secretaries have been H. T. Compton, H. W. Weaver, J. M. La Rue and J. La Rose Phelps. Without disparaging the services rendered by others, it must be stated that the moving spirits in the organization during recent years have been L. U. Shippee and H. M. La Rue.

Taking into account the new pavilion and the excellent Agricultural Park, of which an engraving is given on a subsequent page, District No. 2 is one of the best equipped in the State for the holding of industrial fairs. The effort to build the pavilion enlisted wide interest, as is shown by the subscriptions to life memberships, which have reached a large sum. It now remains for all in the district to make early preparations for a grand display this year. It will be a good year to make unusual efforts at the fairs, in view of the general interest in California and the thousands seeking homes here. Each district should do its very best in 1887.

London Purple.—We hope none of our readers were misled by a recipe for application of Paris green or London purple which said use "one pound to two gallons of water." There was a misprint in a bulletin from the Michigan Agricultural College, and we notice that some California papers copied the statement without correction. Prof. Cook, of the Michigan college, intended to advise "one pound to two barrels or about 100 gallons of water." Even this dose is pretty strong, according to experiments made at the University orchard, and which we described in the Rural of May 14th. If the Paris green or London purple is as rich in arsenic as that analyzed at the University it should be used about one pound to 200 gallons of water if one does not desire to burn the foliage.

The Irrigators Score a Point.—It is telegraphed from Visalia that Judge Cross, after hearing testimony Tuesday as to the volume of water flowing in Kings river, dismissed the contempt proceedings against the Fowler Switch Canal Co. and the Centerville and Kingsburg Ditch Co.

Freights on Fruit for the East.

Advices from Chicago indicate that the fruit-growers have secured a number of reductions in rates on fruit overland, and advantages in manner of carriage for this year's shipments. The Chicago meeting of the traffic managers, to which we have several times alluded, was, we understand, quite besieged with telegrams from influential citizens and organizations of California urging the granting of the rates which the growers asked for.

From communications addressed to R. B. Blowers, Eastern agent of the Fruit Union, by J. C. Stubbs, of the Southern Pacific, who was attending the Chicago meeting, we learn that the following rates were finally agreed upon:

By freight train to Missouri river points, per 100 pounds, $1.10; by passenger train to Missouri river points, $2.10; by freight train to Chicago, $1.25; by passenger train to Chicago, $2.50; by passenger train to New York and Buffalo, $3.12½.

The above are rates for single carloads. For such shipments it is the intention of the railroad companies to make fast time, approximating passenger train speed, but time will not be guaranteed so as to make the carriers responsible for damages in case of accident or failure after reasonable efforts are made.

The arrangements for special fruit trains of 10 cars seem to cover an agreement that passenger time or better will be insured. Mr. Stubbs in his letter says: "We mean that the train shall leave ahead of the passenger train on the same day, and shall not be overtaken en route by said passenger train." For such trains, *in addition to ordinary freight charge as above*, the charge will be: Sacramento to Missouri river, $1275 for a train of 10 cars containing 121 tons or less, and a proportionate rate for the excess over 100 tons in said 10 cars. To Chicago from Sacramento for similar special service a charge of $1500 will be made for a train of 10 cars containing 121 tons or less and a proportionaterate for the excess over 100 tons in said 10 cars.

The rate on passenger trains to New York will be $625 per car of 100 tons; or if special trains not more than 100 tons be required, the rate will be $400 per carload.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

A San Joaquin View of Mixed Farming.

EDITORS PRESS:—The true wealth of a country consists in each producer therein furnishing his quota toward the general product of the various industries, and this proposition has particular force in the farmer's case. He should produce on his farm, and in the majority of cases by the industry of himself and family alone—because of limited means—nearly all that he needs in the way of food for home consumption, both for family and stock; fruit of various kinds, berries, vegetables and forage, both green and dry, which may be abundantly done in comparatively small space by means of irrigation; and right here it may not be out of place to speak of the misleading tendencies of many plausible theories advanced in many cases, I'm afraid, by people who know of them solely by extensive reading and perhaps conversing with other theorists, and so believe themselves fully and correctly informed in the matters of which they treat. They do not always mislead, it is true; but a statement of facts, the knowledge of which is acquired by actual experiment, is much safer to follow and surer to result as promised, provided the necessary conditions are complied with. Allowance must be made for difference in climate and soil, for what is proper and good in one locality may not be in another, and so, unless one is a scientific farmer, educated in the matter of soils, etc., and their capabilities, he must commence with the observance of the general rules for farming until he can inform himself by actual and intelligent experiment both as to what his land will produce to the best advantage, and the best method of cultivating it to secure full results.

One should guard against indulging in rosy visions of large incomes to be rapidly acquired on small farms, or for the matter of that on large ones either, at present, or he will be at the least very liable to disappointment; but it is coming to be more generally known that a family of ordinary size and requirements can be supported quite comfortably on 20 or 15 acres and a little laid by each year for future needs, and the principal requirements for this are, first, intelligent selection of soil and climate for what you desire to cultivate, and then proper and thorough cultivation and irrigation, where irrigation is possible, for, although with thorough cultivation good results may be secured without irrigation, still they are fuller and more complete when water is to be had.

The product of each small farm should be varied so that if the market prove indifferent for one product it may prove favorable for another, and a little profit on each aggregates a fair profit on the whole. With a proper attention to these matters and the practice of thorough economy and continued industry, comfortable and pleasant homes may be had by all who desire them, even if their means are small.

I am watching with considerable interest the operations of a friend of mine in this direction. His farm consists of 15 acres, fenced and subdivided for hay and vegetables for three cows, one horse and 500 hens; about 400 fruit trees, a half acre of grapes and berries and the 500 hens yarded and housed in lots of 15 to each house and yard. The fruit trees are just coming into bearing, and the hens are producing yearly a fine and paying lot of young fowls for the high market, besides an abundance of eggs; and I am pleased to say that he is slowly but surely making a success of getting a living and adding to the value of his place each year. What he needs most now is a more plentiful supply of water which a coming ditch will probably supply this season, and whether he succeeds or fails, and how, may form the subject of a future contribution if desired.

Lodi, Cal. T. B. GEFFROY.

Washington Territory Notes.

EDITORS PRESS:—Western Washington Territory, especially the Puget sound basin, viewed in all its aspects, presents wonderful prospective advantages. How a region of such varied resources could have remained so long in a primitive condition, seems passing strange. Her commercial advantages, her fisheries, her vast timber tracts, her mines of coal and iron, with a soil of remarkable fertility on her river bottoms, indicate a country that will, at no distant day, take a front rank among the sisterhood of States. It is a region capable of supporting a dense population, and when its resources are fully developed, a civilization second to no other will spring up on these shores. For those of limited means, or who have to create their capital by the labor of their hands, it is a country that offers superior inducements, and will for some time to come be the place for poor people to secure homes.

I will, however, add that it takes plenty of muscle to develop a place in this Territory. There is no use in a person in delicate health coming here and undertaking to hew out a home in the wilderness; but for the young man, or the hardy immigrant from the Northern States, I know of no section of our broad domain that, all things considered, possesses a superior soil. Those who have resided any length of time in California find the winters here too cold and wet; but Eastern men from the Northern States think it the most delightful climate in the world.

There is rivalry among the towns of the sound as to which shall be the great commercial metropolis of the Northwest. Seattle has the lead at present, but whether she will maintain her supremacy is a matter of doubt among more thoughtful minds.

The reason is that a railroad has been projected to run from here to Bellingham and Semiamoo bays, to connect with a branch of the Canadian Pacific Railway, from New Westminster, on the Canadian Pacific R. R. Wherever the Northern Pacific and Canadian Pacific Railways unite—whether on the shores of Bellingham bay or farther north at Drayton harbor, on Semiamoo bay—it requires no highly prophetic mind to discern that at their point of junction is to be the future great city of the Northwest. General Sherman in one of his reports to the War Department, said: "A railroad from Lake Pend'Oreille through the Skagit pass, to the shores of Bellingham bay, will become a national necessity." A line of railroad from that point would shorten the line of the Northern Pacific some 300 miles.

Whatcom county contains a greater area of rich bottom lands than any other three counties of Western Washington. Whatcom, the county-seat, is situated on Bellingham bay. A number of Eastern capitalists have recently bought a large amount of lands and invested heavily in coal and iron mines in this county.

There is a gap of half a mile to complete of the Cascade branch of the Northern Pacific. Travel to and from the East is already going that way.

It is one of the coldest springs ever known here, and vegetation has been retarded, being a month to six weeks later than usual. Cold winds and rain have prevailed during the first week in May, which makes one think of the flower-clad hills of fair California.

O. F. SHAW.

Seattle, W. T., May 9, 1887.

Southern Calaveras.

EDITORS PRESS:—Springtime once more in this fair old county of the foothills spreads a wealth of shining leaf and fragrant royal bloom over every hill and into every plain. Where once the earliest pioneer saw in its wild uncultured pine-lands, its rocky river-beds, its cool, deep canyons, a harvest of gold for the eager pick, the sober home-builder now beholds its wild grasses crushed by the roaming herds, bright green stretches of foothill grain, and on its rugged hills already torn and marred by the vanished prospector, orchards of blooming trees that promise to droop in the red beams of autumn sun with heavy clusters of luscious fruit. The old glory of the mines, the excitement of good strikes and rich pockets, is over and gone with the rushing throng of miners who first penetrated its wastes of forest, and now begins the second era of gold—gold in the shape of ripened fields and tempting burdens on the bending trees. This season promises a good yield in almost every section. For the last two or three years the crops have been poor, owing to frosts and the destroying army of grasshoppers that fell like a scourge on the face of the fair fields, and now although this year is but an average one, it seems particularly good compared with preceding failures. In the southern part of the county, near Milton, where wind-swept hills border on the broad treeless region of rolling plains, the hayfields needed rain before harvest, but it fell in the shape of a light shower which was over in a short time, and then came the warm weather that rapidly dried the grass, so the ranchers began mowing and now hope that the anxiously looked for rain will not come until their hay is all in.

Farther up toward the hills, in Salt Spring valley, the ranchers are cutting the grain, and it lies in fragrant mounds over the shorn fields, and the mowers and rake-drivers are busy from dawn to twilight. It is here that a wonderful improvement is noticed in the past three years. Fences are built, wild grazing lands cultivated for hay, and many new homes established. In Copperopolis there is great advancement—the rumor that the copper mines are soon to be worked again has given much encouragement to the farmers and stock-raisers, and consequently there is a rise in the price of property and a general revival in all kinds of business. There is twice as much fencing as there was a few years ago, the barbed wire and stone wall being more common among new fences than other kinds, the old brush fence growing rather scarce. There are scores of new grain patches that produce bountiful crops, the waving barley heads reaching almost up to the top of the fences and growing thickly all over the whole field.

Gardens also receive much more attention than formerly. One small garden in Copperopolis, belonging to Mr. Wm. Turner, shows what good results can be obtained in a short time. This garden has been planted within the last five years, and now contains fine thriving trees, many of them seedlings, and yields a splendid crop of fruit in proportion to its size. Peach trees, only four years old, bear excellent large peaches that were pronounced perfect in flavor last year, and this season they are again loaded so that the branches threaten to break with the increasing burden. Walnut trees grow in this garden and bear well; orange trees also thrive and resist the light frosts that sometimes come. There are other new gardens here, one young orchard belonging to the Moore family showing remarkable growth in a short time. This increase in cultivation, the new windmills and busy gardeners, greatly add to the attractiveness of this little town which has so long been merely a sleepy old place, dreaming of its restless past when those great old sheds and massive buildings were full of rattling machinery and busy workmen unearthing tons on tons of glittering blue ore that now lies about in mountainous heaps unused. This place is on the route to the Yosemite valley, and the travel is large, many tourists preferring it on account of their opportunity to pass through the famous foothills of Calaveras and Tuolumne, the very heart of the southern mines. The stages pass twice a day and the travelers are accommodated with lunch going up and breakfast going down, served in elegant style at the Union hotel, kept by Mr. and Mrs. Mely. The tourists are generally delighted to reach this interesting old place, holding much of its former glory yet in its large, handsome hotels and fine public buildings so vastly superior to those in other towns of its size, and breathing yet of its unfading past in the queer old buildings and falling ruins. Capt. T. B. Meader is proprietor of the Meader house, situated in a beautiful garden of blooming roses away from the business part of the town. This hotel is a favorite resort for summer boarders, and also accommodates private travel.

A new feature has arisen in horticultural interests in the favor that is being shown to the planting of orange trees. In the warm climate of this lower foothill country they grow so well that many are setting out young trees, hoping to raise as fine specimens of fruit as were grown last year on the old Stausic place, where one tree about 15 years old produced over 400 oranges, large and sweet, of excellent flavor and brilliant color.

Thus each succeeding year the hills burst forth into unexpected bloom and beauty, leaving unfelt the destructive hand of time that tears down and crumbles into ruins the products of man's labor, when tender nature's gentle touch so kindly restores the loss in hillslopes blossoming with fair, frail flowers and twining leaves, ripened golden fruits dropping from the loaded boughs, and blooming clusters of the purple grape. MAY BLOSSOM DAVIS.

FORESTRY.

Government Promotion of Tree-Planting.

We have received from the Department of Agriculture two circulars which will be read with interest by the many who are working to extend the forest area of our State.

Forestry in the Schools.

Allow me to call your attention to the necessity for all concerned in the public welfare of giving serious thought to the growing importance of the forestry question to the country as a whole and to the individual States. I trust that the warning voices pointing out the dangers to the welfare of the country, arising from an indiscriminate destruction of forests without adequate provision for their restoration, have been heard by you, and also the suggestion that, in order to arrest the tendency to wastefulness in this particular, it is necessary to look first of all to the aid of public schools and other means of education.

To show that the subject is a serious one, considered only from a material point of view, let me submit to you a few striking figures which seem to approximate the state of affairs as arrived at in the preliminary investigations carried on by this Department.

The forest area of the United States seems to be less than 450,000,000 acres, of which more than 10,000,000 acres yearly are destroyed by fire, and to supply the needs of fuel, ties, lumber, etc., it is estimated that certainly not less than 10,000,000 acres are denuded, altogether an area of over 60,000 acres per diem, the product representing a value of more than $700,000,000 per annum.

The consumption of the forests in supplying our railroads with ties is enormous and increasing with the rapid extension of the roads. It is estimated that the building of existing roads has taken the available timber from an area as large as the States of Rhode Island and Connecticut, and that to keep them in repair by replacing decayed ties with new ones requires annually the yield of more than 500,000 acres.

In 1853 the forest area of Ohio was 55.27 per cent of the area of the State. In 1881 it was but 22.53 per cent. A similar rapid consumption of the forests has taken place in other States. In many cases the flow of streams has been lessened or made irregular by the removal of the forests from their vicinity. Floods and drouths have become more frequent and destructive from the same cause, and agriculture and manufactures have suffered greatly in consequence. The consumption of the forests so far exceeds their growth that, if no effective measures are taken to check the decline, the forests would entirely disappear within a hundred years. The great pine forests of the Northwest will hardly last till the close of the present century.

I will only allude to the more complicated and sometimes disputed influences which the forests exert upon the agricultural and hydrological conditions of its surroundings. Your acquaintance with the history of older nations, and the observations recorded on this continent, will convince you that this is at least a subject which requires serious attention.

This Department in its Forestry Division has been charged to obtain such information as may form a basis for intelligent action, and to exert, by the diffusion of accurate knowledge on the subject and otherwise, its influence in leading to a reform in the present methods of using the forests and to secure their renewal.

This most desirable work, however, is only inadequately provided for by the appropriation given by Congress for the purpose. And the difficulty of obtaining precise and reliable information as to actual conditions and needs is great.

Knowing that there is no body of men in the country, as a class, more intelligent and more capable of aiding this important work, nay, more interested in it, than the educators of the coming generation, perceiving also that the two purposes of obtaining and diffusing information for which this Forestry Division was constituted are subserved at one and the same time by the following plan, I would respectfully ask your consideration and support of the same.

It is proposed, 1st. To engage the force of teachers under your superintendence upon the ascertainment of facts in regard to forest areas, their distribution, utilization, etc., in their immediate precincts. 2d. By thus directing their attention to the subject and supplying them with such information as the Department may be able to give in regard to forestry, to have their own and their pupils' interest excited, and thus by indirect influences to arouse a desire to understand the questions involved.

It is not proposed to introduce a new branch into the course of studies, but simply to create a moral sentiment which will do its share in enlarging the views of those soon to become citizens.

Nor is it believed that such work, properly laid out and directed from here, will involve much time or undue attention on the part of the teachers, but while bringing them into sympathy with a national undertaking will afford them not only pastime and recreation but the consciousness of performing an important duty of citizenship.—B. E. FERNOW, Chief of Division.

A Circular to Educational Men.

The Forestry Division of the Department of Agriculture, primarily created to promote a popular understanding of the vital interests which are centered in the forest wealth of the United States, has directed its principal effort hitherto toward investigating the conditions of the forest areas of the country, and the rapid decrease of the most valuable sources of supply, and has shown the need of inaugurating a new system of forest management and reproduction, by which alone the perpetuation of an ample supply of forest products, so vital to national prosperity, can be secured.

The array of statistics collected and reported already by this agency should suffice to awaken greater popular interest in the solution of so momentous a national problem than has thus far been manifested.

Hitherto we have destroyed our forests for the sake of immediate pecuniary gain or convenience, with reckless disregard of consequences or of the future supply of a material so valuable and even necessary for almost all pursuits and for the comfort of all classes. The history of other countries, which by the denudation of their forests have lost their agricultural fertility and which have suffered also from great climatic changes, should be sufficient warning to an intelligent people like ourselves to guard against a similar experience by taking measures in season to arrest the course of destruction which has prevailed and to adopt a system of wise forest conservation.

In marking out the line of future work to be undertaken by the Division of Forestry, the Commissioner of Agriculture deems it of great importance that those to whom the shaping of the intelligence of the coming generation is intrusted should be specially invited to take a calm consideration of this long-neglected subject.

Schools of every grade, without departing at all from their proper work, can supply some practical lessons in regard to the object and use of forests, the nature and growth of trees, and the significance of their existence or absence, awakening thereby the interest of pupils in a kind of knowledge too little fostered in the schools of the agricultural classes.

In schools of the higher grade it can be united with instructions in botany and natural history in general. In colleges, forestry should be presented in lectures on its various relations to arboriculture, agriculture and political economy.

Engaging thus the popular and higher education, we may establish a popular system of forestry suited to the peculiarities of our country and its people. We shall foster at the same time sympathy with rural objects, which will tend to make our youth content with rural life, instead of being overcome by the attractions of the great cities.

The Commissioner calls special attention to

the value of object lessons in any branch of study, and recommends to all heads of the higher educational institutions, as far as in their power, to cause the grounds of their respective institutions to be planted with collections of forest and ornamental trees and shrubs, grouped in accordance with their botanical relations or with a view to successful growth by a system of judicious mixing of kinds for mutual protection.

A general adoption of this recommendation would soon convert the much neglected grounds surrounding our colleges and schools into park-like groves of great attraction, the exponents of correct taste in ornamental planting, and perpetual volumes of forest botany and arboriculture.

In like manner might the study of botany be promoted and popularized by the culture of representative kinds of plants united in accordance with their systematic relationship. Botanical parterres of plants, both economic and ornamental, might easily be introduced into the school grounds of the country, through which much useful information, both practical and scientific, would be imparted, assisting rural life in its onward course to a higher plane of culture.

The Commissioner will take pleasure in promoting the adoption of his recommendation, as far as in his power, by contributions of plant material, and has especially instructed the Western agent of the Forestry Division, Prof. M. G. Kern, of St Louis, Mo., a professional landscape gardener, to correspond with all who desire further information or advice in the design and improvement of the grounds of Educational Institutions. NORMAN J. COLMAN, Commissioner of Agriculture.

FLORICULTURE.

Roses and How to Grow Them.

[Written for the RURAL PRESS by a GARDENER.]

In the first place, let me say that this article is only intended for those who love their flowers, and, loving them, have patience to give them care. Roses, like children, cannot be put off with a slight amount of attention once in a while, but need a constant daily watching and overseeing to insure fine blooms and healthy plants.

Everybody admires flowers; few love them well enough to do the work necessary to produce them, and a great many who say "How I do love roses!" do not love the care necessary to grow them.

There are a great many, too, who say to me, "How beautifully your roses bloom. How do you get such fine, large ones? I am always fussing over mine, yet they come small and imperfect." It is those who are willing to "fuss all the time," but who, through ignorance of what is needed, fail to make their roses do well, to whom I write.

There are a few kinds which seem to grow vigorously or bloom well through every sort of disadvantage in the shape of poor soil and neglect, but they *are* few. As a rule, roses will not do well unless thoroughly cultivated, judiciously watered and carefully watched to prevent attacks from aphis, mildew and the like.

Planting.

If you are about to plant roses, be careful to dig the soil deep and thoroughly soft before putting them in; then give them a thorough soaking, so that the ground is saturated for a foot deep. Then cover with dry earth to keep the ground from packing in the hot sun. It is best to do your planting at night, in order to give the plants the long, cool hours in which to revive. The same rule holds good in watering; always, if possible, water at night, as when done in the daytime the sun packs the earth around the plants, often so hard as to make the task of softening it no small one. Beside this, if the plant is small, in trying to break up the caked surface the roots are very often disturbed, retarding the growth, if not killing the plant. A great many hold, too, that the chill of the cold water on the plant, which is heated by the sun, has a damaging effect, though of this I am not so sure.

Watering.

Do not sprinkle your plants with a mere spray from a rose nozzle—that is time wasted. Give them a thorough soaking-down once a week; it does them more good than a dozen sprinklings. If you have young rose plants come by mail, soak them in lukewarm water for a short time before planting, soften and wet down the earth well, and shade them for a few days. Water freely for a short time, but do not keep them muddy. After their roots have taken a hold in the ground, save all the tea and coffee left in the table-urns, all the grounds left in the cups (even the children's "white tea" added helps), and put around them. I have found this the most delicate fertilizer for tender roses of anything I have tried. Little plants on which it is used, if they are not kept too wet, will bud out and grow amazingly in a few weeks. For stronger and older plants use soapsuds. If you have your washing done at home, keep all the washing suds and soapy water for them. Instead of throwing out your greasy dish-water, take it out and put it around your roses. The grease and dirt only add to the value and do no harm. The trouble is slight in comparison with the benefit to the plants, for soapsuds seem to contain the very essence of roses, so to speak, and the increase of brilliancy in foliage and flower, the rankness of growth and profusion of bloom, will quickly convince you of the truth of the statement if you will try it. Wood ashes and pounded charcoal are also excellent if dug in around their roots, but care must be taken that the ashes are not too fresh, or they will burn the plants, making the leaves shrivel and dry on the edges and the buds come imperfect.

Pruning.

Prune vigorously, and never be afraid of hurting a rose by too much cutting. You may cut it so close that it will take a good while for it to come into bloom again, but when it does it will astonish you by the profusion and persistence of its flower buds. Not only does cutting back throw the strength into the remaining shoots, but it forces the plant to rest for a time from the exhausting process of flowering. In a small garden where there are but few bushes it is advisable to thin out all the old wood every fall (though in addition to this I should advise frequent cutting at the tips as well), but in a large place, where the number of roses is too great to admit of this, a severe cutting back on all sides with a pair of garden shears does quite well enough. This is the method, I understand, which is pursued at Mountain View cemetery, the vast number of plants precluding the possibility of much individual attention.

I would especially impress on amateurs the necessity for this severe cutting back every few months. Without it your roses will give you but few or poor blooms. If a bush has blossomed steadily for a good while and begins to give imperfect or small and scattering buds, take the shears and clip off the ends of the shoots for some six or eight inches. This will rest and strengthen it for fresh efforts in a short time. If your yard is very small and you need to crowd your plants, it may, perhaps, be better to trim them to a tree-shape with a single stalk, but where you have plenty of room it is preferable to let them grow bushy and thick, as it saves staking and they are more apt to be thrifty and vigorous.

Fertilization and Care.

Sometimes a rosebush will seem to be healthy, and yet keep putting out blighted flowers, which rot before they are fully open. It is not always possible to tell what is the matter, and therefore the only thing to do is to have patience and keep trying different remedies. As a general rule, however healthy they may appear, there is some defect, for healthy bushes should produce perfect flowers. Cultivate thoroughly, give them a good wetting-down at intervals, put a little well-rotted manure around them if you have it, prune unsparingly, and wait. When it gets into a healthy condition the bush will bloom in an orthodox fashion, and not before. Some varieties of roses, too, do not bloom perfectly until they attain a certain maturity, therefore if a bush absolutely refuses to give good results after careful attention paid it for some time, do not destroy it, for it may, if you persist in your attention, all at once astonish you by lovely blooms.

Another thing essential to the production of fine roses is the removal of all dead or dying ones as they appear. It is not necessary to set apart a certain day on which to spend hours for this purpose, but when walking among your bushes or picking from them, get into a habit of pulling off the wilted flowers and half-formed seed pods as you see them. The process of forming seeds is a very exhausting one, and should be prevented as much as possible.

Insects and Diseases.

There are many insect enemies of the rose, all of which will generally yield easily to the right treatment if persisted in. Sometimes the young shoots will be perfectly swarming with the small green aphis, causing great alarm in the inexperienced breast, though in reality doing no great harm. These may be gotten rid of by syringing with water in which a little whale-oil soap has been dissolved, or lacking this, strong soapsuds will do very well. If very strong, the plant should be rinsed with clear water. Slugs may be done away with by the same remedies if thoroughly applied. The red spider often attacks roses indoors, though I have never seen him on those outside. In any case, moisture and cold are fatal to him, and a thorough drenching with cold water several times (taking care that the under sides of the leaves are wetted), generally does the business. The mealy bug is seldom very troublesome, but may be killed by the application of a drop of alcohol at the base of the leaf where he nestles.

Red roses seem to be more liable to disease than any other kind, judging from my own experience. As a rule, always plant crimson or red roses in the hottest sun for best results. When planted in a shady or partially shady spot, they are apt to be attacked by mildew—a whitish blight which curls the leaves and retards the growth of the plant. This, however, by careful attention in the way of digging around them, and maybe a little pruning, can generally be overcome or outgrown. Some recommend powdering with sulphur as an antidote for the disease. Scale is sometimes found on roses which grow near fruit trees, and takes a more powerful remedy. Use the kerosene mixture recommended for fruit-tree pests, and the scale will quickly disappear. This kerosene mixture is a remedy for all rose parasites where in severe cases other remedies fail, and used judiciously will not injure even tender plants. This kerosene mixture is made as follows, although this recipe will make a large amount and should be proportionately decreased: Kerosene oil, 1 gallon; milk (fresh or sour), 6 pints; water, 6 pints; add 4 pints of milk and 4 pints of water to the oil, and when the mixture begins to thicken by churning or beating, add the balance. By churning from 15 to 45 minutes the whole turns to a creamy, butter-like substance which may then be diluted in water as much as is desired. It will sour or curdle, but may be stirred up again. One pint of the kerosene butter to six quarts of water is the proportion used on badly affected fruit trees. For roses, 1 pint in about 8 or 9 quarts would be the right proportion. This kills every sort of parasite so far as I have tried it, though its making takes some trouble.

Varieties.

The best kinds of roses for the average small garden are those which bloom constantly and take the least care. The more delicate varieties are very beautiful, but if few can be grown it is more satisfactory to have those few bloom constantly and prettily the year round. The Madame Bezanque of pretty, pale peach color and perfect shape; the Hermosa, a deep rose color, always a good bloomer; the old Cels Multiflora, loaded with blush buds; the Safrano, rich salmon yellow, a vigorous grower and constant bloomer; the White Daily, as its name implies, a daily bloomer; and the sweet-scented, vigorous Jules Margottin, with big, deep crimson buds—these are all satisfactory. Besides these there are a great many which do well with a slight amount of care, and under favorable circumstances bloom beautifully and constantly. Of these I will mention the Devoniensis, Niphetos and La Marque of the white, the Bon Silene, Catharine Mermet, La France and Arch Duke Charles of the pink shades, the Jacqueminot, the Empress of India and the Andre Schwartz in red, the Solfaterre, William Allen Richardson, Chromatella, Isabella Sprunt and Perle des Jardin in the yellow tints.

The number of fine roses amounts to thousands, so that in a small article it would be impossible even to mention them. Those I have named are, however, good, and will in a small garden make a fine showing with quite a variety. Hundreds of varieties may be found in the lists published by rose-growers. I am therefore not attempting to take up the subject of variety in full.

By using the simple precautions I have named, by keeping the bushes well dug around and giving them plenty of sun, by pruning severely and judiciously and watching and studying the causes of sickness in individual plants, there is no reason why those who love roses should not grow them to as great perfection in their own gardens as do the professional florists.

N. Temescal, Alameda Co.

POULTRY YARD.

Timely Notes.

EDITORS PRESS:—After a long rest from following the quill for these columns, I would like to call the attention of those interested to some of the small things about the poultry yard that need looking after, and some of them ought to be brought into daily practice.

Now, first of all I would say that theory looks well on paper, and often sounds well to the ear, but oftentimes that which looks and sounds best in the poultry business is only doomed to have, in the near future, the word failure written for its later end.

To distinguish between practical and theoretical, requires experience; to gain this I would advise commencing with but a few fowls, and let your flock grow with your experience. Too many figure on the theory that if one fowl will do so much in a year 1000 will do 1000 times as much; they go for the 1000 birds, and in 99 cases in 100 fail, where if they had started with 100 fowls they might have succeeded.

Another thing: we are too apt to fail in keeping (particularly with large flocks) fowls, houses, and runways very clean; filth is sure death to fowls; your fowls will die from other causes than the ax if filth is allowed in coops and runways for any length of time.

I really doubt if there is one farmer in 20 on this coast that takes proper care of his fowls to get best results from them; they say it doesn't pay. Well, that is their theory, but it is not so, for there is nothing in the shape of stock on the farm that will pay so well as hens with good care. Many farmers are letting enough slip through their hands each year to nearly, if not quite, pay the taxes, by thinking that hens are of no account on the farm.

By the way, the Interstate law if carried out will be a great help to all on this coast in the poultry and egg business, as it puts a stopper on Kansas and Utah eggs being shipped out here, and while the consumer will have to pay a larger price for eggs, yet the quality will be much better. Eggs that are collected once a week or 10 days in setting time, and then shipped several hundred miles, will not be likely to suit most tastes; yet eggs of that kind have made the price of good eggs go way down years before, till it would tempt one to go out of business in April, May and June. This year is proving better on account of advance in freights on eggs.

Again, as the warm weather is at hand don't fail to provide a plenty of shade and pure cool water, and a goodly supply of feed for your fowls, both old and young, and give them a chance at fresh plowed land, even if you have to use the spade to turn it over.

I find it pays well to go to the meat-market once or twice a week and get bones with a little meat on them, and let the chickens, old and young, pick the meat off, and after this break up the bones as fine as possible with a hatchet, keeping a large, flat stone in the yard to pound them on; don't cook the meat or burn the bones, for you will lose half the good by doing it, and lose your labor beside.

This bone and meat talk is both theoretic and practical. Try it and see for yourself; not for a week, but six months or more, and, my word for it, your old hens will pan out eggs, and young chicks will grow quick and better than any year before. But lest I tire you with too much at once, I will close with the promise of more anon. E. C. CLAPP.

Pasadena, Cal.

POULTRY-HOUSES RULED OUT.—Geo. D. Goodhue writes to the *Willamette Farmer* as follows: Perhaps friends will think that the poultry editor has stepped down from his high ladder when he asserts that a chicken-house is an abominable thing in a poultry yard, and a regular nuisance for at least nine months in the year. We confidently assert that there have been more fowls killed by lice in hen-houses than there have been by coons and foxes in the whole Willamette valley. Imagine, reader, our 16 years fighting lice out of hen-houses, and then having to come down to pure air of heaven and a good fir tree for our fowls to roost in. Imagine further, our mechanical and cozy breeding-houses all torn down and used for other purposes, while a simple roost in the center of each yard about two feet high, and two boards tacked together against the fence and on the ground, forming a box for laying purposes, end our ornamental display of poultry fixtures. We prefer to keep a good Collie dog, and discard our hen-houses ornamented with lice and unhealthy chickens. We find our fowls all healthy and they lay 50 per cent better. Our chicks are raised with but little loss, and we have the satisfaction of knowing that our time is not spent in vain. We have not been killing 10,000,000,000 lice to-day and get up and find 10,000,000,000 at their funeral.

ENTOMOLOGICAL.

The Fresno Wash for Scales.

EDITORS PRESS:—The absorbing and agreeable topic is the great amount of good the late rains have done in reviving sickly looking grain and administering new life to vegetation generally, the wind at present and temperature indicating more humidity.

The prospect for fruit is not so flattering as for cereals and hay. Owing to the great number of scale-infested trees, people thought them beyond saving and dug them out root and branch, and will consequently be deprived of a considerable income from that source, previous insecticides being valueless, as the tough scale killed the trees. But our Nevada Colony neighbor, Mr. N. Stutzman, thinks he has found the dead shot on the crustaceous scale, the remedy having been told him by a neighbor, and is of the following formula:

Tree Wash.

Place in a heater 50 pounds unslacked lime, 20 pounds of French sulphur, 15 pounds rock salt, in 20 gallons soft water; boil until sulphur is well dissolved; when cold apply with spray-pump; can be used hot, before trees are in bud, and will effectually kill the scale and not injure the tree. Mr. S. experimented with this solution while hot on a full-blossomed cherry tree. It burned the beautiful white clusters wherever it touched.

Mr. S. is wonderfully elated over the triumph and this discovery, as he has a fine variety of fruit and depended upon it for his income. This remedy may have appeared in the columns of the RURAL previous and I not have known it, as I have failed to receive several copies. A. L. A.

Temperance, Fresno Co.

THE EFFECT OF CERTAIN ODORS.—The aroma of red cedar is fatal to house-moths; the aroma of black walnut leaves is fatal to fleas. It is a matter of common observation that persons engaged in the business of making shingles from odoriferous cypress timber in malarial districts are rarely, if ever, affected by malarial diseases, and that persons engaged in gathering and distilling turpentine do not suffer from either malarial diseases or consumption. It is said that when cholera was epidemic in Memphis, Tenn., persons working in livery stables were entirely exempt from it. It is affirmed that since the destruction of the clove trees on the island of Ternate the colony has suffered from epidemics unknown before; and in times when cholera has prevailed in London and Paris those employed in the perfumery factories have escaped its ravages.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Display by Pomona Grange, No. 3.

[Written for the RURAL PRESS by MRS. W. D. A.]

At the entrance of the S. J. V. District Fair, Sept. 24, 1886, first to arrest the eye was the faultless lettering, "San Joaquin County," of wheat varnished to gold on an arch of maroon plush; below, on a field of white, evergreens and red berries heralded "Pomona Grange" display, with its abounding plenty.

Around the parallelogram-shaped cottage with four receding tiers of shelves, chief were the 50 jars of varieties of grain, from nearly all soils of the county—some with samples attached, all with name of kind, raiser and locality. A large field, winter sown, on the Calaveras, "Salt Lake Club" yielded 40 bushels to the acre. Barley, bearded and beardless, from 30 to 70. French Camp, sandy, sent fine bald barley. Peat land of Roberts island, fine chevalier. Seven kinds of corn. Large field corn from Bellota and near the Mokelumne; Spanish corn, too, that strikes root as the ground dries and yields without watering. Pink corn, Stockton adobe land, Mrs. Beecher. Rice and red popcorn, which is easily raised and sells well; and, curious to all, an ear of original maize, each kernel covered by a husk but no husk on the ear, from Kentucky—Mrs. McAfee.

Beans of their kind, of which large quantities are raised here for market. Peas of their kind. Seeds of the garden. Sage—a lady once raised and sold $15 worth one summer. Fruit pits. A neat case of 165 varieties of flower seeds, Mrs. Beecher. Immense gooseberries, in acid, green and fresh, Mrs. Root. Don Pedro figs in spirits bigger than evil spirits, Ezra Fiske.

West and north side, jars sealed fruits; two large ones of peaches from Hale's island orchard, Mrs. Hale. On the corner, Mrs. Adams' snowy Bartletts of two years ago.

Above these, pickles and jellies, good and cheap enough to supply an Eastern market. Mesdames J. L. Beecher 36, Merrill 18—in all, 104 of every fruit. Pickles—Mesdames W. H. Post, E. Sabine, C. Allison and others. Mrs. J. Adams, pickled capers, seed sent out by Berkeley College. Above these hung Mesdames Williams and Coggswell's fine sweet and field corn, Mrs. Sabine's fine flaxseed, E. Fiske's Propo wheat, Emde's samples of tobacco and peppers, grasses by J. D. Hoffman and others, branch barberries, R. Howes; sheaves of splendid white Australian wheat, T. E. Ketchum; E. Elliott, seven varieties wheat.

North side, beautiful sun-dried fruit and figs attest the quick drying of this sunny valley. Ten boxes crystallized fruit, Mrs. W. B. West, perfection! Fine samples by Mrs. J. Adams. The large exhibit of almonds by West, Learned, Root, Alling, Ashley, Allison and others showed them to be a profitable tree. W. B. West's fine French walnuts and dried potatoes, good for sea or land journey. Fifty-two kinds of grasses festooned the awning from which hung Black Morocco, Black Prince, Tokay and Hamburg grapes nearly as big as plums, firm for packing, superior for table, from Stockton, Woodbridge, Lodi, Linden and the Mokelumne, by West, Learned, Williams, Woods, Walls, Ketchum, C. Bamert, S. C. Waters. Great clusters of Muscats, by J. Adams, which make fine raisins. Grapes are not watered. General Ketchum exhibited beautiful fruit. Hudson Bros., from fruit raised 2½ miles from Stockton, showed great bunches of grapes, noble white and Crawford peaches, plums and pears. Putnam's nursery, Clements Station, eight kinds of apples that would compare without shame with Eastern apples; also, grapes and Petite d'Agen prunes. Woodbridge made a fine show from her alluvial lands.

Mrs. Overhiser had two tasteful baskets, one each of fruit and vegetables. Mrs. Kuhl had great egg-plants, flax and many fine vegetables to show what a woman can do. D. Sheen, a box of Mohomic potatoes, sweet potatoes, and great squashes from Woodbridge. E. G. Williams, from there, helped fill the tables with Trophy tomatoes and all kinds of vegetables.

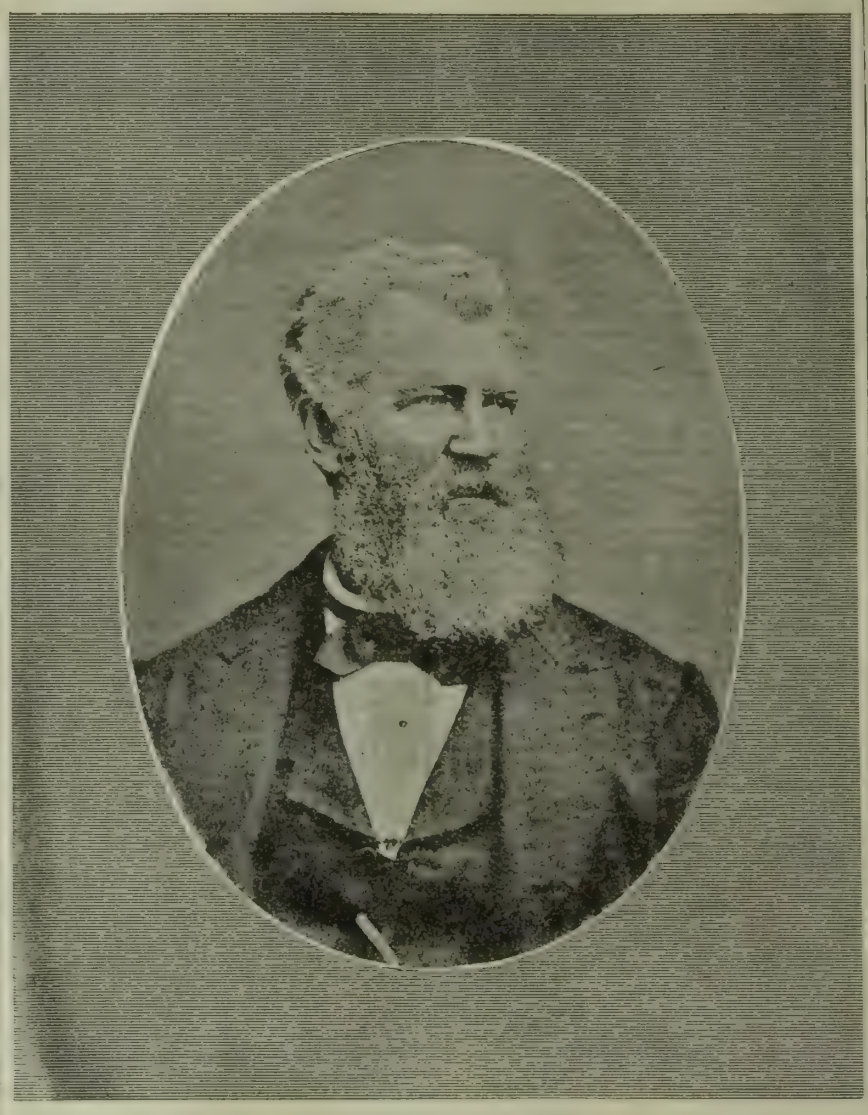
Sperry's mills furnished flour now rated best in the State; also the Crown mills. Five bales of paper from Stockton paper mills. Chicory in all its stages from that factory. Brooms of all kinds from broom-corn raised here. Crates of boxes from the planing-mills. Strong, neat, cashmere-goat mats showed that industry. Beeswax-soap, the veritable soft-soap used to lubricate the wheels of opposition along with the blarney stone, but white enough to wash my lady's dishes or cleanse the family linen, Mrs. Dustin, Lodi.

Pretty, stout mats of rags showed pennies saved. Miss Russel, Linden, had a quilt of 5422 pieces. The show-cases were full of work to please the esthetic eye, and near, Glick's revolving jewel-case flashed the light of pearls and opaline gems, the color of amber and glitter of diamonds in pins and watches, as if to rival nature's perfect fruit and flowers, and show that "Beauty was made the bride of Use." D. A. Learned, Stockton, deserves special mention for raisins, and five boxes of grapes; also our young ladies for their useful and artistic works, and Putnam, Clements station (which held the palm for best pears and apples) for his great bale of hops; and Martin, of Lodi, for hemp as tall and strong as "Missouri hemp" and a cotton-plant with big, opening bolls. T. Clement's 14-feet corn and hops on poles had to be laid down with hollys of 20 feet, with Allison's tall oats, castor beans, said to be obnoxious to gophers, and other view-obscuring stalkers. The famed Lodi melon, with C. Beecher's "Giant" and W. F. Sibley's "Cuban Queen," Stockton, lay near J. D. Peter's bug-destroying Buhach. Near it, Thompson's beets couldn't be beat by even his quinces and grapes from Woodbridge.

The south of the large inclosure beyond the two long fruit tables, was the cynosure of eyes, young and old. Here stood the "Miniature Farm," complete in detail even to "Darby and Joan" enjoying their "own." Got up by Woodbridge Grange with great trouble and considerable expense by Mesdames McIntosh and White, and Mr. and Mrs. E. G. Williams, who kept it bright and fresh with its stuffed poultry and lambs at Stockton. In front on the fruit table, S. C. Waters and C. Bamert showed what Washington Grange with Mokelumne soil can do.

Pomona Grange, No. 3, had just organized, with Ezra Fiske at its head and 12 public-spirited officers; hence had no money to carry on this unselfish work of showing up the many resources of this county till the county Granges stepped forward and bore their ratio of outlay and trouble by collecting and making the most varied show of products in the State. And Mrs. Beecher's lofty zeal and perseverance was the push of the enterprise in the face of people who couldn't see the point of showing without premium, those too mean to give or lend, those too lazy to take the trouble, and those who "forgot" promised articles. But with such men as Ezra Fiske, Hoffman, Elliott and Williams, and such women as Mesdames McIntosh, Adams, Ransey and Williams, who reached into their pockets, obstacles flew like feathers, and the good wrought for the county is appreciated and somewhat remunerated by the society's award of $100 and the Sacramento premium.

In front of this multifarious collection, beneath the cerealia in bottles and bouquets, was fastened a handsome plow of wheat ears by Mrs. E. S. Beecher, Stockton, emblematic of turning the teeming soil to yield its grain and fruit and flowers to feed and clothe the body of man and lift his soul to the Giver of plenty and beauty.



DR. C. GRATTAN, OF STOCKTON.



DISPLAY BY POMONA GRANGE, NO 3, AT THE LAST STOCKTON FAIR.

Dr. C. Grattan.

There are times and occasions in the lives of men that present opportunities, especially in a new country, that develop the highest type of manhood. The subject of our sketch is a pioneer whose sympathetic nature, genial disposition and open-hearted generosity makes him popular among his comrades, and by common consent a leader and counselor in local, municipal and State affairs.

Dr. Grattan is a descendant from the well-known family who have figured so prominently in the history of Ireland. He was born in Dublin in 1824, and with his father emigrated to America when he was one year old. His father, who was a civil engineer, resided in New York City and assisted in surveying the Pottsville & Reading railroad, it being the second one built in Pennsylvania. At the age of 21 he graduated from the New York Medical College. After three years of practice, he emigrated to California, determined to abandon his profession. For a short time he was at the head of a large company in manufacturing lumber, and afterward a very successful miner in "Old Tuolumne." In spite of his determination to give up the practice of medicine, his reputation as a physician followed him, and his sympathetic nature prompted him to devote to the sick and afflicted a large portion of his time, so that he was induced to open a hospital in the city of Stockton, where rich and poor were admitted, without question. He was elected a member of the Council of the city of Stockton in 1852 1854, 1856 and 1872, and not only took a lively interest in municipal affairs, but was very active in procuring State legislation for the advancement of the city of Stockton and the San Joaquin valley.

It is generally conceded that by his efforts and determination as a presiding officer a railroad job was defeated and the city of Stockton saved the sum of $250,000.

Dr. Grattan owns large estates in the San Joaquin valley, and has been prominently associated in several enterprises and industries, among which is the Stockton Combined Harvester Works.

Breeding fine horses and farming have engaged his attention for some years, and in this connection he has invented and patented several agricultural implements. Among his improvements is the band brake for combined harvesters that are in general use. During the late conflict he was a warm supporter of the Union cause, and was among the first to publicly and openly take a decided and notable stand against secession.

He is a member of the San Joaquin Pioneers and has been a member of the I. O. O. F. since 1844. At the first inception of the Grange movement he took an active part, and has been one of its trusted, leading and active members since. He has been repeatedly elected Master of Stockton Grange and a member of the Executive Committee of the State Grange. As a pioneer passing through vicissitudes, with a steadfast faith in the growth and development of the San Joaquin valley and the city of Stockton as a great inland emporium, it has called out the best efforts of his life to consummate his great desire to see this, his chosen home, the seat of empire, and happy homes the length and breadth of this vast domain. He is genial, affable, and generous, ever ready to assist his fellow-men or inaugurate great enterprises to benefit his neighbors or the commonwealth.

The Gridley Monument.

The monument soon to be finished and dedicated in Rural cemetery, Stockton, in honor of the hero of the famed "sanitary sack," is thus described in the *Independent* of 19th inst., according to the plans and specifications:

The monument is to be made of California granite and Italian marble, and will be 20 feet high. The bottom base is to be of Penryn granite, 6 ft. square by 2 ft. 4 in. high, neatly finished with a patent hammer, 8 cuts to the inch. The second base is to be of Crystal Lake or Rocklin granite, 4 ft. 11 in. square, by 1 ft. 8 in. high, neatly finished with a patent hammer, 10 cuts to the inch. The third base, of Italian marble, 4 ft. 1 in. square, by 1 ft. 6 in. high. The same to be polished with the name of "Gridley" inscribed thereon in letters raised 1 inch. The die to be made of Italian light vein marble, 3 ft. 3 in. square by 5 ft. high. The columns and die to be cut in 1 piece and polished. The inscription is to be in finely cut raised letters. The plinth of Crystal Lake or Rocklin granite, 3 ft. square by 10 in. thick, polished. The cap of Rocklin granite, 3 ft. 11 in. square by 1 ft. 10 in. high. The face of the cap polished on four sides.

The figure to be made of the best light vein Italian marble, 2 ft. 6 in. by 2 ft., by 6 ft. 10 in. high. The same to be cut from a photograph of Mr. Gridley, so as to closely resemble him.

The concrete foundation is to be 6 feet 8 inches square and not less than 6 feet 6 inches deep. The monument will be reared in the Grand Army plat, which has been graded for the purpose. The contractors, Knealey, Spellman & Co., have completed the foundation in a manner entirely satisfactory to the committee, and are only waiting for the arrival of the statue from Italy to finish their work.

The Secretary of the Treasury has just written the committee that there are ample provisions in the statutes to authorize the free entry of the statue. An effort is also being made to secure from Alcatraz 14 pieces of ordnance, to be used in further ornamentation of the plat in which the monument is to be erected; and as Gen. Howard and ex-Congressman Louttit have interested themselves in the matter, there is some hope of obtaining the coveted cannon.

The collections already made lack but $77 of the amount needed to pay for the monument, and there will probably be no trouble in obtaining the balance. The veterans intend to give two entertainments at the Avon theater on the evening of Decoration Day and the evening following, the proceeds, after the expenses of Decoration Day are paid, to be turned into the Gridley fund.

Birthday Greetings.

An agreeable and genuine surprise was tendered Mrs. Eliza Brooks at the home of her daughter, Mrs. Jones, on Tenth street, Oakland, on Wednesday evening of last week, by members of Temescal Grange, of which she is the eldest member, having completed her 82d year.

Songs, recitations, instrumental music and speeches, interspersed with general conversation enlivened with good humor and ready wit, made the evening very enjoyable to all. A noticeable feature of the occasion was the presence of four generations of Mrs. Brooks' family, including three great-grandchildren. During the evening refreshments were served by the hostess, Mrs. Jones, assisted by her daughters and little granddaughter.

Until a late hour, the friends lingered with the noble woman whom all delighted to honor as one who, having buffeted the vicissitudes and changes of 82 years, stands erect, cheerful and happy, growing old gracefully and beautifully—a grand example for all to follow. The esteem in which she is held found expression in substantial tokens and varied gifts left by many friends.

EDEN GRANGE has invited Temescal Grange to join in the conferring of the fourth degree on a class of five, meeting at Haywards at 10 o'clock A. M., Saturday, May 28th. Pleased to note the progress of their nearest neighbors, Temescalites will delight to respond to so agreeable a call, even on short notice.

BRO. SAMUEL CLIFF, a member of Temescal Grange, has been appointed justice of the peace and notary public at Creston.

Gridley and His Sack of Flour.

[Written for the RURAL PRESS by MRS. W. D. A.]

In the spring of 1864 fairs were held all over the land to recruit the funds of the Sanitary Commission, which had already used over $3,000,000 in following up the advance in readiness for battle; in bearing, from the heaps of dead and dying, the wounded to quarters of comfort; and on the retreat, ministering to agonized men who begged for water or to send a few words home.

Meanwhile, the need for money to keep up the work was pressing, and none felt the piteous appeal of soldiers helpless, hapless, on the field, more than the sympathetic war-Democrat Ruel Colt Gridley, who bethought him to auction his sack of flour for the commission—each one buying it, to put it up again for sale. He had borne it, trimmed with streamers and flags, through the main street of Austin, from Upper Austin to Clifton, a mile and a quarter, to the air of "John Brown," to pay a wager that the "Democrat nominee for mayor would be elected."

I am indebted for the facts to an ably written pamphlet issued by Rawlins Post, G. A. R. Dr. Herrick accepted the wager, and if he lost was to carry the flour from Clifton to Upper Austin to the tune of "Dixie." A witness of the jolly good time says it was the best of fun, enjoyed by old and young in those happy-go-lucky mining days. Rich and rabble made up the procession, lookers-on cheered and steam-whistles blew.



THE GRIDLEY MONUMENT.

First came the city officials elect; then 36 mounted men followed by 10 musicians; then Dr. Herrick carrying Mr. Gridley's hat and cane; then the tall, shapely form of Mr. Gridley himself, with the flour from his store; beside him, his son of 13, with a flag; then the Democratic City Central Committee, two of them carrying banners, another, a pole with a great sponge at the top, and another a broom, followed by the delighted people; while boys and Indians brought up the rear. The crowd lustily rang out the song chorus and encouraged Mr. Gridley in true miner spirit. At Clifton, Mr. Gridley, with the dignity of defeat, gave up the flour, and Dr. Herrick took it with a winner's courtesy. The flag was surrendered and the sponge handed over, signifying the right to absorb all offices; the broom, too, acknowledging a clean sweep.

After expressions of mutual good-will arose the query, what to do with the flour? The proposition to make Republican griddle-cakes, allowing Democrats none, drew protests of fealty to the Union from Democrats. Mr. Gridley tested the crowd's vaunted loyalty by the plan of auctioning the flour for the soldiers.

Wild cheers greeted this proposal. T. B. Wade, auctioneer, cried off the first bid to Mr. Gridley for $300, a Republican $350; Mr. Buel, beaten candidate for mayor, bid a certificate of the Indian Department, $1115, but all bids were payable in gold coin, and the munificent offer was rejected. Five thousand dollars was paid over and two blocks of lots in Watertown—one given by Mr. Buel.

With Mr. Gridley on a fine horse, the procession formed again and escorted the hero in triumph home. He paid the express charges and sent the money to the commission.

Gold Hill wanted a chance, so on May 16th a procession, with Mr. Gridley, formed through the main street to Maynard block, where "silver-tongued" Tom Fitch spoke, and the flour realized $5225. The procession was christened "The Army of the Lord," as it marched through the canyon with flags and music to Silver City, where in all $1375 was raised; thence to Dayton, where $1847.50 footed up for the fund on Carson river.

Through all the Washoe mines it was sold, till $22,000 more was placed to the credit of the Midas sack of "Austin Sanitary Flour." Virginia City outdid all others, contributing $12,995 in coin and considerable mining stock. To Sacramento and San Francisco he took the magic sack, selling and reselling it, till when he started East $63,000 stood to its account, with three blocks of lots in Austin, worth $7000, and a house and lot in Dayton.

Through all his journeying, he bore his own expenses and the expressage of money, and raised in coin $275,000, in all nearly $300,000.

Returning with neuralgia in his limbs, to retrieve his business losses, he had to be moved on a bed to a warmer climate. Getting a little better, he opened a small store, which he left his family, at his death, in Modesto, Nov. 24, 1870.

Religion and love of fellow-men was the basis of his life. From his seventeenth year he had been a member of the Methodist Episcopal church; sometimes class leader, and sometimes Sabbath-school teacher.

In our country's need he raised this unrivaled help; yet rich in peace, dulled by plenty, she heeds not the call for a few thousands for the wife who cheered him on and the children made poor by the father's patriotism and early death; and to Stockton, unaided, is left the honor, under Rawlins Post, G. A. R., of moving his remains to the army lot and erecting a monument, where around him will sleep his family, and around them the soldiers he loved.

His work, more glorious in its results than story or granite can tell, does him infinite honor; yet we may perpetuate our gratitude through coming generations by rescuing his name from oblivion, and his deeds shall be told as long as our country's history is read.

His eldest daughter was buried a few years ago. The second one, with health broken by going out to sew steadily, has gone, accompanied by the youngest daughter, to the little mountain ranch of the son, who can only take care of his own family. Her doctor hopes that the air and rest will save her from rapid consumption. The youngest daughter worked in a candy factory.

Stockton, May, 1887.

FROM SAN LUIS OBISPO COUNTY.—Brother J. V. Webster spoke at some length in Temescal Grange, on Saturday last, giving an interesting account of the progress of improvements at Creston, where he is cultivating a fruit-farm, and Brother Cressy is establishing a large stock ranch. The growth of trees and vegetables has proved very favorable by good cultivation. The summer-fallowed crops now growing alongside of winter-sown grain are quite surprising to some of the old inhabitants. Brother Webster's remarks were listened to with much interest, and created a desire on the part of many to visit that rapidly developing section of the State. Interesting remarks were made by other Patrons, and a recitation given by Miss Jessie Weed. The meeting was well attended, and regrets expressed that Brother Webster must so soon return to San Luis Obispo.

State Grange of Oregon.

The State Grange met in the Capitol at Salem, May 24th, with a full attendance of delegates from Oregon, Washington, and Idaho.

Gov. Pennoyer welcomed the Patrons, remarking that it was peculiarly appropriate for the Chief Executive officer of the State of Oregon to bid the State Grange welcome to its Capitol, inasmuch as agriculture was by far the chief industry of the State. He alluded to the fact that in the earlier days of the republic, agriculture was the most profitable industry of the nation, but now it was the least profitable. He attributed its present condition to vicious class legislation of Congress, which had always been adverse to the farmer. He quoted figures from the last census, showing that with more than $10,000,000,000 invested in agriculture, the yearly products only amounted to $2,000,000,000, while with less than $3,000,000,000 invested in manufactures, the yearly products amounted to $5,000,000,000, and that the average profit of farming was only 12 per cent of the capital invested, while the profit of manufacturing exceeded 36 per cent. He said that while the manufacturer was protected by law from the competition of cheap labor, the farmer had to sell his wheat in competition with such cheap labor. He alluded to the great wrong perpetrated by the Federal Government; a wrong unparalleled in all history, of collecting its taxes from the industry instead of from the wealth of the country, and declared that the farmers should unite with the laboring men in demanding a graduated income tax, by which the wealth of the country would be compelled to aid in bearing the burden of taxation.

Grand Master R. P. Boise's annual address showed the Order to be in a flourishing condition in the northwestern jurisdiction.

The Grange in Nevada County.

The Grass Valley *Tidings* last week, noting the movement to establish a subordinate Grange at Nevada City, took occasion to say a good word for the Order, as follows:

The farmers and fruit-raisers of this county are awaking to a realizing sense of their importance as a great factor in the future prosperity of the pioneer mining section of the State. And they are also beginning to realize that to exert the most good, to obtain the best prices for their produce, in fact to accomplish the best results in anything and everything they undertake, organization is imperative. The fruit-raisers in particular are interested in this matter. In the last year or two the fruit-raising industry has come to the front as being peculiarly adapted to the lands and climate of Nevada county, and the fact has been evolved that "there's money in it."

As an evidence of the interest being taken in the matters spoken of above, we will state that the Grass Valley Grange, a fraternal organization of agriculturists and fruit-raisers—Grangers, as the name implies—is increasing its membership at every meeting. Many who withdrew from its ranks years ago have returned, and many new recruits have been gained. The Order is strictly non-sectarian and non-political, its sole objects being to promote and foster agricultural and fruit-raising interests, and, by co-operation, secure special privileges and immunities for its members.

There can be no reason why such an organization should not be effected at the county seat. Its members, by co-operation, by counseling together, by precept and by example, would, in a few years, make a decided change for the better in the aspects of things in Nevada township. As that township also enjoys a large and steadily increasing fruit business, the influence of a Grange cannot be overrated.

DANVILLE GRANGE'S young people gave a party on the evening of the 13th. "M. J. S." writes the Martinez *Item* that the hall was decorated beautifully with long festoons of flowers, under which 25 couples kept time to the merry strains of Schwartz's band.

WHEATLAND GRANGE hold their annual strawberry festival to-day (28th), and have kindly invited Yuba City Grange to participate.

Residence of Andrew Wolf.

In our Home Circle columns upon a following page may be found an engraving of the elegant modern-style residence of Andrew Wolf, of Stockton. The many friends of Mr. Wolf and his estimable family, who have not been able to visit them in their home, will be glad to know that they are so nicely domiciled. Mr. Wolf is an old resident of Stockton, and has been prominent in various industrial enterprises. He is a pioneer member and Past Master of Stockton Grange, and a popular business man of long standing success. A sight of his home should teach all the duty of expending liberally and tastefully, if it can be afforded, to place one's family in the midst of delightful surroundings.



On San Joaquin.

On San Joaquin, on San Joaquin,
How rolls the tide of living green;
How sweeps the wind through billowy grain,
How falls the long-lent loving rain.

O San Joaquin, so wide and free,
How swells thy distance like the sea!
Soft winds that love thee, speed away,
No barrier waits thy perfumed sway.

O gentle skies, so blue above,
The valley of my leal and love,
How fair art thou, though burnished clear
Or hung with rainclouds drooping near!

On thy horizon far and fine,
The mountains stand in dim outline,
Whence rivers slow descend, to keep
Their strong long currents to the deep.

Oh, toss thy billows, San Joaquin,
Thy lifted waves of sunlit green.
O flowering stretches, glow and shine,
The homage of my heart is thine.

I know how sweet the mornings rise,
Borne westward from the radiant skies,
With misty vail, all fresh and fair,
Entangling bird songs in the air.

I know how calmly night looks down
Clear-visioned in her starry crown,
Whose moonlight all the distance fills,
And trails the far-off western hills.

On San Joaquin the rustling grain
Bears on the joy of toil's refrain;
The vines sway low, and clover meads
Unroll the wealth that toiling speeds.

On San Joaquin! On San Joaquin!
The world thy beauteous tides has seen
The circling years shall bring to thee
Great glory for thy destiny.

—*Lillian H. Shuey, in Record-Union.*

Kitchen Angels.

[Written for the RURAL PRESS by MRS. J. M. K.]

We frequently see the busy housewife and mother spoken of lately as a kitchen slave; but when a writer in a late RURAL alluded to her kitchen help as a "ministering angel," many thoughts were suggested to me. Dare I express them?

It seemed a strange reversing of terms, that one who worked in her own home for the comfort of her own loved ones should be a kitchen slave, while she who worked among strangers for hire was a ministering angel.

Who would not wish to be the angel of the kitchen as well as the lady of the parlor? What higher aim can we have than the training of our daughters to bless through the simple ministry of the kitchen?

In what sense can the mother be the slave, the help, the angel? Doubtless because through ignorance and want of strength the poorly executed work was a burden to which conscience, like a cruel taskmaster, was ever urging on.

The angel we suppose knew just how, and was endowed with buoyant health, loved her work, hence seemed only stooping to bless.

I do not read of kitchen trials without sympathy, knowing by experience the whole sad story of overwork, and the difficulty of getting desirable help at such wages as a small farmer or mechanic can afford.

How delightful it would be could we each install in our kitchen an angel. Then our daughters might spend their days with music, painting, and embroidering, the mothers find relaxation from intellectual pursuits working in gardens of roses and lilies. But this Utopian condition of things will not come in our day.

While the farmer pays the taxes he does, and sells his products for so small a margin of profit; while the mechanic and day-laborer toil so many hours for scant wages, shall their wives feel that fate is unjust to them if they must do the housework?

It is no more than our rightful share. That so many of us find it a heavy burden demands inquiry as to causes.

First, insufficient training for the responsibilities we have assumed.

Second, less health and strength than our grandmothers had—than a well-endowed woman should have.

Third, too great demands of fashion, in dress and living.

Sisters, can you candidly scan this list and not acknowledge that in some combination of these causes your difficulty lies?

One of the most serious problems for the mothers of to-day is "How shall we raise our daughters so they can carry life's responsibilities more easily?" The subject of training for these includes right views of labor and its relation to higher culture.

Often as we hear it asserted from platform, pulpit, and newspaper, that labor is honorable and the workman worthy of all respect, we still find the sentiment cropping out almost everywhere, that a knowledge and taste for housework is not natural for ladies of refinement and education—that it is ever a cruel fate that exacts it from them. This sentiment fills the young housekeeper with self pity, until she unconsciously poses as a martyr for the sympathy of others. The same is to blame that nearly all the intelligent women who would be companionable in our homes, prefer harder situations at starvation wages.

The most weighty and difficult part of our problem is that of guarding and promoting the health of our daughters that they be not bankrupt in vitality before middle life.

The third cause of our slavery, demands of fashion in dress and living, we can all at once deliver ourselves in some degree from this bondage. It is gratifying to know so many are working along this line. The demands must be brought down to the capacity of the average woman. Experiences in this line are all interesting. Still I dare not give my own lest Mrs. Grundy read this page. As results, however, I secure from one to two hours a day for reading—have just finished the C. S. L. C. readings for the year, find it very interesting, and hope to continue.

Life's duties present themselves to my view rather differently now, viewed through spectacles.

First seems your own health, as so much hinges upon that. Next some means of continued mental improvement. There must be some way found out of this slavery of ceaseless toil.

If we can afford to engage an angel, by all means let us do so, being sure to accord her the consideration she deserves. If not, after pressing what service each can give from husband, hired-man and children, let us, if need be, as some one has said, "Eat off the head of a barrel and dress like John the Baptists" all the days of our lives, rather than work ourselves into an early grave.

Tracy, Cal.

BETTER LATE THAN NEVER.—A recent convert of the Salvation Army went into a shop in Sedalia, Mo., and asked the proprietor if he remembered what axes were worth in 1872. "About $1, I guess," was the reply. "Well, then," said the Salvationist, "I want to give you a dollar. In 1872 I stole an ax that was displayed in front of your store."



RESIDENCE OF ANDREW WOLF, ESQ., OF STOCKTON. [For description see preceding page.]

The A B C of Astronomy.

[Written for the RURAL PRESS by ASTRON.]

It is a very humiliating fact that many persons of somewhat enlarged culture are utterly ignorant of the simplest elementary truths of the science of astronomy.

Many years ago I was aboard a steamer on the Mississippi river, admiring the rising moon, and observed to a gentleman fellow-passenger: "What a magnificent sight it must be to the inhabitants of that little orb, if she has any, to observe an earth rise, a body appearing to them four times the diameter the moon appears to us; or, as the diameter of a large dinner-plate to that of a gentleman's watch."

What was my astonishment to have this man, respectably dressed in black, in the garb of a minister of the gospel, turn upon me like a demon, covering me with the vilest abuse, so as to attract the attention of a large crowd on board, who inquired what was the nature of our violent disputation. I recited to them my little essay on the moon and earth, which had caused this tempest in a teapot, and for the remainder of the voyage I became the lion of the party. My opponent was in the sulks till the last day of our being on board, when he came to me extending his hand and saying: "Young man! I have forgiven you, and have prayed to God to forgive your heresy. Be not wiser than the word of God. Recollect that moon that you lectured on, a few nights since, in company with the stars, are only lights for our earth. Does not the holy Bible say, in the 16th and 17th verses of the first book of Moses called Genesis, 'And God made two great lights, the greater light to rule the day, and the lesser light to rule the night; he made the stars also. And God set them in the firmament of the heaven to give light upon the earth?'"

We parted, he commending me to the mercy of God, and I pitying him for manifesting such hopeless ignorance.

I could add many more examples to illustrate and confirm my assertion. I know a professor in a medical college, an expert in sawing off legs, cutting for calculi in the bladder, etc., yet standing appalled before the mystery of the fixed position of Polaris, and why Venus is sometimes a morning and sometimes an evening star. This professor was my teacher in anatomy and surgery, but became my pupil in elementary astronomy.

I owned at that time a refracting telescope, a little over three inches objective in diameter. I took the same to his house and showed him and his estimable wife Jupiter and his four moons, and Saturn and his rings (the telescope was not powerful enough to show his moons), also the moon nearly full; and if I told you the intense surprise and pleasure these good people manifested, you would perhaps hardly believe me. It opened to them a new field of thought. I explained, as far as I was able, how astronomers arrived at the present conclusions in astronomical science. This is what I purpose doing in these elementary lectures. I do not intend them to supersede regular treatises on this noble and fascinating science, but only to give a mere glimpse of the promised land, so that readers of this newspaper, ignorant of this great department of human knowledge, may be diverted for a moment from reading an account of racehorses, baseball and Interstate Commerce Acts, and perhaps cut out these simple offerings and place them in a scrap-book for future reference. Amen.

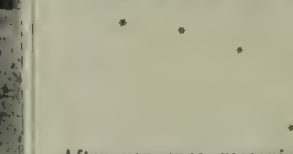
All the sciences appear to have arisen from chance or mysticism—witness astronomy from astrology, chemistry from alchemy, galvanism from a frog, steam-power from the lifting of the cover of a teakettle of boiling water, geology from the observation of the rending of rocks, displaying minerals, etc. In fact, geology for a long time was considered only a branch of mineralogy until such men as Humboldt, Werner and Lyell changed its place in the great circle of the sciences, ennobled it, and made mineralogy a subordinate science.

Astronomy is a much nobler science than its title would indicate. We owe the name to the Greek language; *astron*, a star, and *nomos*, a law or rule. Modern astronomy, with its instrumental appliances—the telescope, spectroscope, camera obscura and the higher mathematics—enables puny man to measure and weigh our sun and his attendant orbs; to gauge the heavens and tell us what the various configurations the constellations and groups of stars will assume millions of years hence, pierce the mysteries of the great Cosmos, showing new systems forming from nebulous masses in space, and according to some astronomical pessimists, not only their birth, growth, and maturity, but their old age, decay, and final death. Surely such a science is worth studying.

In this preliminary lecture let us try to get on a little with "A." First, let us look up into the great concave above us; wait patiently for an hour or so and observe. We shall soon be rewarded by a comparative familiarity with those brilliant gems. We shall soon notice that some are much brighter than others. If we could be transported on the wings of light to any and every part of our planet, we should find only about 20 of these very effulgent orbs in space, called stars of the first magnitude, and among them one particular star outshines them all. It is named Sirius in the constellation of *Canis Major*, or the Big Dog.

Now borrow or buy a pocket compass. One end of the needle with the arrow-point will direct you to the north. Lift your eyes in that direction to the heavens and nearly midway between the horizon and the point directly over your head, you will notice a star not a very bright one; this is the pole star, "Polaris," in the constellation of *Ursa Minor*, or the Little Bear.

If you continue gazing lower down toward the horizon, you will notice a particular group of stars, named *Ursa Major*, the Great Bear, the Great Dipper, or Charles' Wain. Seven of the stars of this group form the most remarkable constellation in the northern heavens.



After you once recognize them, they will never be forgotten. With this group you will be able, by what is technically called alignment, similar to a base line in surveying, to make acquaintance with all the constellations in the northern and many in the southern hemisphere.

Mr. Bowser's Experiment.

Well, the long agony is over and our pig is dead. One day last fall Mr. Bowser suddenly turned on me with:

"Mrs. Bowser, why don't we keep a pig?"

"Because we have no pen, no place for one, and don't want the nuisance."

"We have plenty of room for a pen. I can make one in half a day, and we might as well raise our own pork as to buy it. The kitchen stuff you give away would fatten three pigs."

I talked and argued, but it was no use. I brought up our poor success with hens, but he choked me off with:

"Mrs. Bowser, perhaps you may not know the difference between a lean, old, heartbroken hen and a choice pig, but I do and we shall keep a pig."

"Well, don't ask me to bother with it."

"No one intended to! On the contrary, I hope you will keep as far away from him as possible. You can also buy your own pork chops next winter."

During the next three days Mr. Bowser was pig-hunting and pen-building, and at length a terrible squealing in the alley informed me that his purchase had been made. I went out after a bit and found a thin, cadaverous, wild-eyed beast, weighing about 50 pounds, in the pen.

He uttered a "woof!" and made a spring at me as I looked over, and Mr. Bowser came from the door and roared out:

"What are you doing there? Do you want to scare that pig to death?"

"I was simply looking at him."

"Well, you simply keep away for awhile! That pig is strange. He's got to have time to look around. Any one knowing bran from broomsticks wouldn't go rushing up to a pig-pen like that!"

"What breed is he?"

"Shorthorn, of course. You don't think I'd fool away my time on a common pig, do you?"

"Why, I never heard of a Shorthorn pig before."

"Oh, you didn't! There are a great many things you never heard of, Mrs. Bowser, and probably never will!"

"He's very thin."

"Thin! Of course he is! If he was fat he couldn't hold half our kitchen stuff."

"Just hear him take on!"

"Go away with you! It's your voice that excites him! Mrs. Bowser, if that pig bursts a bloodvessel you will be to blame for it, and it will cost you $8 in cash!"

I went into the house and the pig seemed more quiet. Mr. Bowser fed him corn, potatoes, apples, swill, cold biscuit, a rib of cold beef, peanuts, grass, half an orange, and a banana. When he came in he rubbed his hands and chuckled:

"Seems almost like being on a farm again! I ought never to have been anything but a farmer."

We had scarcely finished supper when the pig began to squeal. Mr. Bowser went out and walked seven times around the pen without being able to find anything wrong. The pig had a good bed and an abundance of food, but he stood in the middle of the pen and kept up a doleful squealing, and it was not until Mr. Bowser knocked him down with a fence-picket that we got an interval of rest. He squealed from 8 to 9 without a break, and when Mr. Bowser came home at the latter hour, he punched him with a hoe-handle and secured another respite. We had just got to bed when the doleful music began again.

"He's the uneasiest pig I ever saw," I ventured to observe, "and I wonder you didn't get some other breed."

"Mrs. Bowser, did you ever own a pig, shoat or hog in all your life?"

"No."

"Then don't give me any more talk! When I want your advice I will ask for it."

"But is he to squeal all night?"

"If he wants to."

I think he did. He got a little hoarse about 2 o'clock in the morning, but he managed to make his voice heard all the same. Mr. Bowser went out and fed him cut loaf sugar and some Saratoga potatoes, and for an hour or two he stood in the corner of the pen and seemed buried in reflection. Then he suddenly appeared in the back yard and rooted up six dollars' worth of new sodding and two beds of flowers, and the cook and I had no sooner got him into the pen than he began squealing again. During the afternoon Mr. Bowser remained home and worked the fence-picket racket so vigorously that by night the pig got it into his head that the less he was heard from the better.

The next day the animal got out twice, and it didn't take but 12 of the neighbors to get him back. After the first night and from that to the night of his death, he rested one hour and squealed the next, as regularly as clockwork. The day he didn't get out of the pen was a dull day in our house. The night we didn't wish him dead and threaten to murder him in the morning was a rare exception. On several occasions I said to Mr. Bowser:

"I believe that man cheated you on the pig. I never saw an animal act as he does."

"Cheated me! Oh! yes. I've lived in this world 45 years to be taken in by a farmer who doesn't know whether Julius Cæsar was a blacksmith or an alderman!"

By and by the pig got his appetite, and a pail of swill was only a mouthful for him. Mr. Bowser sent up corn and meal and buffalo feed and several other sorts, but the more we mixed the more the pig ate, and the more he ate the thinner he got. It somehow got out that we had a Shorthorn pig, and, after hearing hundreds of comments from people who sneaked up the alley to see the creature, I said to Mr. Bowser:

"I can't find anything in the agricultural papers about Shorthorned pigs."

"Oh, you can't! Did you find anything about a slipshod woman going around the house with her mouth full of hairpins and her ears open to catch all the gossip?"

That was the last time I ever mentioned the pig to him. I slipped out to the pen now and then and saw that the beast was growing thinner and hungrier and more wild-eyed, and my ears told me that his squeals had become four tones sharper. The other morning as we sat down to breakfast the cook announced that the Shorthorn was a corpse.

"What! dead!" shouted Mr. Bowser.

"Yes, sir."

"Then, Mrs. Bowser, you can countermand that order for the cloak! You were determined from the outset to drive that pig to death, and you have finally accomplished it!"—*Detroit Free Press.*

YOUNG FOLKS' COLUMN.

Fables.

[Written for the RURAL PRESS by "NETTLE."]

I.

The Lion and the Men.

A lion was once walking in the edge of a forest, when a wounded stag called to him and begged him to put an end to his sufferings. The lion was not hungry, but was perfectly willing to kill the stag, and did so, afterward walking off. He was soon pursued by a party of men, and not being able to escape called to them that if they would spare him he would never again trouble either men or men's property. The men retorted: "We have found a noble stag just slain by you and left. Do you suppose you would find it possible to keep your promise? It is best you should die."

"But," the lion said, "I killed that stag only because he was in pain from a wound and wanted me to end his painful existence. You can see for yourselves that what I say is true, because I did not attempt to carry off the carcass."

The men smiled in derision, and immediately decided that what the lion said was not true, because it did not sound reasonable. They attempted, therefore, to kill him, but, making extra exertions, he succeeded in escaping. Wanting revenge, and knowing the men would return for the stag, he hastily went by another route and hid the stag in the bushes, and then, as he lay concealed, enjoyed the pleasure of seeing the men surprised and disappointed at not finding the stag.

Moral: The world may judge wrongly, yet be not thou alarmed; the right shall eventually triumph.

II.

The Spider and the Fox.

A spider was once making a meal off a fly when a fox watching her said: "Strange you cannot let a poor, worthless, innocent fly live! What harm did that little creature ever do you?"

The spider replied: "I saw you carrying home a hare yesterday; you are supposed to have superior wisdom, but what were you going to do with that poor, innocent creature?"

The fox did not immediately reply, and the spider continued: "We each sustain life in the way it was intended we should, but if you think a reform is needed your efforts may have more weight if you reform yourself first."

Moral: First be sure that you do not need just as much as they the advice you give others.

III.

The Small Birds and the Hawks.

The smaller birds once held a convention to devise measures by which they could protect themselves from the hawks. One after another suggested plans, but none were thought worth adopting, until finally a solemn-looking bird rose and said: "It seems to me, Mr. Chairman, that the best way to protect ourselves from the depredations of the hawks is for us to color our feathers gray, and then as we shall be less conspicuous the hawks will not be apt to catch as many."

This advice was considered good and was carried into effect, but after a very short time the birds found themselves in a worse strait than ever, as now they could not, at a distance, distinguish between friends and enemies, and when the hawks had approached near enough to be identified they were too near for the small birds to escape.

It was then found that the bird who had given what they thought such good advice was a young hawk, who had disguised himself for the purpose of entrapping them.

Moral: To judge by appearances is far more than foolish; it is dangerous.

Haywards, Cal.

What Florence Thinks of Fresno.

DEAR EDITOR OF THE RURAL:—We have just moved to Fresno City and we are delighted with the place. It has beautiful flower gardens, and beautiful avenues lined with beautiful poplar trees. We live on Poplar avenue. Fresno City has seven churches and a beautiful courthouse. It has two schools. The public school has about 800 pupils.

The country around Fresno City is occupied with beautiful vineyards; among them are the Fresno vineyard, the Eisen vineyard, the Barton vineyard, the Butler vineyard, and others that are too numerous to mention. There is quite a tide of Eastern immigration coming into Fresno every day.

Papa has been taking your paper for five years; we would hardly know how to get along without it. It is a welcome visitor to our house. Papa is trying to get every one to take your paper. You will please excuse the shortness of my letter. I will try to write more the next time if you think this letter worthy of a space in your columns. This is my first contribution to a paper. FLORENCE POOL.

The Story of the Golden Chain.

[Written for the RURAL PRESS by HUBERT CHAPIN.]

I was lying snugly beneath the earth with some of my companions, when I felt a dreadful pain. I had just enough time to look around and see a peculiar creature with some kind of a tool pegging away at me.

He soon found my comrades, and dragged them from their hiding-place. We were then carried up out of our home in a kind of box. Some of these creatures then took us to some kind of a place where they melted us in a large kettle. Then some stuff came out of us and settled at the top. The creatures called this dross. We had to go through innumerable processes before we felt very comfortable. After a good deal of torture, we were formed into little ringlets. We were afterward fastened together and received the name of The Golden Chain.

Where has the Cent Gone?

A goes to market with 30 eggs and sells 2 for 1 cent, receiving 15 cents. B also sells 30 eggs, but at the rate of 3 for 1 cent and receives 10 cents. C goes with 60 eggs and sells them at 5 for 2 cents. Thus C receives 24 cents for the same number of eggs sold at the same rate as A and B combined, while A and B receive 25 cents for theirs. What becomes of the remaining cent?—J. H. WHITE, *Danville.*

Answer next week.

A Giant Oak.

From the frequent mention of our monster redwoods and big trees, and the pictures of large logs from these trees, one at a distance might imagine that we do not have other large trees. The engraving on this page shows a giant oak which grew about two miles from Stockton. The size and weight of the monster may be inferred from the host of animals mustered to transport it. Large oaks are quite numerous in some parts of our great interior basin and give the country a fine, grove-like appearance.

BIG DAMS.—Among the largest dams in the world for the purpose of storing water for mining purposes are the dams in Nevada. One is 425 feet long and 100 feet high; another is 576 feet long and 75 feet high.



A DEAD MONARCH OF THE PLAIN AND HIS FUNERAL PROCESSION. *Photo. by Morosco Bros.*

DOMESTIC ECONOMY.

A Grange Essay on Bread.

Mrs. Lizzie McCormack, of Glendale, Ohio, recently read the following at a local Grange meeting:

To make good bread, three things are essential—good flour, good yeast and the proper amount of heat to produce fermentation.

I am now speaking of making bread in the winter, as in the summer, if your flour and yeast are good, it is sometimes difficult to keep the sponge from souring. Having my flour and dry yeast ready in the evening, I boil three large potatoes, pour the water off into the yeast crock, mash the potatoes very fine, and add the water; stir in flour until quite thick. When this is milk-warm add to it the yeast-cake that has been soaking in a little warm water; or in place of the cake I take a teacupful of the liquid yeast and add to the potatoes and water; then stir in my flour. This amount will be sufficient for eight loaves.

Place the yeast crock where it will keep moderately warm over night. In the morning sift the flour and put it in a warm place to take the chill off; this will hasten the bread rising.

When the flour is ready, pour the yeast on the flour in the bread bowl, rinse the crock with lukewarm water, or, better, sweet milk, and add this to the yeast with sufficient salt to flavor and a lump of lard as large as a hen's egg; mix quite stiff, and knead thoroughly, and place to rise.

When sufficiently light, make out into loaves. Right here, many make the mistake of using too much flour. If the yeast has been good, and the dough kneaded to the proper consistency, it should be smooth and elastic, requiring only a suspicion of flour on the board to mold the loaves.

As I place the loaves in the pans, I grease the sides of each loaf with a little melted lard, and when sufficiently light to go into the oven, I grease the tops of the loaves, thinking thereby to retain a more tender crust.

And now having the bread safe in the oven, let us give a thought to the flour we use. Have we gained anything by the new process? It is true we have beautiful white flour, which is delightful for biscuit, cake, and snowy white bread, but have we not lost the sweet, moist, nutritious bread that we made from our old-time flour? It is well to know that bread made from the new-process flour becomes dry and hard sooner than loaves made from the old-process flour.

SPONGE CAKE FRITTERS.—Six or eight square (penny) sponge cakes, one cup cream, boiling hot, with a pinch of soda stirred in; four eggs, whipped light, one tablespoonful cornstarch, wet up in cold milk; one-quarter pound currants, washed and dried. Pound the cakes fine and pour the cream over them. Stir in the cornstarch. Cover for half an hour, then beat until cold. Add the yolks, light and strained, the whipped whites, then the currants thickly dredged with flour. Beat all hard together. Drop in spoonfuls into the boiling lard, fry quickly, drain upon a warmed sieve and send to table hot.

POTATO BISCUIT.—Eight potatoes of medium size mashed very fine, four tablespoonfuls of butter melted, two cups of milk lukewarm, one cup of yeast, flour to make a thin batter, two tablespoonfuls of white sugar; stir all the above ingredients together except the butter, and set the sponge until light; four or five hours will be required; then add the melted butter, with a little salt and flour enough to make a soft dough, set this aside for four hours longer, roll out in a sheet three-quarters of an inch thick, cut into cakes; let them rise one hour and bake.

CROQUETTES.—Half a pound of cold meat, three tablespoonfuls finely chopped suet, three tablespoonfuls breadcrumbs, three tablespoonfuls of chopped parsley, one egg, salt and pepper, a little gravy made from the bones. Mince the meat finely, chop the suet, add all the dry ingredients and seasoning, mix well, moisten with a little gravy and make up into balls or small rolls. Dip each into egg and breadcrumbs, fry in hot lard. Serve with fried parsley.

CABLE PUDDING.—Bake in two layers. One cup butter, two cups sugar, one cup milk, 3½ cups flour, three eggs, one-half teaspoonful soda (strong), one teaspoonful cream tartar. Use yolks in cake; save whites for top. Beat white to stiff froth with sugar. After spreading on the whites, put cake in oven and let it brown. Cut and sugar pineapple, or any other fruit in season, several hours before using, and put between cake when hot.

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Lawn Mowers—Wiester & Co.
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The Week.

The turn of the kaleidoscope brings into view this week some of the prominent signs of progress in the rich region tributary to the city of Stockton. Our object in specializing is to bring the various parts of the State into more definite view by grouping their leading characteristics. As conditions favor the effort we will do for other regions as we do in this issue for the district named. Whatever temporary advantage any district may enjoy is overbalanced to the regular reader by the opportunity of becoming acquainted with the many and diverse charms and resources of the whole State.

Our National All-Souls Day.

It was long the custom in the early church to go out into the cemeteries and under the drooping willows and gloomy cypress, say mass for the dead, pray for the repose of their souls, and lay garlands of flowers upon their graves. It is still a fit and beautiful custom for us at special times to remember the dead, not from any foolish fancy of making their future any better, but to brighten more vividly the blessings of good we have received from them, or to so far revive the memory of evil they did that in our broader light we may learn how to excuse their follies and mistakes and rescue their names from the shadow of reproach.

To remember our own dead is easy and natural, and full of sweet fragrance. Their dear images steal upon us in silent and even in busy hours, glide through our wakeful thoughts and night visions, so that it is hardly possible to tell when they are absent from the mind. The loved dead are very real to us. They are as near to us as we are to ourselves, for they are a part, and a very large part, of ourselves. They are talked about more than the living. They inhabit the rooms, occupy the chairs, sit at the table, greet the household in the morning, and in the evening bid us the old pleasant good-night. The aroma of their presence is upon everything. They speak to us in every book, in every album; look down upon us from the pictures upon the walls, and come to visit us in snatches of old songs. We love to visit the silent spot that hides their dust and hold there our sacrament of thought and tears. But while all days are days of remembrance for the dead, the loved, the good, the beatified, it is well and salutary to have some special moment when we may recall the memory of those who were fellow-soldiers in this vast army of toil, care, struggle and temptation. For this purpose it has long been the custom in Catholic lands, and among some of the Protestant churches of Europe, to observe what is called All-Souls Day.

At the close of our Civil War there sprang up spontaneously all over the land the sentiment of remembering our brave dead by sprinkling flowers over their graves. In the heated passion and resentment of the hour, each side remembered only their own dead, but as time passed on passion began to cool and reason to regain sway, and now, quite generally throughout the country, the sweet hand of charity, in their graves to higher opportunities and grander achievements. Hence the best monument to our patriotic dead will be a people elevated and cemented by their sufferings, and the fittest decoration of their million graves the growth in their survivors of a better political ambition and a warmer fraternal feeling. Let us then rejoice that with each recurring year the memory of the great strife falls further into the background and will soon become to a happy, prosperous people, a sad and grand reminiscence its floral tribute, makes no distinction between friend and foe. Death glorifies the brave and true-hearted in whatever cause they may fall, and hence the 30th day of May has become our National All-Souls Day.

But while the object of preserving the recollection of soldiers' valor, patriotism, fortitude and self-sacrifice seems a noble one, still it is doubtful if the ceremonial observance of Decoration Day will become an established custom. It may gradually pass away with the present generation, as time levels the hillocks and mats all graves with one common sod. And perhaps it is well it should. While it is beautiful for the mourning friend to drop a flower on the grave of one dear to him, cut down in battle for a cause he feels was sacred, it still remains a serious question whether it is wise and beneficent for a whole nation to keep perpetually alive the memories of such a war by such a ceremonial tribute to its crumbling warriors. Disguise it in pretty words as we may, this day is a great company of shadows hovering over a terrible memory of national trial and agony. Of a civil war, a fratricidal war, forgetfulness of the past is best for the peace and welfare of the whole country. Let the dead past bury its dead. The distinction between right and wrong cannot be made clearer by sentimental observances. As in nature, the last year's leaves and stalks enrich the ground for the year's growth, so in the progress of men the generations have lain down that we might mount upon



RESIDENCE OF JAMES M. McCARTY, ESQ., STOCKTON.

The Home of J. M. McCarty.

The engraving of the residence of Mr. McCarty, on this page, shows that Stockton is a place of neat and comfortable homes. The design of the house bespeaks commodiousness and comfort. The grounds, with their growth of trees and ornamental plants, attest the adaptation of the Stockton climate to the luxuriant thrift of vegetation. It takes an exceeding short space of time to adorn and beautify a residence with beautiful environment, and the view of Mr. McCarty's home attests the fact that Stockton people appreciate the joys and benefits which come from enlisting Flora and Pomona in their home decoration.

EXCURSION TO THE SANDWICH ISLANDS.—On Tuesday afternoon, by the fine steamship, Australia, quite a number of prominent Masons, headed by Grand Master Atkinson, of Sacramento, and attended by members of their families and friends, left for an excursion trip to the Sandwich islands. The members of the party expect to be absent from one to two months. A large number of friends assembled at the wharf to bid the voyagers good-by. Honorable Wm. Johnston, Master of the State Grange, and his wife were among the joyous passengers. Mrs. Johnston hopes to improve her health by the voyage and change of climate. She will have the hearty wishes of all who know her, that her recovery may be speedy and complete. Mrs. Judge J. C. Merryfield is among the party from Dixon. Mr. Tyler Beach, proprietor of the St. James hotel, San Jose, was also among the well-known citizens aboard. We wish them all an agreeable voyage, profitable visit, and safe return.

The Wheat Situation.

The excitement in wheat holds up well, and the telegrams from Eastern centers continue to expatiate upon the operations of the bulls and bears, these animals seeming to have largely forsaken other gambles and confined their attention to the great cereal. In this market the situation is still strong, and so far as can be foreseen a good price will rule for the coming crop. There is every reason why this should be the case. There will be a wide falling off in this year's aggregate, as compared with 1886. The upper part of the great basin, or the higher counties in the Sacramento valley, are the most fortunate this year, and if no disaster overtakes the crop these counties will yield very respectable aggregates. Opposed to this, however, is the great wheat region of the San Joaquin valley, which, excepting favored localities in the northern and eastern edges, will harvest much less than last year. Leaving out the "west side," so called, much of which will not even give a cut of hay, some of the districts which produced the heaviest crop last year will lose 50 per cent of the weight this year. This, of course, leaves only one conclusion—that supplies for export will be reduced, and that the price should be improved. The price of wheat has for a long time been very low and the world's crops large. This year the turn of affairs sets in; other regions than California are short-cropped, and a step in an ascending scale of prices is to be expected.

It is impossible without a better system of reporting than now exists to arrive at a correct understanding of even the present condition of the crop in this State, more than we have outlined. The reports gathered by some daily newspapers and paraded with a great show of detail and definiteness are really more apt to mislead than instruct, unless they are read by one who is accurately informed as to the various regions named. The general public is not so informed, and the circulation of such reports at a distance from the State often does much harm to growers by depressing prices through spreading exaggerated views of prospective supplies. The reader sees, for example, two points named, one reporting a large percentage of increase, the other a large percentage of decrease, and he balances one off against the other. It is more than likely, as in recent cases we have noticed, that the locality reporting a large increase does not produce grain enough to supply its own needs, while the locality reporting decrease may be one yielding usually a vast surplus for export. The reader offsets one against the other—while in fact the small percentage of decrease in one case might mean as much wheat as 1000 per cent increase would in the other. It is because of the danger of misleading that we have always followed a very conservative course in reference to the various crop estimates which are put forth. They hurt the growers' interest nine times out of ten. The reports are tinged by the boom idea in many cases, and this should never enter a statement of crop prospects. There are agencies enough interested in bearing prices without allowing the real estate idea to lessen the value of what a farmer has worked for, and should get full value for in the market.

Until a *full* system of crop reporting is inaugurated by Government authority in this State, it is not likely that we shall have trustworthy reports. The Department of Agriculture is extending its work in this direction, and may, in time, cover the ground. It appears from recent reports, however, that conclusions are, of necessity perhaps, based upon insufficient data, and the estimate of this year's crop as compared with last is placed altogether too high.

WE are obliged to defer accounts of the Santa Cruz and other floral fairs, for which we hope to find room another week.

SAN JOAQUIN COUNTY.

The Basin of the San Joaquin River, Its Soil, Climate and Varied Productions.

STOCKTON AND ITS ENVIRONMENTS.

Its Industries, Trade, Commercial and Business Importance.

The Great Interior Basin.

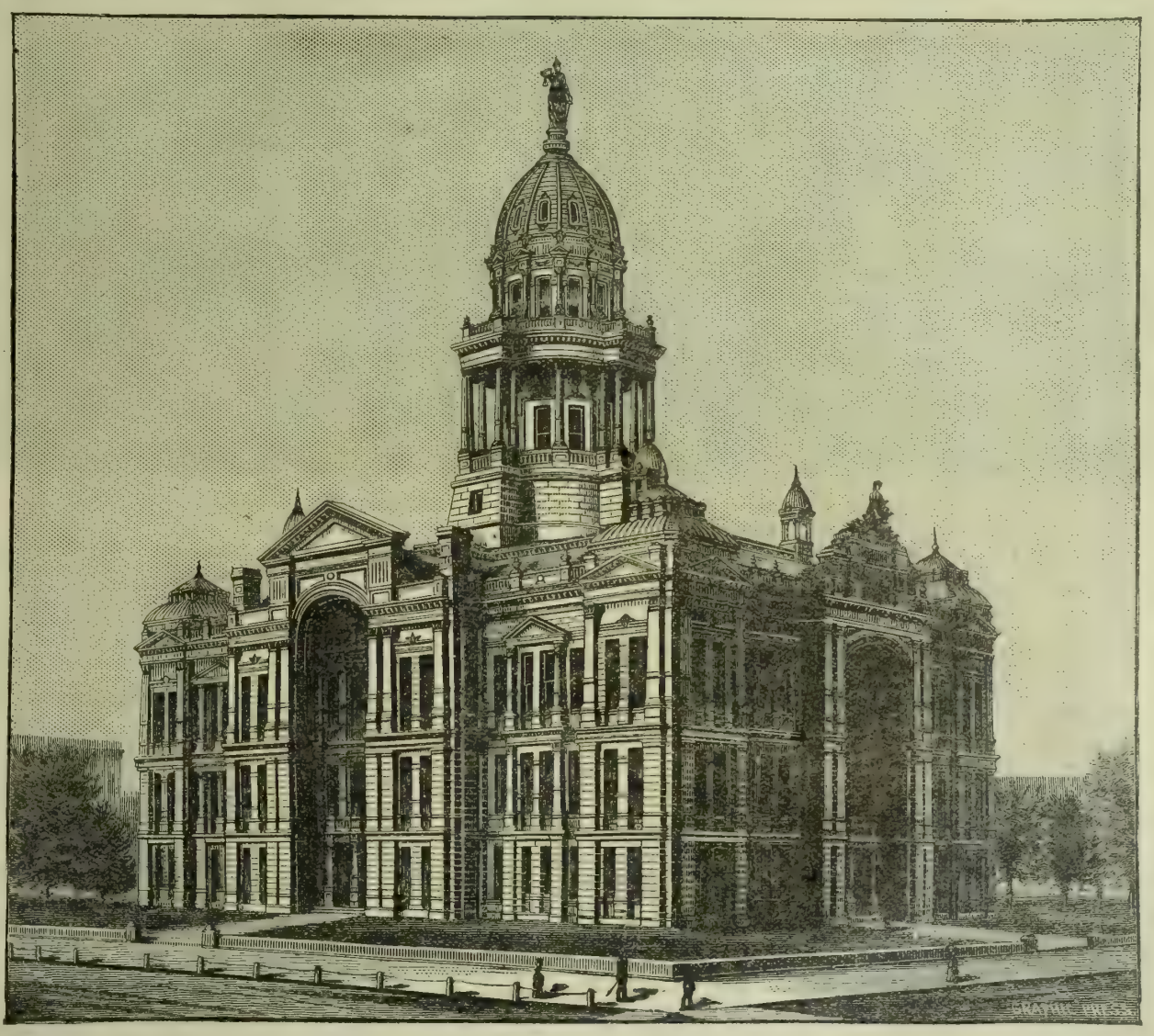
What is known as the great interior basin of California was once an inland sea 500 miles long, walled in by the Sierra Nevada and Coast Range mountains. It is drained by the Sacramento and San Joaquin rivers, whose united waters at some remote period burst through the rocky barriers of the Coast Range and helped to form the Suisun, San Pablo and San Francisco bays, spacious harbors where all the warships and merchantmen of the civilized world may find safe anchorage. It was here that gold was first discovered that gave a new thrill to finance and adventure; and the still greater discovery made that the soil was unsurpassed in rich and varied productive capacity. The mountains abound with gold, silver, iron, and copper; quarries of granite, sandstone, slate and marble, and in the great timber belt the hum of the sawmill will be heard for generations to come.

San Joaquin Valley.

That portion of the great interior basin that is drained by the San Joaquin river is known as the San Joaquin valley. It is the heart of the great basin. This region has been so often and graphically described by Col. N. M. Orr, the late lamented John Gettis and other writers that we can do little more than coin over old silver, with the risk of imparting to it some alloy. This valley contains the largest body of arable land in one connected body in the State of California. It stretches from the dividing summit of the Sierra chain of mountains on the east to the Coast Range on the west and the dividing waters of the Sacramento on the north, and embraces the counties of Kern, Tulare, Fresno, Merced, Stanislaus, Mariposa, Calaveras, Tuolumne and San Joaquin. It is in the shape of a parallelogram, whose greatest length is 250 miles and greatest width 140, with an area estimated at 24,000 square miles or 17,560,800 acres. At the low estimate of 20 bushels of wheat per acre, this valley might yield 351,200,000 bushels per year, worth, at the low figure of 75 cents per bushel, the sum of $263,400,000. The fruits, wine, wool, stock and other productions would aggregate many millions more. In addition to the fertile and extensive area of valley lands there are immense tracts in the foothills of the Sierra Nevadas capable of yielding a great variety of products. The choicest quality of fruits, grapes and vegetables come from these sunny slopes, and command the best prices in the San Francisco market. Throughout this whole valley a wonderful amount of energy and skill has been displayed in developing its unlimited resources. In some parts vast tracts of arable land have been made more prolific through the agency of irrigation, and now, under the recently enacted statutes, important schemes are in process of development for utilizing the element that nature has plentifully provided for moistening the soil, and crowning the labors of man with joy and greater abundance.

San Joaquin County.

This county has been called the right ventricle of the heart. The appellation is fitting, for, though not the largest county in the valley, it occupies the most important position, from its situation at tide-water and accessibility to all the markets of the world. It takes its name from the principal river that flows through it. The average length is about 40 miles and the average width about 35 miles. The area is 873,195 acres, containing a population of 30,000—about 1 to every 29 acres. It is almost entirely devoted to agriculture. At one time there was considerable placer mining carried on in the northeastern part of the county, but little or nothing is now done in that direction. This county occupying the lowest depression in the great San Joaquin valley, the metalliferous formations, except along the eastern border, have been buried so deeply beneath heavy masses of alluvium and detritus, washed from the mountains, as to be placed beyond mining use. So deep is this deposit that an artesian well sunk to the depth of 1000 feet failed to touch the bedrock.



SAN JOAQUIN COUNTY COURTHOUSE, AT STOCKTON, NOW IN COURSE OF CONSTRUCTION.

The total number of acres of land assessed in this county in 1886 was 874,123 acres, and that under cultivation was proportionately about as follows:

	Acres.	Yield.
Wheat	300,000	4,500,000†
Barley	45,000	900,000†
Rye	6,000	120,000†
Oats	200	6,000†
Corn	500	20,000†
Potatoes	3 000	150,000†
Onions	200	10,000†
Sweet potatoes	300	12,500†
Hay	8,000	12,000‡
Watermelons	1,000	2,500‡
Beans	1,000	2 000‡
Grapes	1,200	4,800‡
Fruit orchards	2,000	5,000‡
Hops	300	2,000§

† Bushels. ‡ Tons. § Pounds.

The real estate and improvements of San Joaquin county were assessed for 1886 at $26,891,132, while the total assessment of the county, including personal property and railroads, was $34,073,882. The rate of taxation for county purposes was 44 cents upon each $100 of valuation. The average rate of taxation for the last 13 years is 67.7 cents. There is perhaps no county in the State that can make a more favorable showing.

There is a great variety of soil in this county, but none that is utterly barren or unproductive. Even the rugged, mountainous land in the southwestern part furnishes fine stock ranges, and is susceptible of profitable cultivation. About 150,000 acres of the swamp and overflowed lands in the western portion of the county have been successfully reclaimed, and where a few years ago were impenetrable bogs of flag and tule, the paradise of frogs, wild hogs and other mud-loving vermin, enormous crops of wheat, barley, potatoes, and all kinds of fruits and vegetables, are produced. In richness and variety of yield these reclaimed lands equal, if not excel, the famous delta of the Nile. Four crops of splendid alfalfa hay are usually taken from this land in a year. The alluvial soils along the Mokelumne and Calaveras rivers possess marvelous fertility, and are capable of producing an almost endless variety of crops. Corn, 60 bushels to the acre: and barley, 50 bushels to the acre. Hops and potatoes, the choicest variety of fruits, and all sorts of garden truck in unparalleled prodigality. The great body of adobe lands in the center of the county is strong and rich, generally from four to eight feet in depth, but a little inclined to be ugly and unaccommodating in the rainy season. Even the sand-plain lands, once supposed to be of little or no value, instead of being soon exhausted as was anticipated, have improved in quality under cultivation.

Though the cereal products have long been the chief industry, fruit-raising is beginning to attract considerable attention. Peaches, pears, apricots, plums, quinces, indeed almost every kind of fruit peculiar to temperate and semi-tropical climes, may be successfully and profitably grown. The orange, lime and olive trees thrive and yield a fine quality of fruit in some parts of the county. The strawberries, blackberries and raspberries that grow around Linden are the beauties of the San Francisco markets. The district embraced between the Calaveras river and the French Camp creek contains some of the finest grape land in the State. Mr. George West has the oldest vineyard in the county and has demonstrated grape culture to be one of the most remunerative industries. It is believed the time is near at hand when the great wheatfields will be divided to make room for a larger population, and homes garlanded in flowers and surrounded by orchards and vineyards will give a picturesque charm to these plains and make the atmosphere of the valley fragrant with peace, plenty and happiness.

"While upon much of the land of this county a great variety of products can be raised without irrigation, should it be found necessary to adopt a system of irrigation the water supply is easily obtained from the rivers that flow through the land it is proposed to irrigate. There are extensive gardens and orchards near Stockton, where almost every kind of vegetables and fruit is raised, where the only water supply for irrigating comes from wells, from which it is raised by windmills. There are also several flowing artesian wells from which large streams of water are obtained, in the central portion of the county. There is vineyard land in this county which yields its fortunate owner from $100 to $200 per acre net profit each year. There are thousands of acres of land unimproved which can be purchased at sums ranging from $25 to $100 per acre. While it takes time and money to change a wheatfield into a productive vineyard, the prospective benefits to be derived are a sufficient inducement to cause the work to be done. And the rich lands of San Joaquin county will not much longer be devoted solely to the cultivation of wheat.

"The county has close connection with the great railroad system of the State, a branch of the Southern Pacific passing through from the north to the south. A branch line runs from Stockton to Milton, in Calaveras county, and Oakdale, in Stanislaus county. The western and southern divisions of the Southern Pacific intersect at Lathrop. The San Joaquin & Sierra Nevada narrow-gauge railroad runs through the northern portion of the county from Bracks landing on the Mokelumne, past the villages of Woodbridge, Lodi, Lockeford, Clements and Wallace into Calaveras county. This road intersects the Southern Pacific at Lodi. At present the county is being visited by many persons from the East, who are making a thorough examination of the county with the purpose of making investments, and considerable land is being sold."

The City of Stockton.

Stockton is the shire town of San Joaquin county, and the largest city in the San Joaquin valley. It was born of a mining spasm, cradled in a prairie schooner and christened after Commodore Stockton, who commanded the United States naval forces on the Pacific Coast during the war with Mexico. It has been nicknamed "The City of Windmills," and it would have pricked the courage and heated fancy of that valiant old knight, Don Quixote, could he have seen at a distance on a windy day these Briarean giants twirling their fingers as if spoiling for a fight.

A Bird's-Eye View.

The topographical site and surroundings of Stockton can hardly fail to make a favorable impression upon a stranger. As he surveys from some vantage position the bold outlines of Mt. Diablo away to the west with its inexhaustible wealth of coal, the snowy crest of the Sierras away to the east containing the world's supply of gold and silver, the vast sweep of the San Joaquin valley, dotted with fields, orchards and

vineyards, all tributary to this market, and the deep, navigable channel to the sea, he will conclude, as Matt Carpenter did after riding over Chicago, that when the Almighty made this country He meant business. If he should happen to strike this city on Saturday, the stir and hubbub of sounds would naturally attract him to Hunter's Square. For a moment he might be inclined to suspect that the insane asylum or the San Francisco Stock Board were holding an outdoor-meeting here, but would soon discover that this was a market overt or a sort of open-air bazaar, one of the peculiarities of the place. The loads of wood, hay, watermelons and cartloads of garden truck, the number of horses, mules, and cows tethered around, the huddle of farmers' tools and utensils, household goods, pictures and bric-a-brac, the clamor of the auctioneer, the strident voice of the patent-medicine vender, the organ grinder and his monkey, groups of farmers chatting about crops and the prices, and the antics of the politician as he flits and buzzes around the dear people, all combine to make a typical picture he is not likely to forget.



SCENE ON MAIN STREET, NEAR THE PLAZA, STOCKTON, CAL.

A Few Pointers.

But Stockton will bear close inspection. It is amply supplied with pure water from three flowing artesian wells and others of a less depth. The old courthouse well has been pouring forth its crystal stream for 25 years, with no perceptible abatement in the discharge. Pure water may be obtained most anywhere by boring not to exceed 100 feet; and as there are no rocks or bowlders, the work is easily and cheaply accomplished.

From the extensive works of the Stockton Gas Company radiate about 17 miles of mains to the different parts of the city. The streets are well lighted at the various intersections. The electric light has recently been introduced and many of the principal streets and large business-houses are lighted in this way.

The fraternal Orders flourish here, which is a good sign. There are two Lodges of F. & A. Masons, a Chapter R. A. M., and a Commandery of Knights Templar. The Masonic Temple, owned by a joint stock company, is one of the most notable ornaments to the city and a credit to the taste and enterprise of the owners. The Odd Fellows have two Lodges and an Encampment. Their temple is a three-story structure, a valuable piece of property, commodious and well arranged. The Ancient Order of United Workmen, the Knights of Pythias, the Improved Order of Red Men, the Chosen Friends, the United Order of the Pacific, the Ancient Order of Druids, the Ancient Order of Hibernians, the Independent Order B'nai B'rith and Good Templars, all have organizations here and are in a flourishing condition. This is enough to show that a large portion of the population are bound together in a more beautiful and endearing bond than mere gain and thrift.

The church edifices are numerous, and some of them are costly and imposing structures. There are three Methodist, two Baptist, one Presbyterian, one Congregationalist, one Episcopal, one Catholic, one German Reformed and one Jewish synagogue. The membership and attendance is as large as is usual in cities of a similar size. Broad-gauge Christianity has never taken root in this soil; whether that is a merit or not, we leave to the doctrinaires to determine.

Stockton at a very early day became noted for the excellence of its public schools. The school buildings are six in number, imposing structures valued at $185,000, including all improvements. During the last school year 40 teachers have been employed, and the average daily attendance of pupils was 1503. The total number enrolled was 2495, of which 88 were in the High school, 441 in the Grammar grade, and 1976 in the Primary grade. During the year, $34,605 was paid for teachers' salaries, while the total expenditures, including amounts paid for sites, buildings and new furniture, were $51,924.61.

The Free Library is a noble adjunct to the schools. It occupies commodious and well-arranged rooms on the lower floor of the Masonic Temple, has about 9000 carefully selected books on its shelves, and is supported by the city government at an annual expense of nearly $4000.

The State Insane Asylum located here is an immense brick structure with extensive wings and outbuildings, erected upon the most improved models for such establishments. It is sequestered in a beautiful grove of ancient oaks on the edge of the city. The 100 acres set apart for this purpose have been made very inviting by ornamental trees, choice plants, shrubbery, and parterres of flowers. The grounds are penetrated by broad avenues and walks, and liberally furnished with seats and arbors.

Four fire companies stand guard over the property of the city, with a splendid equipment of fire engines, one large Babcock extinguisher, and one hook and ladder company. Though these companies are volunteer, they have the reputation of being well trained and responding promptly when their services are required. The drivers and engine-men, in constant attendance at the engine-houses, are paid salaries by the city.

Stockton has five banks, all reported to be doing a profitable business. The Stockton Savings and Loan Society was incorporated in 1867, on a subscribed stock of $100,000, 10 per cent paid in, but has now a paid-up capital of $500,000, with deposits exceeding $1,500,000. Under careful and shrewd management it has become one of the most successful monetary concerns in the State. L. U. Shippee, president, F. M. West, cashier, and S. S. Littlehole, assistant cashier. The San Joaquin Valley bank was organized in 1868, and has a paid-up capital of about $160,000. C. G. Leach, president, and C. E. Perkins, cashier. The First National bank of Stockton was organized in 1872, and has a paid-up capital of $200,000. H. H. Hewlet, president, and P. B. Frasier, cashier. The Stockton Savings bank was organized in 1882, and has a paid-up capital of $300,000. H. S. Sargent, president, and Sidney Newell, cashier. The Bank of Stockton has since 1882 been doing business under the National Banking law, but is just now arranging to organize under the State law. Robt. K. Reid, president, R. W. Tully, cashier. There can be no better clue to the richness and prosperity of the city and county than the vitality of these financial pulses.

Stockton has two daily newspapers; the *Independent* occupying the field as a morning, and the *Mail* as an evening paper, both enjoying a large circulation and ably conducted. The *Commercial Record*, the *Banner*, a German paper, and the *Union*, a temperance journal, appear in weekly editions and are well supported.

The hotels are excellent and well patronized. The leading hotels are the Yo Semite, under the management of Sharp Bros.; the Grand Central, kept by John Henderson; the Commercial, by A. and J. Hahn; the Mansion House, conducted by Schmeider & Hoch; the Eagle hotel, by Ben Van Ness; and the United States, by H. C. Holman.

Street railroads are in operation upon some of the principal streets, and the advantage of this mode of transit is being gradually extended. There is a line running to the Agricultural Society's park, a short distance beyond the eastern boundary of the city, and to the cemetery, a mile north of the city.

The San Joaquin Agricultural Society has not only aided greatly in developing the agricultural interests of the county and valley, but also in inspiring confidence in the future of Stockton. They have leased one of the public squares, and just let the contract to erect a pavilion that will cost about $40,000. It will be the pride of the city; and when the square is adorned by trees and shrubbery it will be one of the most charming and inviting spots.

Stockton has one theater, the Avon, that is a gem, and will compare favorably with the best structures of the kind in larger cities. There is just now a great amount of ozone in the business atmosphere. The streets and sidewalks have been improved, and many substantial business houses and dwellings are in process of erection. A new courthouse will soon be constructed of granite at a cost of about $250,000. It will be one of the finest structures of the kind in the State, and, as it is centrally located, it will greatly enhance the many charms of the city. Stockton is a city of cosy cottages, comfortable, social-looking homes embowered in flowers and shrubbery. The people seem content and happy. They sometimes go away in the summer to Santa Cruz, Monterey and other watering-places, but are always glad to get home again. They have evidently come here to stay.



CALIFORNIA "PRAIRIE SCHOONER" LOAD OF WHEAT AT STOCKTON LANDING. *Photo. by Spooner.*

Stockton's Transportation Facilities.

Stockton possesses many advantages for removing freights. As aforesaid, no one can carefully survey its position and surroundings and fail to see that Nature premeditated business when she planned the situation. It is the natural entrepot and shipping point for an immense fertile, agricultural region, all of which, together with the vast mining and fruit-growing counties lying beyond, must draw from it most of their supplies. Of course, the advantage of direct water communication with San Francisco is the most important factor in promoting the growth and prosperity of this city and giving confidence in its future success. No corporate capital can monopolize this route, and it is not likely that the navigation of the San Joaquin river will ever be seriously obstructed by the flow of mining debris, as in other navigable waters of the State. Free competition assures cheap transportation. So hot was the rivalry the past year that wheat, flour and other commodities were carried from Stockton to San Francisco, a distance of 120 miles, as low as 25 cents per ton. Passenger fares on opposition days were often as low as 10 cents. Of course this was only a spiteful spasm, but the average rate from 50 cents to 70 cents per ton is as cheap as such products can be moved in the most favored localities of the United States. It is said that 18 steamers with 16 barges are now busy plying between Stockton and various points on the San Joaquin and the interior waters of the State. Two lines of steamers run daily between Stockton and San Francisco. During the year 1886, 40,000 passengers, and more than 500,000 tons of freight, were transported by steamers between these two points.

Then Stockton is in immediate connection with the great railway system of the State. One branch of the Southern Pacific runs directly through the city, connecting it with Sacramento and the northern counties, and on the south and west with Oakland, San Francisco, San Jose, and the southern counties. Stockton also has railway connection with Calaveras, Stanislaus, and Tuolumne counties, and the

eastern portion of San Joaquin by means of the Stockton & Copperopolis and Stockton & Visalia railroads. Other lines are contemplated, and the prospect is encouraging that the time is near when Stockton will enjoy railroad facilities possessed by no interior city of the State. A large amount of wheat and other staples come to tide-water over these roads, because of the cheaper facilities of reaching San Francisco, and directly and incidentally add greatly to the business importance of the city.

Fourteen or fifteen years ago a company was organized to cut a ship canal 12 miles long from Stockton to Venice, on the San Joaquin river, below which point the channel is 20 feet deep and 100 yards wide. This canal could be constructed by Stockton capital alone, and certainly should be made soon. The arrival of the first sea-going vessel at the Stockton wharves would give the city a boom that would make even a Los Angeles real-estate man dizzy-headed.

Stockton Trade.

The business development of Stockton has not been one of fits and starts. It has been as steady and normal as the growth of trees. The early settlers of Stockton were rather a slow-coach race, inclined to sleep over their natural advantages. They waited for Jupiter to come and give them a lift. In the meantime, Sacramento and Marysville forged ahead. But the era of waiting has passed. They have found out that the gods help the people who help themselves, and the result is, that Stockton plays second fiddle to no inland city of the State.

The wheat trade has been the most important factor in promoting the growth and prosperity of this city. The first lot of wheat shipped from this point was in 1858, and since then the business of dealing in grain has gradually grown till it is enormous. In 1859, 1500 tons of wheat were stored away in a little old adobe building. The storage capacity of the different Stockton warehouses now aggregates about 115,000 tons. The location of these warehouses alongside of navigable channels enables the owners to move their wheat at any time when prices are satisfactory. J. D. Peters, Geo. Hart, I. S. Bostwick, Smith & Wright and the Farmers' Co operative Union are the leading buyers, distributing from $2,000,000 to $5,000,000 annually among the wheat-growers of the State.

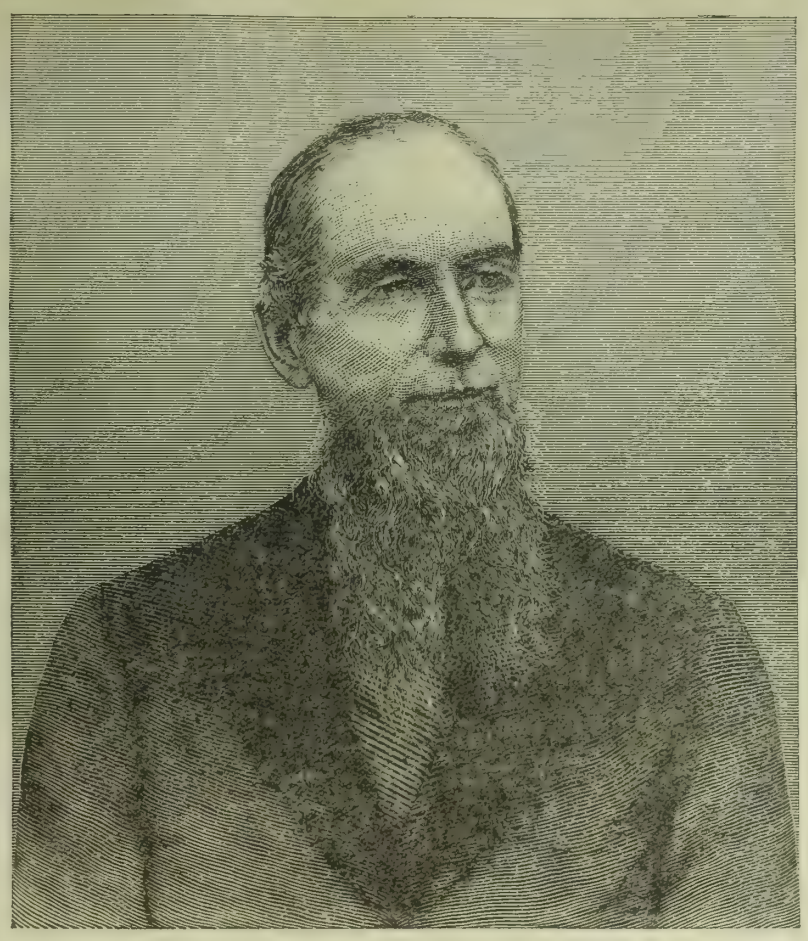
The larger portion of the lumber supply for the valley towns and farms is brought to Stockton from the coast counties, Oregon and Washington Territory. From 40,000,000 to 50,000,000 feet of lumber are annually distributed by Simpson & Gray and Moore & Smith, throughout the valley, even as far as Arizona and New Mexico.

The handling of fruit, vegetables and other garden produce is fast becoming an important business. As already stated, it is apparent that much of the land of San Joaquin and adjacent counties can be more profitably employed in the production of fruit, grapes, vegetables and the like than in cultivating the cereal crops, and as the market for these staples is more steady and reliable, this industry is destined to assume immense proportions.

Situated in the midst of an immense agricultural area, Stockton enjoys an extensive and profitable trade in hardware and agricultural implements. The grocery and provision houses have an extensive trade with the interior dealers, though none have gone exclusively into the jobbing trade. The aggregate sales in this branch alone, it is said, will aggregate $1,225,000 annually. Many of the dry goods and clothing establishments will compare favorably with the best of the kind seen in larger cities. Some of them are doing quite a large jobbing business in connection with their retail trade.

Stockton as a Manufacturing Center.

Owing to the high price of labor and the habit of depending upon the East, manufacturing industries were slow in starting in California. But the people of the State gradually awoke to the fact that the highest industrial thrift and prosperity can only be reached where agricultural production and the manufacturing arts go hand in hand. Unless the market is brought to the door, they must ever remain a race of vegetable dealers and fruit peddlers. Stockton has fully shared in this awakening. It is no longer a mere distributing center. So great has been its self-reliant growth that its mechanical and manufacturing enterprises now furnish employment to at least one-twentieth of the population. Foundries, carriage factories, furniture factories, tanneries, flouring-mills, planing-mills, woolen-mills, paper-mills, harness-making, boot and shoemaking, wagon-making, stone and marble cutting, the manufacture of tinware and all kinds of agricultural implements, are all now solidly planted, profitable and growing industries. The aggregate annual product of these varied industries it is said will exceed $5,000,000, and the benefit conferred upon the city by stimulating other kinds of business can hardly be overestimated.



L. U. SHIPPEE, PRES. CALIFORNIA STATE AGRICULTURAL SOCIETY.

[See next page.] *Photo. by Spooner.*

No better illustration of the business prosperity of this city and environs can be given than by particularizing some of its leading manufacturing establishments. The Pacific Tannery, owned by Kullman, Wagner & Co., expend about $100,000 a year for raw material, and produce a quality of leather that is in great demand in every market where it is known. The paper-mill on Mormon channel is the most extensive on the coast, turning out from 4 to 8 tons of news, manilla and wrapping paper per day, and giving employment to about 100 persons. The woolen-mill, started in a small way in 1870, by Messrs. Lambert, Dougherty & Patterson, has now an output of about 7000 pairs of blankets and 150,000 yards of flannel annually.

The planing-mills of White & Thomas and P. A. Buell & Co. are large establishments, and possess facilities for doing all kinds of work in their line. The Stockton wagons, carriages and buggies are models of taste and elegance, and are in great demand, for the reason that they are made of timber thoroughly seasoned in an arid atmosphere and stand use better in a dry climate than vehicles constructed in a more humid clime. William P. Miller, M. P. Henderson & Son, Holt Bros., and Joseph Hansel are building up the reputation of Stockton in this line, and the product of their skill and enterprise finds a market not only on the Pacific Coast, but extends as far as Idaho, British Columbia, New and Old Mexico, and the islands of the sea.

Stockton flour now feeds thousands of hungry mouths in Great Britain, France, China, Japan and elsewhere. The Sperry mill requires a capital of over $500,000, has a capacity of 1400 barrels of flour every 24 hours and gives employment to over 60 men. The Crown mill, under the management of J. M. Welsh, the present Mayor of Stockton, has a capacity about equal to the Sperry mill and about the same amount of capital invested. These mills, located in a grain district equal to the best wheat belts of the world, possess superior facilities in selecting choice wheat, and their brands will ever be a favorite in the market.

Stockton leads all other centers in its manufactories of agricultural implements. The Stockton headers, combined harvesters and thrashers, plows, harrows, seed-sowers, derrick-forks, and other farm utensils are growing in demand; they not only embody the latest ideas of inventive genius, but are found to be more serviceable than those manufactured in moister climates. Mattison & Williamson have long been in this business, have extensive shops, and their sales of agricultural implements are said to exceed $100,000 a year. Daniel Houser, after experimenting for some time, commenced the construction of harvesters in 1881. In 1883 the Shippee Harvester Works were established, and recently the Shippee and Houser companies have been consolidated. They combine the best features of different patents, and seem to meet all the needs of the grain-producers. This factory gives employment to 150 men, and the total value of its output the past season was over $300,000.

Hoult & Son have also an establishment where a limited number of machines are constructed each year. The Pacific Agricultural Works, G. Lissenden, proprietor, are also engaged in the construction of agricultural implements, plows, cultivators, etc., and the plows from this establishment are in great demand. The H. C. Shaw Plow Co. also do a considerable business in the manufacture of a gang plow which is much used in the San Joaquin valley. E. J. Marsters has for the past nine years done an extensive business in the manufacture of self-feeders for thrashing machines (his own invention and a great saving of labor), derricks, nets, windmills, tanks, etc., and during the past season has constructed a combined header, with some important improvements of his own invention. Many other manufacturing firms are doing well. The total amount of capital invested in the various manufactories of agricultural machinery and implements in Stockton is about $700,000, and about 250 persons are employed in that industry, while the annual product of the different establishments will exceed $450,000.

During the last five years, in sinking artesian wells for water in this vicinity, petroleum and gas have been found in small quantities at a depth of 1250 feet. Geologists and experts are almost unanimous that here is a great oil-bearing and gas-producing tract. A company from Philadelphia is boring a well within half a mile of the corporate limits of Stockton, for gas and petroleum to be used for light, fuel, and manufacturing purposes. If this enterprise proves a success, it will tend to revolutionize this section of country in a manufacturing point of view, and add greatly to the eminence which it has already secured.



VINEYARD OF GEO. WEST, ESQ. (VITICULTURAL COMMISSIONER), NEAR STOCKTON.

A "Rural" Representative made a flying visit to the California poultry farm of L. M. Cutting, at French Camp, San Joaquin county, a few days ago. During the last year substantial improvements have been made by him in additional compartments and the importation of several new varieties of land and waterfowl. To those who have never seen a system of raising poultry exclusively it is quite a curiosity. It is a growing industry and Mr. Cutting is receiving orders regularly from all portions of the State, Sandwich islands and Australia.

Formation of Diamonds.—A Swiss physicist, Prof. Simmler, maintains that diamonds have been formed by the taking up of soluble carbon by liquid carbonic acid, and its subsequent deposition in a crystalline form on the evaporation of the acid. This could only take place in rock cavities strongly compressing the carbonic acid, which would quickly disappear on release from the pressure.

L. U. Shippee.

The pushing, restless pioneers of our State, who have by indomitable energy and industry changed the face of nature and seized the opportunity to build up a great commercial manufacturing commonwealth, in a few years have made a record that is unrivaled in the history of any community. The men who have guided, builded, and thus shaped the marvelous growth of this new civilization are self-made men who have commenced in the lower walks of life.

Such is the career of the subject of our sketch. L. U. Shippee was born in Rhode Island in August, 1834. His father died when he was seven years old, leaving a large estate to his family, consisting of his wife and seven children. His ancestors on his father's side were sturdy Protestants from the north of Ireland, who emigrated about the year 1640 and settled on a neck of land in Narragansett bay, which has been held by descendants since that time, and is called "Shippee hollow."

His mother was one of the family of Spencers Friends or Quakers, who came from England, a name that has been held in good repute for successive generations in New England.

He lived with his mother until he was 12 years old, when that independent spirit which is characteristic of his whole life asserted itself, and he hired out to a neighbor (who carried on several enterprises) at $5 per month, for seven months. His family predicted his early return to his home of ease, but, contrary to their expectation, he not only fulfilled his contract, but by his tact and reliability became the trusted agent in his employer's affairs. His father was a machinist, and at his death held responsible positions as superintendent in several establishments. For two and one-half years he worked as a machinist, but found that it was unsuited to his restless nature. At the urgent request of his mother, he took charge of one of the farms belonging to his father's estate, but the plodding and contracted system of New England farming did not suit him, and against the earnest protests of his friends, he started for California in his 20th year, arriving in 1856. Commencing business in Stockton, in a small way, and finding that with what little capital he had he could not cope with older and larger firms, he sold out, sent what money he had on hand home, and commenced as a salesman in a grocery store at $60 per month, continuing for a term of six years, and resigned his position when he was receiving $200 per month, during which period he never lost a day at labor. At this time, by rigid economy and attention to business, he secured a sufficient sum of money to embark in business, and the firm of Shippee, McKee & Co., wholesale and retail grocers, was formed, which continued for a term of years. Mr. Shippee did not confine himself exclusively to this business, but as early as 1866 commenced farming and stock-raising. He was among the first, and one of the largest, importers of fine sheep, as also of horses, cattle, hogs, jacks and jennies. As an index of the extent of this enterprise, for two successive years he imported over $60,000 worth a year, previous to 1874, of merino sheep and other live-stock. In 1867 he associated himself with others in forming the Stockton Savings and Loan Society, which was one of the first, and is now the largest savings bank outside of San Francisco, and of which he has been a director since the formation, and president for the last 10 years.

Mr. Shippee has never accepted any office except as councilman for the city of Stockton, but has been president of every corporation or association in which he has been interested. For 13 years he has been president of the San Joaquin Valley Agricultural Association and also a director of the State Agricultural Society, being the oldest officer in the board; and at the annual election held in February, 1887, he was elected president of the State Agricultural Society. At an early date he took a deep interest, and was one of the leading men, in building gravel roads out of Stockton, and is now president of one. He was the chief organizer of the Stockton Combined Harvester and Agricultural Works, with a capital of $300,000, whose sales, in agricultural machinery and combined harvesters, were over $286,000 in 1886. He is a positive man, of a genial nature, of few words, quick perception, and grasps opportunities for advancement that men of slower thought would lose.

His sympathy for those who are making an effort to better their condition in life has been intensified by his own struggles, and to help one of this class he gives lavishly without publicity, and charity-seekers are always anxious to get Mr. Shippee to head the list.

His education, long experience, and keen perception enable him to handle questions of finance and business affairs with an intuitive knowledge and quick dispatch; and although he is interested in farming, stock-raising, breeding fine horses and various industrial enterprises in several counties, each one seems to be carried on without friction and in an efficient and masterly manner. He has a happy faculty of gaining the confidence of his employes and associates in business, and to this in a large measure he owes his success and the position he occupies as a business leader. He is one of the largest sheep-men on the Pacific Coast, and stocks from 25,000 to 40,000 each year; as also one of the largest breeders of fine stock of horses, and has now over 300 head of horses and colts.

Time has dealt gently with him, although his life from boyhood has been one of continual activity and mental strain. He is tall and erect, nearly six feet in hight, and has an elasticity in his step that betokens years of active labor.

His executive ability and sagacious management as president of the State Agricultural Society warrants us in anticipating one of the most successful State Fairs this season ever held in this State.

MESSRS. MATTESON & WILLIAMSON, one of the oldest agricultural implement manufacturing firms in Stockton, have one entire block covered with buildings. Over ten years ago, combined harvesters were built by this firm, and a machine that was built by them in 1876 has been used continuously, and with some changes made in 1886, was operated with satisfaction, and did efficient work the whole season. In 1886 they perfected a new machine called the "Harvest Queen," which has gained great favor among grain growers. It is of light draft, easily handled, and is well adapted to the wants of ranchmen who do not care to use more than ten horses. During the season of 1886 a farmer and his wife ran one of these machines alone over two weeks, the wife driving the team, while the husband attended the separator and sewed and dumped the sacks.



MILL OF THE CALIFORNIA PAPER CO., STOCKTON.



CUTTER SALMON'S ARTESIAN WATER AND GAS WELL, NEAR FRENCH CAMP. [See page 474.]

LOCOMOTIVES AND RAILROAD BRIDGES.—The great increase in the weight of the locomotives which have recently been put upon railroads for hauling freight trains, requires firmer roadbeds, heavier rails and much more substantial bridges than those heretofore constructed when lighter locomotives were used. It is said that the iron and steel bridges on the Pennsylvania railroad built several years ago prove to be too flimsy for the 60-ton freight-haulers recently put on — 118,000-pound engines — and new structures of stone or heavy steel are replacing all others so far as practicable.

Stockton Paper-Mill.

We give herewith a sketch of the buildings of the California Paper Company, which are well located on the banks of Mormon slough, in the city of Stockton. The property consists of two full blocks of land. The buildings are one and three-story brick structures, with a large frame warehouse for storing the stock used in paper-making and the finished product. There are also smaller buildings for blacksmiths, carpenters, etc. The warehouses have a capacity of 2000 tons.

The California Paper Company was incorporated in 1877, and the president from that time until the present has been Egbert Judson, the well-known and enterprising capitalist. The founder of the business was R. B. Lane. The capital invested amounts to $300,000. The capacity of the mill at the start was but two tons of paper per day; the present capacity is ten tons per day. The original speed of the machines was 80 feet per minute; now it is 180 feet per minute. The principal products now are straw-wrapping and newsprinting paper, but some book-paper is also made. During the last three years very large expenditures have been made, and the appliances and processes have been brought up to the standard of the most improved mills. In fact, the product of to-day is claimed to be without a superior of its class in the country. The recognition of this quality has brought a demand which taxes the capacity of the mill to its utmost, and it is now from two to three months behind its orders, even though the mill runs continuously from midnight Sunday night to midnight Saturday night, with only an occasional stop for repairs. This encouraging state of the business causes the company to contemplate the introduction of more machinery, which will increase the capacity of the mill 65 per cent. The present monthly product reaches 250 tons of paper, and the enlargement will increase it to 400 tons monthly, or 4800 tons per annum.

The management of the company believes in the future of the State, that increase in population will signify growth in culture, and realizes that this growth will create a demand for increased supplies of reading material, and to meet this the increased capacity of the mill will minister. One of the specialties is rolled printing paper, and many of the large San Francisco dailies are using the make of the Stockton mill in preference to any other.

The California Paper Company employs 80 hands. The water supply from artesian wells 600 feet deep is excellent and ample. The situation in Stockton gives the company every advantage in transportation by rail and water routes. The enterprise, so far as an outsider can judge, is conducted with much skill and enterprise, and it is certainly a kind of manufacturing progress which must be kindly regarded by all who delight in the upbuilding of varied industries in the State.

FREEZING WINES.—In a short time the Viticultural Commission will institute an investigation to ascertain the effect of intense cold on wines after fermentation has ceased. The experiments will be under the direction of John H. Wheeler, the Chief Executive Officer, and will be similar to those carried on in France, but on a more extended scale. Results of French experiments have been satisfactory. The liquor is exposed to cold, produced artificially if necessary, and it is then drawn off from the ice thus formed. The effect is almost exactly the same as that produced by fortifying, as far as the quantity of alcohol is concerned, and after 24 hours' treatment the wine becomes clear and brilliant and its flavor is greatly improved. The operation also kills the fermentation germs, and they are precipitated together with other heavy matter. The experiments will be begun at the earliest possible date.—*Napa Reporter*.

PIUTE squaws at Virginia City do a great business in water cress, which they bring into town and sell at one bit a bunch.

The Worthington Pump.

The Worthington pumping machinery is now recognized as the most efficient where high duty is required. For city water works it is specially adapted. The new type of the Worthington duplex is a very perfect machine. One of these pumping engines has been on duty at New Bedford, Mass., for over a year and showed on its test a duty of 118,000,000 pounds of water raised one foot high with 100 pounds of coal, on the basis of an evaporation of 10 pounds of water with one of coal. One has been running for several months at a station of the United Pipe lines of the Standard Oil Company delivering 25,000 barrels of oil in 24 hours, against a pressure of 1000 pounds to the square inch. This is the largest "direct-acting" pumping engine in the world. It has 41-inch high pressure cylinders, with 82-inch expanding cylinders driving 12-inch double-acting plungers.

An engine in Montreal was recently tried, and is in active service pumping at its contract capacity, 10,000,000 British gallons in 24 hours, lifting the water about 200 feet, including friction in the pipes. This equals about 420-horse power.

Besides the above-named engine in Montreal, high-duty engines of the Worthington type have been furnished, or are under contract for, at the following places: New Bedford, Mass., 5,000,000 gallons in 24 hours; Gravesend, L. I., 2,000,000 gallons; Jersey City, 5,000,000 gallons; Abbington and Rockland, 5,000,000 gallons; Davenport, Iowa, 6,000,000, and Kansas City, Mo., 9,000,000 gallons in 24 hours. In trying this engine at Montreal, a gentleman amused and interested himself and others by balancing a coin on edge on the frame which holds the high-duty attachment, where it remained undisturbed by any jar; a very severe test. The engine, while running up to full speed, was stopped as suddenly as it was possible to close the steam-valve, and started again almost as quickly without any trouble or noise whatever. It was also slowed down to less than one-sixth of its full speed without altering any adjustments, at which slow speed the strokes maintained their regularity of motion and length. The length of stroke at all times could easily be observed by marks on the cross-head-sides to be within a sixteenth of an inch or less of the contact of the pistons with the cylinder heads. When so desired, the pistons were allowed to actually strike the heads with so gentle a blow as barely to be heard or felt, or more pronounced at will, showing the complete and delicate control the engine was under, and the small amount of power left at the end of the stroke.—*Montreal Gazette.*

A Fine Valley Residence.

Some idea can be had of the comfort and delightful environment which may pertain to a residence in the San Joaquin valley by the engraving on this page, which shows the domicile of Dr. W. H. Mays, the highly-esteemed superintendent of the State Asylum for the Insane at Stockton.

SCALEBUGS DISAPPEARING.—A correspondent of the Los Angeles *Times* at Orange says it seems to be a settled fact with orchardists that the scale is dying out. The cause of this sudden change is a mystery, as up to this spring the different washes used appeared only to destroy the trees, while the bugs rapidly increased in numbers.

Southern California.

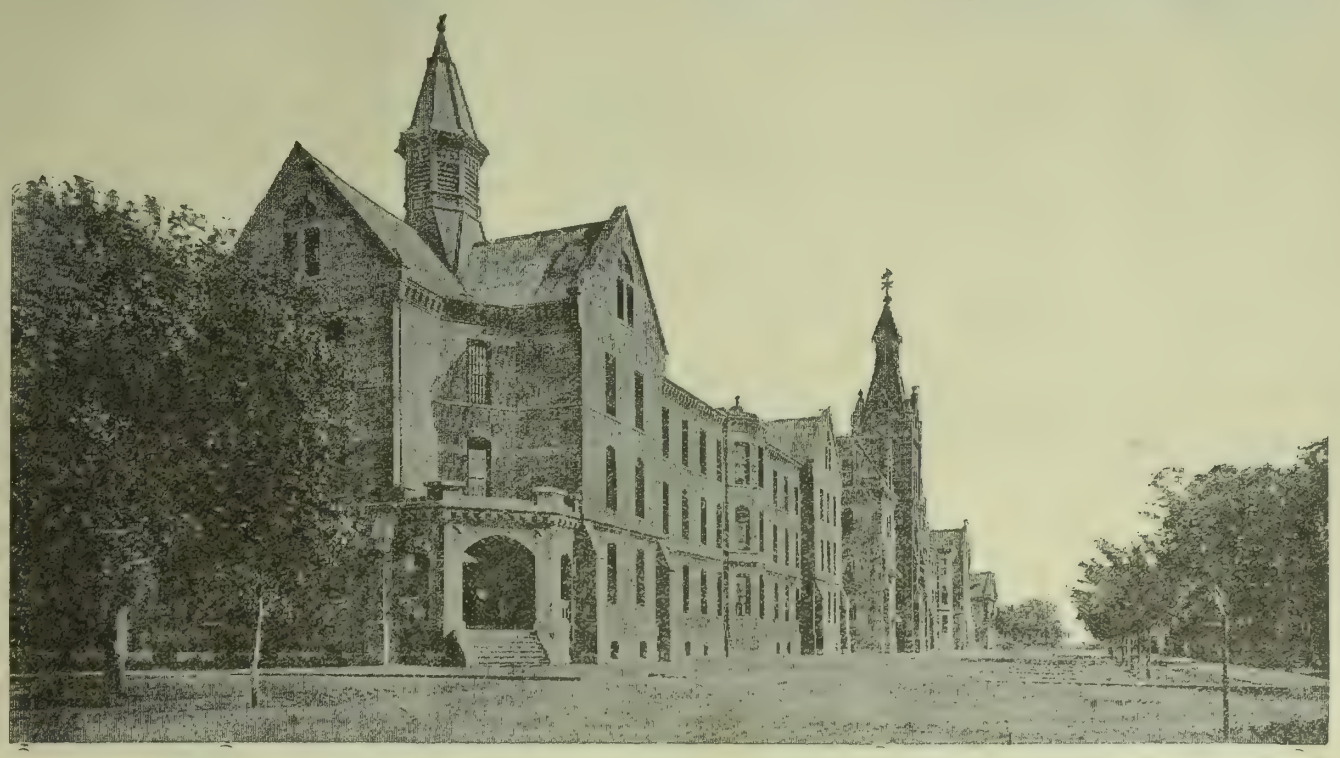
[NO. 3.—CONTINUED.]

[Editorial Correspondence.]

California is an empire of itself, both in extent and importance. It is over 700 miles in length, and has an average breadth of over 200 miles. It is four times as large as the great State of New York, twice as large as Italy, and nearly as large as France. There is no wonder that the above facts, considered in connection with the greatly elongated form of the State, should suggest the idea of

The Formation of a New State

Out of the southern part of California, which portion is now growing so rapidly and so fast coming into separate commercial importance. Should such an event occur, it is probable that seven counties would go off, viz.: Los Angeles, with a population of about 80,000; San Bernardino, with 20,000; San Diego, with 18,000; Ventura, with 7000; Santa Barbara, with 16,000; San Luis Obispo, with 14,000; and Kern with 7500, making a total of 162,500 for the new State, with an assessed valuation of over $100,000,000. The area of these seven counties is 57,000 square miles, or a little less than one-third of the total area of the State. The proposed new State would exceed in extent that of Pennsylvania, and would be nearly as large as all New England together. The population would be three times that of Nevada and equal to that of Oregon, while the productive power of the soil and the wealth-producing elements of the region will compare favorably with those of almost any State in the Union. "Coronado" has been suggested as the name of the new State, as more suggestive and more euphonious than "South California." The name signifies "The Crowned."



THE NEW BUILDING OF THE STATE ASYLUM FOR THE INSANE AT STOCKTON. *Photo. by Spooner.*

The Santa Ana Valley.

To the south of the city of Los Angeles, which formed the subject of our last letter, there is the large, level and fruitful Santa Ana valley, which takes its name from the Santa Ana river. Near the center of the valley is located one of the earliest colonies in Southern California—Anaheim. The story of the settlement and growth of this colony is well known to most of our readers. It is now, and for many years has been, an incorporated town, and has become quite a business center. The business portion of the town is well built up with substantial buildings. The streets are wide and very generally bordered with willow, pepper or sycamore trees, and present an appearance which is rarely excelled for picturesque and rural beauty. The waters of the Santa Ana river are largely utilized for irrigation, while in most portions of the valley artesian water can be obtained at very little expense. The climate of the entire valley is very equable, though generally moist from its close proximity to the ocean. The monthly average of the thermometer rarely ranges outside of from 50° to 72°. This, like all the other localities in Los Angeles county, is experiencing the general boom. The construction of the Atchison & Topeka railroad is giving an increased impetus to business generally. Real estate is rapidly advancing in value, and new settlers are constantly coming in. What has been done and is now being done in the San Gabriel and San Bernardino valleys will soon be repeated in the Santa Ana valley. There will be a succession of towns and villages all through the county. Already Tustin City, Orange and Santa Ana have so grown together that they practically comprise one community. They are now building a system of street railroads to more readily move from one section to the other of these lovely towns and villages.

Through the San Gabriel Valley.

The San Gabriel valley, however, is the great attraction to visitors, and, in connection with that of San Bernardino, forms the crowning beauty of the county and the State as well. This charming valley, all the way from Los Angeles to the foot of old Mt. San Bernardino, a distance of over 70 miles, is dotted with beautiful towns and villages, while one almost continuous line of orange groves and vineyards extend throughout the entire distance. The valley is traversed by two railroads and the route for a third is now being surveyed. The mountain scenery by which it is surrounded is both beautiful and grand. These mountains have been carved into picturesque masses by the action of aqueous erosion upon their yielding material. Mostly devoid of any vegetation, save low shrubbery and chapparal, the smoothness of their slopes gives full play to the effects of light and shade caused by the varying and intricate contour of the surface. Prof. Whitney in speaking of this peculiar characteristic of the mountains of California near the sea, says: "In the early spring these slopes are of the most vivid green, the awakening to life of the vegetation of this region beginning just when the hills and valleys of the Eastern States are mostly deeply covered with snow. Spring here, in fact, commences with the end of summer; winter there is none. Summer, blazing summer, tempered by the ocean fogs and ocean breezes, is followed by a long and delightful six months spring, which in turn passes almost instantaneously away at the approach of another summer." At frequent intervals all along the base of these mountains, there is found a multiplicity of warm and cold springs, whose healing waters of various character beckon the invalid to seek and secure a new lease of health and life.



RESIDENCE OF DR. W. H. MAYS, SUPERINTENDENT OF THE STOCKTON INSANE ASYLUM.

The Tide of Travel

From the Eastern and Northwestern States, which once sought shelter from the winter snow and ice and piercing winds of March, in Florida and other southern retreats, have found that they purchased their sunbeams at great cost of comfort and with but little benefit to health. These people are now taking annual wing for the beautiful country which we are describing. Here they find a truly healthful climate, without any of the disadvantages which are to be met with among the lowlands and everglades of the Gulf States. Here they find a warm welcome from both climate and people. Here thousands of our Eastern friends are establishing homes in our fertile and perfumed valleys, where they can live and thrive all the year round, gaining health and strength for a good old age, by growing, for either profit or pleasure, oranges, lemons, grapes, figs, peaches, pears, etc. It is well, and there is room for all. Hotels, the finest in the world for visitors; fertile fields which may be easily converted into beautiful homes for those who come to stay. The construction of the new railroad from Los Angeles to San Bernardino is opening up

A Great Number of New Towns.

As the cars of the San Gabriel road leave Los Angeles, they pass through a section of country dotted with villas and orange groves, which is rapidly filling up with beautiful homes. The first important place reached is

Queenly Pasadena,

Which already has a world-wide reputation. Situated on the higher ground of the San

(*Continued on page 476.*)

Artesian and Gas Wells.

Within a radius of 10 miles in and around Stockton there are a goodly number of artesian wells. The cut on page 472 gives a view of the surroundings of the artesian well situated on the Cutler Salmon farm, seven miles south of Stockton. It is 1250 feet deep and discharges 300 gallons a minute from a seven-inch pipe. In sinking at 280 feet the auger passed through a layer of timber and rotten debris 20 feet thick.

From this point the water was dark-colored, brackish and unfit for use. When the well was finished the water rose 22 feet above the surface, and it was by accident discovered that this great volume of water was strongly impregnated with gas. A gasometer has been placed in the building, seen in the cut, and light and fuel are supplied for the residence. In the winter season the gas is kept burning all night. At a depth of 800 feet, the water is tapped and brought to the surface in an independent pipe. This is a mineral water and has been found very valuable as a remedial agent in the treatment of rheumatism, gout and kidney complaints. Persons troubled with asthma have been cured by inhaling the gas from this well, and there is such confidence in the virtue of this gas that, under advice of physicians, the gas is gathered and carried to adjoining counties to be inhaled by invalids suffering with asthma. Mr. Salmon has visitors from all over the Pacific Coast to see this phenomenal well and test the virtue of the water in eradicating disease.

We learn that Mr. Salmon has refused $75,000 for this well, including ten acres of land adjacent thereto. We herewith give a list of some of the prominent

Artesian Wells.

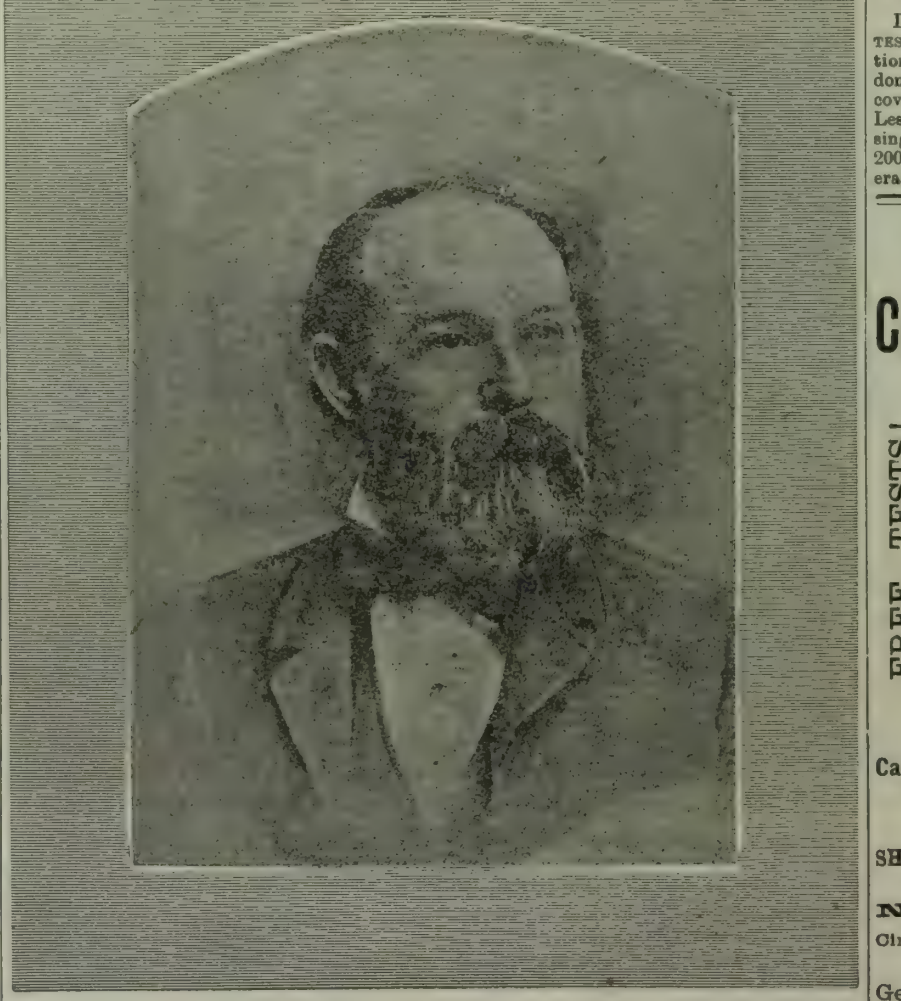
Name of Well.	Distance from Stockton.	Depth. Feet.	Flow in Gallons per 24 hrs.
Old Court House	In city	1093	150,000
Paper Mill	¼ mile west	597	100,000
Old Water Works	In city	1076	225,000
Geo. Ladd	2 miles southeast	976	450,000
Zeigo & Fodesto	⅛ mile northeast	1045	225,000
Dr. Gattan	4 "	1010	450,000
S. Sanguinetti	2¾ "	1100	225,000
New Water Works, No. 1	In city	1013	300,000
" " " No. 2	"	1105	300,000
" " " No. 3	"	1011	300,000
McDougald	2 miles south	976	600,000
Cutler Salmon	7 miles southeast	1000 / 1250	375,000
Gen. Williams	14 miles west	1435	150,000
S. Strait	3 miles southeast	1080	300,000
State Insane Asylum	In city	1091	225,000

GREEN AND DRY TIMBER.—A discussion is going the rounds of the press as to the relative strength of wet and dry timber. We do not believe there is much to be made out of the discussion. Some kinds of timber are stronger when dry, while other kinds are stronger when wet or green. It is safe to say that all woods are harder and less liable to bend when dry than when wet or green. But most hardwoods when wet will possess more tensile strength than when dry. Timber thoroughly seasoned is more brittle than when green, and with the necessary force will break square off, while the same timber green would stand about the same pressure by bending more or less without breaking. Take a hickory sapling that is almost impossible to break in its green state, although it may bend double, and thoroughly dry it, and you may easily break it almost "square off," as the boys say. So with almost any kind of timber. Drying makes it stiffer, more unyielding, but in very few instances stronger.

J. A. WILHOIT & SONS, real estate agents and searchers of records, are the oldest house in this business in the city of Stockton. Their experience and private records afford them facilities for passing on titles with dispatch and reliability. Parties wishing to invest in land in the San Joaquin valley should avail themselves of the services of this old-established firm.

H. C. Shaw.

There are in every community unassuming men who have an innate modesty and sensitive nature, who avoid public honors and office. This is characteristic of the whole life of Mr. Shaw. During a long and successful career as a merchant he has gained an enviable reputation as an upright, generous and public-spirited citizen. His occupation has placed him in close relations with farmers and producers the length and breadth of the San Joaquin valley, and through adversity and failure of crops he has all these years stood by and assisted many worthy but unfortunate farmers and producers. He emigrated to California from Steuben, Me., arriving at the age of 18 years, and entered the service of his brother, George N. Shaw, as clerk, who then kept a general commission house in San Francisco. Like most old Californians, he tried his hand at placer mining, but after a few years drifted back to his former business. In 1861 he settled in Stockton and has followed the business of manufacturing and importing agricultural implements and machinery, and is now engaged in the same business. He has been urged frequently to accept office and has persistently refused, although at one time an active member of the State militia. He is a member of the F. and A. M. and a very popular member of the Knights Templar. On the subject of California farming he is an enthusiast and has given this subject a great deal of attention, especially in importing and manufacturing improved implements, machinery and equipments for ranchers, who put out and harvest from 10 to 5000 acres of grain each year. His high sense of honor, forbearance and universal generosity among his neighbors have given him a popularity and respect that is seldom accorded to a person in the common walks of life. Mr. Shaw has an exalted opinion and an abiding faith in the resources, productiveness and future growth of this section of our State, and believes that the city of Stockton with her natural advantages in a commercial point of view is destined to be the great inland city of the State and the center for manufacturing agricultural machinery and equipments. He is a fine specimen of physical and mental manhood, commanding presence, and great influence in the local affairs of this section of our State.



H. C. SHAW, ESQ., OF STOCKTON. *Photo. by Spooner.*



THE CALIFORNIA STEAM NAVIGATION COMPANY'S WHARF AT STOCKTON. *Photo. by Spooner.*

California Steam Navigation Co.

This is now the most enterprising of the companies running steamers on the California rivers. They have four fine, large steamers—the Mary Garratt, City of Stockton, Centennial and Alice Garratt. These steamers are speedy, well fitted and arranged for the comfort of passengers. They are stern-wheelers, with abundant power for fast running. This company is now constructing one of the largest warehouses at the city of Stockton and making other improvements for facilitating the handling of freight. W. T. Garratt is president of the company, James Gillis (of Stockton) vice-president, and Wm. Martin secretary. The enterprise of this company has done much for Stockton in many ways. It is a very pleasant trip up the river on the steamer at any time, and the boats are always well filled with passengers. It has become a very popular route for the traveling public, as they board the steamer in the evening and find themselves in Stockton on the following morning. The above cut represents the steamer Mary Garratt loaded at Stockton with freight and passengers for the down trip.

LAKE FORMED BY FLOODING FROM AN ARTESIAN WELL.—The project of flooding a portion of Algeria from the sea has been abandoned, but it seems that large tracts may be covered with water from other sources. De Lesseps reports to the French Academy that a single artesian well bored in 1885 is yielding some 2000 gallons a minute, and has formed a considerable lake 30 feet deep.

INVINCIBLE!

—THE—

Carbolic Smoke Ball

(TRADE MARK.)

FREE TESTS! FREE TESTS!



NEVER FAILS TO CURE

Catarrh, Asthma, Diphtheria, Croup, Neuralgia, Hay Fever, Bronchitis, Cold in the Head, Sore Throat, Etc.

SHOULD BE IN EVERY HOUSEHOLD.

A CHILD CAN USE IT.

Not Sold by Druggists

Circulars, Testimonials, Etc., Sent to any Address Free.

Genuine Home Testimonials can be seen at our office.

SENT, ON RECEIPT OF PRICE, TO ANY PART OF THE WORLD.

MAIL ORDERS. "Smoke Ball" and "Debellator" packages sent by mail, with full directions, on receipt of price, $5.00 (Smoke Ball, $3.00; Debellator, $2.00), two 2-cent stamps. Remit by Postal Note, Wells, Fargo & Co., or Postoffice Money Order, Registered Letter, or in coin by express.

CARBOLIC SMOKE BALL CO.,

Rooms 7, 8, 9, 10, No. 652 Market St., Cor. Kearny (opp. Lotta Fountain), San Francisco, Cal.

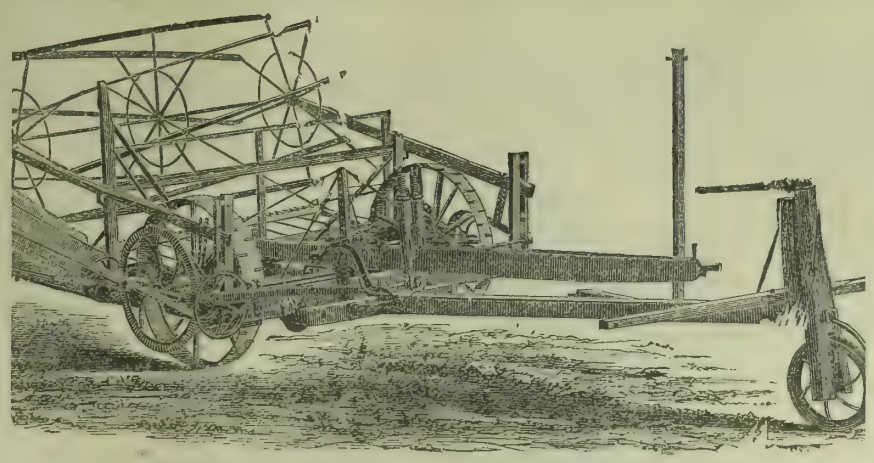
☞ Separate Parlor for Ladies, who will be waited upon by skilled and polite lady attendants.

BE SURE THE NAME "A. J. HODGES & CO." IS ON THE HEADER.

No Header ever sold on the Pacific Coast has given such satisfaction as the Headers made by A. J. HODGES & CO.

POINTS OF SUPERIORITY:

1. Frames all made of thoroughly seasoned hard wood.
2. Center Pitman, thereby giving a steadier motion to the Sickle.
3. Lever Balance Springs, instead of iron weight on lever.
4. Self-adjusting Reel.
5. Long Guards, two inches apart.
6. Sections on top of Sickle Bar, same as on Mowing Knives.
7. Forty-inch Drapers.
8. Rollers under Elevator Spout, to roll on Header Wagon bed.
9. Tight Bottom under Draper behind Finger Bar.
10. Breast of Finger Bar ironed.
11. An additional Roller in top of spout, to prevent any grain from being carried down by Draper.
12. A New Clutch on Cross Shaft by which the motion of Draper can be stopped at will, while the Header remains in motion.



HAINES' IMPROVED SINGLE-GEAR HEADER.

WEIGHT IN CASE.		
3240 pounds.	10 feet, Hodges' Iron Wheel, Single-Gear, with 40-inch Draper	$300 00
3400 pounds.	12 feet, Hodges' Iron Wheel, Single-Gear, with 40-inch Draper	325 00
3700 pounds.	15 feet, Hodges' Iron Wheel, Single-Gear, with 40-inch Draper	350 00

IMPROVED "CHAMPION"
DOUBLE DRAPER LIGHT HEADER.

Made by A. J. Hodges & Co.

12 feet Champion Light Header, weight in case, 2900 lbs., $300 00.

This header, as made for this season, has been greatly improved, and we feel confident will meet with the wants of the farming community. It has the long guards and reverse section sickle, so popular in the Hodges' Single-Gear and Hodges' Case Headers.

The sickle is flush with top of bar, and the bar itself is sloped or beveled back, so that the grain will fall back on to the Draper.

The Elevator Spout has been lengthened two feet, making it ten feet long instead of eight feet, as heretofore. Long rollers have been put under the spout, to prevent chafing on the edge of the Header Wagon bed; the spout is raised or lowered by a series of pulleys and ropes, thoroughly at the command of the driver, who can easily manage it with one hand.

The Grain Wheel has a tire five inches wide, and the grousers on the main Drive Wheel are put on at an angle, to prevent sliding when cutting on a side hill. The Header is center stroke, with brass Pitman Box. Has the Chain Driving Gear, so popular among farmers, improved and strengthened.

It has Double Elevator Drapers, which are a great advantage in short grain and high wind.

THE GENUINE HAINES' HEADERS,

After over 20 Years' Trial and Competition, Still Stand at the Head of their Class. Are Better Made, More Durable. Improved to Keep Up with the Times and Demands.

Every farmer of California knows that of the thousands of Headers sold in this State, none have ever been equal to those made by A. J. Hodges & Co., at Pekin. Owing to the efficiency of these Headers, many manufacturers and dealers have put upon the market various imitations made by Wood, Case, Weyhrich, and others, but to-day the proof of the superiority of the genuine Hodges' Headers ABOVE ALL OTHERS, IS THEIR RAPID AND READY, AND GREATLY INCREASING SALES.

HODGES' HEADERS ARE THE BEST IN THE WORLD. DO NOT FAIL TO SEE THEM BEFORE YOU BUY.

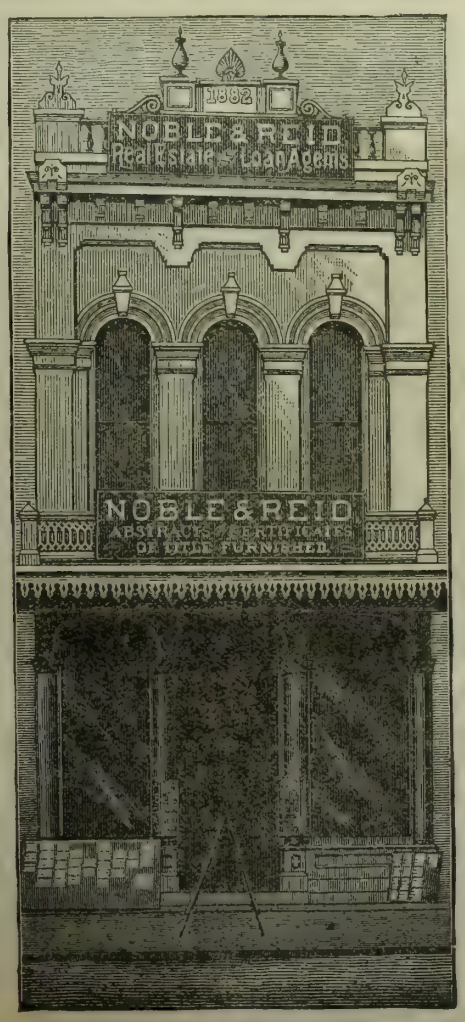
SOLE AGENTS FOR

"Schuttler" Farm and Header Wagons, Perkins' Windmills, Dederick Hay Presses, Etc., Etc.

HAWLEY BROTHERS HARDWARE COMPANY, San Francisco, Cal.

NOBLE & REID,
General Land Agents,

MONEY LOANED AT THE LOWEST RATE OF INTEREST.



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197 HUNTER ST., STOCKTON, CAL.

FARMERS! FREIGHTERS! DEALERS!

IT WILL PAY YOU TO EXAMINE THE

RUSHFORD TUBULAR Steel Axle —AND— Steel Skein WAGONS

BUILT FOR THE PACIFIC COAST TRADE.

The Tubular Axle is made from one piece of wrought steel, from end to end, including spindles; with polished case hardened spindles and ground, seamless boxes. The manufacturers guarantee to replace any Tubular Axle bent or broken, no matter what weight or circumstances.



THE RUSHFORD STEEL SKEIN RANCH WAGON

Will carry 1000 lbs. more weight than the same size of Iron Skein Wagon.

1. It is the only skein covering the tapering portion of the axle in SOLID STEEL.
2. It envelops more of the axle with SOLID STEEL than any other skein.

We carry all sizes of Tubular Axle and Steel Skein Wagons, with capacities from 2000 to 15,000 pounds. Prices same as in the old style of iron axle and skein wagons.

Full descriptive catalogue upon application to

Bull & Grant Farm Implement Co.,

——SOLE AGENTS FOR THE——

J. I. CASE IMPROVED HEADERS, SEPARATORS AND ENGINES, RED, WHITE and BLUE MOWERS,

14 & 16 Main St., San Francisco.

223 N. Los Angeles St., Los Angeles.

Southern California.

(*Continued from page 473.*)

Gabriel valley, 900 feet above the level of the sea, girted by towering hills and lofty mountains, she is warmed by a golden wealth of sunshine, and fanned by perpetual summer breezes. With a natural scenery not surpassed by Alpine lands, she is embowered in groves of orange and other tropical trees, and perfumed by flowers of every hue and shade, to which is added innumerable palace homes and beautiful cottages, which are crowned with that gem of human art, the "Royal Raymond." No place is more justly famous on mesa, plateau or valley. It constitutes a beautiful park, and every traveler who visits it cannot fail to carry away most pleasant recollections, as of a visit to some fairy land.

Leaving Pasadena.

The next town reached, some four miles distant, is pretty little Lamanda Park. One mile further and the cars reach a spot where a new depot is to be erected, which will be the stopping-place for travelers going to the Sierra Madre villa and the new town of Huntington. The train stops next at Santa Anita, 17 miles east of Pasadena, from which point the traveler speeds on over a beautiful panorama of towns, villas, orchards and vineyards, through Baldwin's famous grants, to Monrovia and Duarte, until he reaches Azusa, 24 miles from Los Angeles. From hence a succession of towns, new and old, are reached in the following order: Gladstone, 26 miles from Los Angeles; San Demas, 28; Claremont, "the beautiful," 30; Pomona, 33; Ontario, "the foothill paradise," 38; Lordsburg, 40; Cocomungo, 42; San Bernardino, 60.

The Village of Pomona

Is located on the line of both the Southern Pacific and the Atchison & Topeka or California Southern railroads. The town is poetically and most appropriately named. It is romantically situated, in a charming spot, with beautiful surroundings, while industry and intelligence are constantly adding new charms to the locality. The fruit grown in Pomona is of a superior quality. It is also celebrated for its vegetables, some of which yield three crops a year. The Hotel Palomares is a recent addition to the architecture of the town. It is delightfully situated near the business center, has innumerable corners and ends, countless and quaint little windows. It has been suggested that if the building was only a little older it might be suggestive of Hawthorne's "house with seven gables." The interior is as unique as the exterior—rooms all furnished alike, with odd little hallways that run in all directions and toy-like windows through which the light peeps in from every point.

San Bernardino.

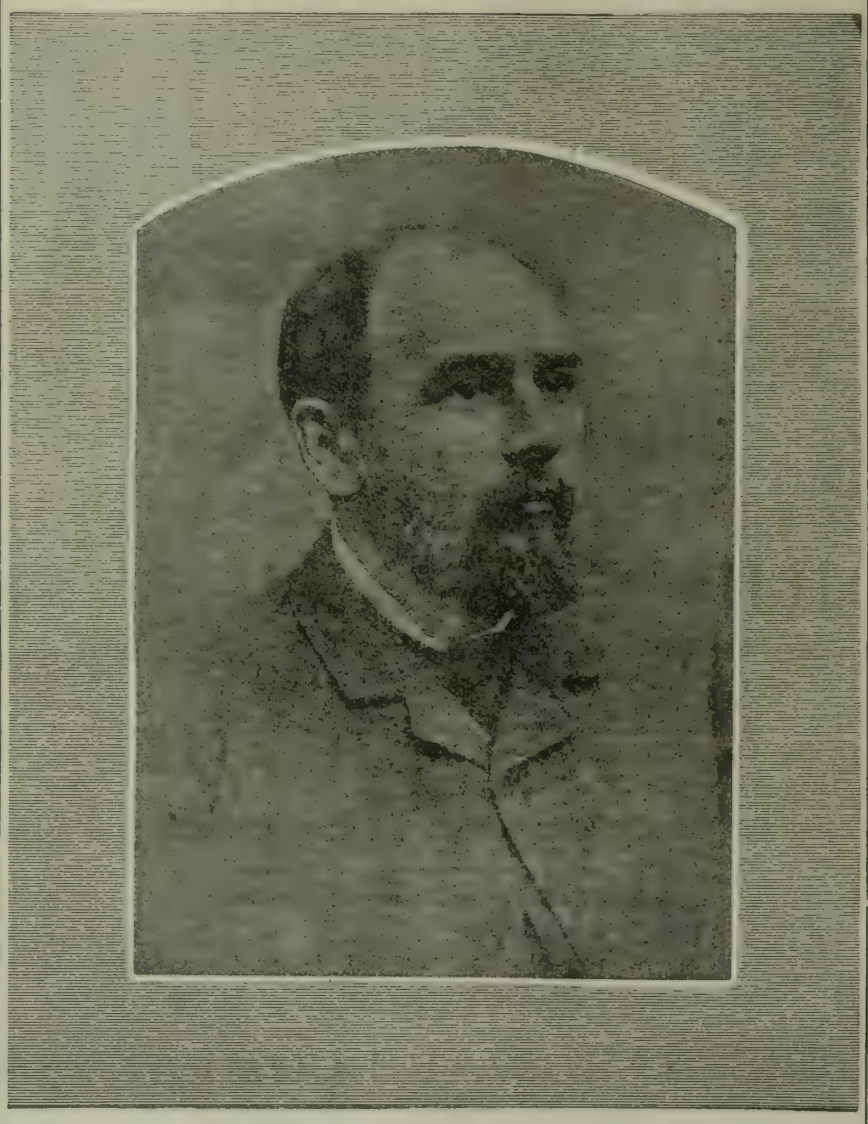
The San Gabriel valley at its eastern extremity gradually merges into what is known as the San Bernardino valley—a circular area of some 15 to 20 miles diameter. Near the center of this valley is located the city of San Bernardino, upon one of the most delightful localities a person can well imagine. The fertility of the soil, an abundant supply of the purest water—both river and artesian—a most genial climate, in connection with the delightful scenery which meets the eye in every direction, serves to render this a most desirable place for residence. In addition to the above natural advantages, art and enterprise have united in giving to the city

Commercial and Industrial Advantages

Of a most important character. Located in the midst of a most fertile valley, made up of a great variety of soil characteristics, it presents to the agriculturists who would locate therein and become tributary supporters to the city opportunities for producing the widest range of products. The mesa lands along the foothills, which almost entirely surround the valley, furnish the most desirable soil and climate for the culture of citrus fruits which can be found in the State—perhaps we might say in the world. The grape flourishes here to perfection, either for wine or raisins. All the mesa lands have to be irrigated, for which an abundance of water can be obtained from the numerous streams which flow from the adjacent mountains. These streams can also be supplemented and their volume of water kept up during the dry months of summer by

A System of Mountain Storage

For which large and convenient mountain valleys are found, which may readily be converted into huge reservoirs of winter water, which, without such storage, would pass off into the ocean during the winter and early spring months, without benefit to industry or commerce. One such system has already been perfected by the Bear Valley Water Co. Others are possible and will be provided as soon as a sufficient number of settlers come in to locate and create a demand for such surplus water. In this manner every acre of mesa land of this and the neighboring valleys will soon be utilized and covered with trees, vines and happy homes. As we pass down toward the center and lower portion of the valley there is a change in the character of the soil, which becomes better suited to a more mixed character of farming. Here the soil is better calculated for the deciduous fruits, vegetables, and cereals, and for dairy farming. This portion of the valley is well watered by flowing streams and by artesian water which can be readily obtained in immense quantity and at small cost, as the wells seldom exceed 100 feet in depth. So abundant is this artesian water that at one locality a great number of artesian wells have been bored within a small area and the water collected into one large stream and conveyed some 20 miles away to that portion of Riverside which lies above the level at which water can be taken from the Santa Ana river. This enterprise is known as the Gage Ditch Company, and will soon bring into the highest state of cultivation some 10,000 acres of the finest land in San Bernardino county.



HON. JAS. M. WELSH, MAYOR OF STOCKTON. *Photo. by Spooner.*

THE FLOOD OF IMMIGRANTS.—According to reports received by the Immigration Bureau, 900 settlers came into this part of the State last week. Several colonies are preparing to make homes in California. A large organization, numbering nearly 100 persons, is expected from Iowa by the middle of next month. Smaller colonies, Swedish, German and of mixed nationalities, are seeking locations by correspondence. These people are from Kansas, Dakota and Minnesota.

RECENT advices from Mexico state that drouth in the southern portion of that country has caused the death of many cattle, and that cholera has destroyed thousands of swine, creating such a prejudice against pork that a number of shops devoted to pork and lard have been closed.

MARYSVILLE *Appeal:* The irrigating ditches brought down from Smartsville have doubled the price of land along their course in the foothills.

Jas. M. Welsh, Mayor of Stockton.

The genius of our Government and opportunities for securing wealth, honor and advancement are fitly illustrated in the life of the present Mayor of the city of Stockton. He was born in Dundee, Scotland, in the year 1845, and is now in the prime and vigor of manhood. At the age of five years his father and family emigrated to Canada, where he received a common-school education and afterward learned the trade of miller. In the year 1868, he came to California, and has followed milling continuously up to the present time.

In 1882, the Crown Milling Company was formed, consisting of Schwonbacker Bros., Balfour, Guthrie & Co., and Mr. Welsh, who has been the general manager of this immense plant. Although a quiet, unostentatious citizen, and what may be termed a strictly business man, the solid men of Stockton brought him out and urged him to accept the position of Mayor. He was elected by a good majority in a closely contested election. His administration was conservative and characterized by a strict adherence to law, constitutional enactments and individual rights, unmindful of spasmodic clamor or vituperative assaults. He was re-elected and succeeded himself by the largest majority ever given to a candidate for Mayor in the city of Stockton. At the present time he is president of the San Joaquin County Board of Trade and also of the Land Loan and Building Association of Stockton.

Mr. Welsh is not prominently connected with fraternal societies, although he is a member of F. and A. M. and has always taken a deep interest in humanitarian projects for the assistance and advancement of his fellow-men. He has followed one line of business from boyhood, and has the reputation of being one of the most skillful in this line on the Pacific Coast. His interesting family and the management of an immense business have occupied most of his time, until of late, being chosen executive head of the municipality of the city of Stockton, he has given much thought and study to political economy and the science of government. He is not a large man, but seems to have great endurance and has proved himself a wise counselor and astute leader.

Austin Bros.

This is one of the oldest hardware establishments in Stockton. It was originally established as a branch of the well-known firm of Thos. X. Selby & Co., of San Francisco, the present owners being successors to that firm. The individual members of the firm are H. S. Austin and W. B. Austin, the latter being the resident partner in Stockton, H. S. Austin residing in San Francisco. This house carries a very heavy general line of hardware, embracing all the heavier goods that are handled in connection with it. Their place of business, a very good view of which we present, was built by them, and is especially adapted to the requirements of their business. Two stores, each 150 feet deep by 50 feet front, a portion of the second story and the basement, are well filled with a desirable and well-selected assortment of heavy and shelf hardware, mechanics' tools of all kinds, builders' and carriage hardware, steel, bar and sheet iron, blacksmiths' tools and supplies, leather and rubber belting, packing, hose, cutlery, etc. This firm being importers direct from manufacturers, are enabled to offer superior inducements to their customers. The success of this establishment from its start is the best evidence of its general popularity, and it is to such houses that Stockton is indebted for its reputation as a mercantile center.



AUSTIN BROS'. BUILDING, STOCKTON.

CACTUS FODDER.—Texas stockmen who have tried feeding beeves on prickly pear say that fat is laid on fast, and the cattle appear to experience no difficulty in assimilating this new food. In view of such successes, *Hoof and Horn* urges the cattlemen of Arizona to experiment with the same plant, as it is one of the most prolific and widely distributed of the cactus family in the Territory.

HOLLISTER rejoices in the prospect of having a cannery, toward which $20,000 has been subscribed.

ESTABLISHED 1877.

CHARLES V. THOMPSON

GENERAL COMMISSION

—AND—

PRODUCE MERCHANT,

WHOLESALE AND JOBBING DEALER IN

FOREIGN and DOMESTIC FRUITS

(GREEN AND DRIED),

Beans, Potatoes, Onions, Cabbage, Honey, Nuts, Etc.

AGENT FOR THE RIVERSIDE CHEESE.

190 Levee Street and 335 El Dorado Street, STOCKTON, CAL.

P. O. Box 476. Telephone 135.

CONSIGNMENTS AND ORDERS SOLICITED.

HALE & CO.

The Largest Retail House on the Pacific Coast.

The Stockton house (one only of the many branches) has fully demonstrated by its unusual growth and prosperity what can be done by a concentration of capital and the condensing of several lines of business under one head.

Dry Goods, Clothing, Boots and Shoes,

Are shown in endless variety; and buying directly of the manufacturers for spot cash, and selling everything for cash only, they are enabled to take advantage of every turn of the market, and place their goods before the consumer at the smallest possible percentage over manufacturers cash. Hence their success.

HALE & CO.,

STOCKTON.

DR. C. GRATTAN'S

SPECIAL REMEDY

—FOR—

Diphtheria or Putrid Sore Throat.

DR. C. GRATTAN,

Stockton, Cal., Sole Proprietor.

DIRECTIONS:

The medicine to be given without any dilution in water. The dose to be given every three hours until the bowels are moved, then repeat the dose three times a day for two days, and twice a day for three days, and once a day for a week. In case the throat is very sore, take one teaspoonful of the Diphtheria Mixture to one-half a cupful of water, and gargle the throat six times a day. Those in the family who are not sick should take a few doses of this medicine, and it will prevent the spreading of this disease. For the blood, one-half a teaspoonful three times a day. For costiveness, indigestion, and foul stomach, or headache, take one tablespoonful on going to bed at night. It is a gentle purgative and moves the bowels without pain.

THIS REMEDY CURES

Diphtheria or Putrid Sore Throat, Bronchitis, Common Sore Throat, Hoarseness, Costiveness, Salt Rheum, Indigestion, Foul Stomach, Etc., Etc.,

—AND IS—

THE BEST BLOOD PURIFIER OF THE AGE!

It has been used with unequaled success in Scrofula, and all corrupt humors in the blood are quickly expelled by its use.

SOUTHWORTH & GRATTAN, Wholesale and Retail Agents,

STOCKTON, CAL.

For Sale by Druggists and Grocers Throughout the State.



PORT COSTA WAREHOUSE AND DOCK CO.

Located at Port Costa, California.

G. W. McNEAR, - - - - President.

STORAGE, 60,000 TONS CAPACITY.

Liberal advances made and insurance effected at lowest rates. The Port Costa Warehouses are regular for delivery of Wheat sold on Call Board. Frequently Wheat is in demand for Call Board delivery, and brings much higher prices than Wheat to arrive, as deliveries have to be made within five days after call, in lots of 100 tons, piled and inspected. Wheat at Port Costa, when on the market for sale, can be sold and cashed at once, with no fear of rejection or drawbacks of any kind, as the grain is on the spot for inspection. Grain received from car or barge, without extra expense of any kind to shippers, and prompt returns made. Attached are superior Cleaning and Smutting Mills for the handling of all grades of inferior grain.

For further information, apply to

G. W. McNEAR,

306 CALIFORNIA ST., SAN FRANCISCO, CAL.

Agricultural Notes.

CALIFORNIA.

Alameda.

Crops.—Haywards *Journal*, May 21: Robert Knudson, of the Half-way house, stated, on Wednesday, that the crop prospect in his section was exceedingly good. Johnny Alves, of the Spier ranch, also reports the crops coming out much better than at first expected, and claims to have the boss 50 acres of chevalier. The cool weather for two weeks past has been the saving of the grain in this section, and it is now filling out finely. All agree that it will be plump and of fine quality. Some of the late-sown grain is, of course, backward, but it is growing nicely. There are portions of the township where the crops will not turn out very well. The hay crop, though not heavy, is of much better quality than last year. A great deal has already been cut.

The Pear Slug has been depositing its eggs on the leaves of the pear and also the cherry trees, and will hatch out about June 1st. It would be well for orchardists to look out for them. State Inspector Klee's remedy for destroying the above pest is worth trying.

Butte.

An Oroville Farm.—*Register:* Four years ago M. L. King came here and bought 40 acres of rough, brush-covered land situated near Feather river and about three-quarters of a mile from Oroville. Doing all his work by himself and using only one horse to plow with, he has cleared about 25 acres, fenced it and planted most of it to trees and vines. He has on the place 100 large and very thrifty orange trees and 300 that are about six feet high; 100 fig trees; 350 apricot trees that are loaded with splendid fruit, and about the same number of peach trees that give promise of an abundant crop. He has almonds, walnuts, palm, prunes, plums, 50 cherry trees, 70 apple trees and 75 olive trees. There are 3000 bearing grapevines, mostly white Muscat and Zinfandel. His blackberries, strawberries and currants show that he will have an abundant crop. Last fall his Japanese persimmons were among the finest in the citrus fair at Sacramento. Mr. King has built a good dwelling—being a mechanic—fenced the land and done a large amount of work on the farm.

Contra Costa.

The Outlook.—Martinez *Item*, May 21: Mr. Simon Blum has recently visited the southern and western portions of the county, and reports that the cool weather has brought out the wheat and barley wonderfully. Barley that eight or ten days ago was scarcely a foot high has grown well, and is now heading out. The barley crop in San Ramon, Green, Taylor, Briones and Pinole valleys will be ⅔ more than it was last year. Late sown wheat looks badly in some sections, but early sown and summer-fallow looks better than it did last year. Wheat in the vicinity of Alamo looks splendidly, is level with the fences, and is filling finely. Taken together, the wheat and barley yield may reach ⅔ of the usual crop. Fruit is very promising everywhere in Contra Costa. Especially will there be large yields of apricots, plums, pears and grapes.

An Arbor Club.—Cor. *Bee*, May 22: The ladies of Antioch have formed an Arbor club, intending to plant and provide for trees beside the road from the depot to the town, a distance of about a mile and a half.

Humboldt.

Improved Ranches.—Garberville Cor. *Standard:* Two days ago we had a ramble over Joe Swithenbank's ranch, and a finer lot of sheep and cattle we have never seen. Mr. S. has, if not the largest, the best improved ranch on the South Fork, and is an extra good manager, and consequently successful. He is a man we like to see prosper, because he is one of those whole souled fellows whom money does not spoil. South of Mr. Swithenbank's is a little ranch worth looking at—only 160 acres—belonging to B. F. Stahl. Two years ago he pre-empted this quarter-section. People said he was crazy, but to-day he has it all under fence, a barn built, a neat dwelling-house nearly completed, 20 acres in grain and a fine garden with a great variety of vegetables. Mr. Stahl commenced to clear this land two years ago, and now look at the result. He has 11 in his family and had no resources, nothing to fall back on save work; and yet there are persons who have been living on the South Fork for 20 years and have made no improvements whatever save those necessary to swear by in proving up on their land.

Glanders.—The committee out looking for animals affected with glanders ordered two horses killed in White Thorn valley which were badly afflicted with the disease. Four animals had already died of the malady in the same section.

Encouraging. — L. Wheat, a prominent stock-raiser from Camp Grant, brings very encouraging reports from his section relative to a plentiful supply of feed for stock and a splendid outlook for fruits. Camp Grant has been the most successful and extensive fruit-raising section, up to this time, in the county.

Inyo.

Abundant Promise.—*Independent*, May 21: Never before was there such a prospect for a fine fruit crop around Independence as at present. Apricots and nectarines are already nearly as large as hen's eggs, apples, pears, peaches and plums are of good size, and all trees are heavily laden. Fruit-growers all make like reports.

Lake.

The Frost was Light.—Lakeport telegram, May 22: The late frost did little damage in Lake county; the vineyard men say they can detect scarcely any in the vineyards; a little of the very early fruit was injured slightly, but the rest is all right; some of the very early vegetables were also cut down, but that is all the damage done.

Los Angeles.

Editors Press:—Hundreds of tons of hay are lying in all stages, from the sickle to the large, well-cured shock. Very little is stacked yet. Weather is cool and cloudy, with frequent light showers to-day. The prospects are for little or no more rain. We are glad to see the showers so light, as much rain now would cause great loss of hay. Crops here are not the best, though there will be enough to keep prices reasonable.—D. J. O., *Spadra, May 19.*

A Good Gopher Trap.—Pasadena *Union:* Mr. Nelmes has an owl's nest in his barn at Glenrosa. On the 2d five young owls hatched out. On the morning of the 3d six dead gophers lay near the nest waiting to be devoured. The owls took possession of the pigeon-house five years ago and returned every season, when they have to retake their quarters by (generally) devouring a pair of young pigeons and driving the old ones off. Mr. Nelmes believes they have done no other harm, and will gladly sacrifice a pair of young pigeons once a year for such valuable friends.

Placer.

Fine Fruit Prospects.—*Bee*, May 19: J. F. Madden, of Newcastle, was in Sacramento to-day. He says that between Penryn and Auburn comparatively no damage has been done to fruit by the frost. The prospect for an enormous yield, and of the best quality, was never better. Apples, pears, peaches, apricots, plums, etc., are looking splendidly, and in the section mentioned the damage to grapes is so slight as to be almost inappreciable.

Superb Grain.—Auburn *Republican:* The banner wheatfield of the county is Peter Ahart's, just north of Lincoln. He has 800 acres of White Chili wheat, and there are 640 acres in one field which excites the admiration of all who see it. It stands nearly three feet high, while the tops are as even and level as a floor. It was sowed broadcast in October and November on summer-fallowed land, which has been in grain since 1854, except the four years preceding the present crop, when it was used to pasture sheep. This is the best crop it ever produced, and it seems to grow better with age. Mr. Ahart expects to begin heading by the middle of June, and thinks his wheatfield will yield between 20 and 25 bushels to the acre. He also has 400 acres of barley, or 1200 acres in grain all told. The latter is also in fine condition, and will probably be ready to cut by June 1st. It has been reported that one farmer near Sheridan has contracted to sell his crop for $1.80, but the highest that has been offered around Lincoln is $1.55, which found no takers. The farmers are sure of a good crop and expect high prices.

San Benito.

Artesian Water.—*Free Lance*, May 20: E. F. Fallon's artesian well is now down 255 feet. The drill has passed through several layers of clay, sand, etc., and is now working in rock. The water is already flowing over the top of the well, and indicates that with a little more work an exceedingly fine flow will be obtained. This well has been bored in a territory heretofore considered outside the artesian belt line, and will add greatly to the value of thousands of acres.

Good Grain.—B. F. Haun came over from his ranch on the other side of the Quien Sabe, Wednesday. He brought a sample of his wheat which measured four feet one inch in hight. His barley measures three feet and eight inches in hight.

Crops.—The outlook is generally more favorable than was at first thought. The summer-fallow and early sown grain is looking well, and will yield heavily. The late sown grain, except in most favored places, is very poor, and in some localities will hardly be worth cutting for hay.

San Bernardino.

The Finest of Oranges.—The San Bernardino *Index* reprints this compliment from the Pontiac (Mich.) *Gazette:* We have picked oranges from trees on the Mediterranean islands, on the West African coast, on the islands of the Antilles, and in the Southern States, but never tasted that fruit so luscious, finely flavored and juicy, as from a box received last Tuesday per express from San Bernardino, Cal.

San Diego.

Tia Juana Notes.—Cor. National City *Record*, May 17: Hay-making is now the order of the day. The crop is light, but of good quality. Mr. Clark cuts his fourth crop from one sowing of barley. It is the best piece in the valley. The fruit trees are well loaded. Peaches, apricots and apples will be plentiful, while grapevines are generally overloaded.

San Joaquin.

Irrigating Pump Tested.—Lodi *Cyclone*, May 19: The experimental starting of the Lawrence & Hutchins irrigation pump, Sunday, was a success. There was a large concourse of people from Lodi, Woodbridge and Lockeford, as well as a few Stocktonians, on hand to witness the first effort of what is expected to revolutionize farming in the Mokelumne valley. The pump was set to work under a light head of steam and threw a stream that filled the flume, which is 10 feet wide, to a depth of 10 or 12 inches with a current that ran like a young river. The ditches were not deemed strong enough when the levee had been elevated above the level of the land, to stand too great a pressure, and so the water was carried only a short distance in the canal and then left to submerge a wheat and alfalfa field near by. Everybody seems delighted with the successful trial.

San Luis Obispo.

Orchard Outlook.—San Luis Obispo, May 23: This is the first year of fruit culture on the Huer Huero and already it is necessary to pick large quantities to save the overloaded trees. Reports from different parts of the county show that the fruit yield will be enormous. Near town, lemons and oranges make a splendid showing. J. P. Andrews has in his orange grove several trees five years old, which will bear nearly 1000 oranges each.

Swarms of Blackbirds have appeared in this county, and are doing considerable damage in the grainfields. In some quarters their depredations are so severe that farmers employ gunners to guard the fields.

San Mateo.

Flax.—*Times and Gazette*, May 21: W. E Stanton's flax crop is a fine one, the flax standing from 22 to 28 inches above the ground. Mr. Stanton says that W. H. Hatfield, the promoter of the work, is well pleased with the appearance of the crop and is only sorry there is so little more like it.

Solano.

Editors Press:—The weather the past week has been quite cool for the time of year, and clouds hang around and threaten rain. We have not had any frost this month. L. W. Buck's cherry crop is very good. Bassfords will be through picking in a couple of days. H. Bassford has been sending from 50 to 80 boxes East daily the past week. Apricots are ripening pretty fast for cool weather, and will soon be plenty. The shipments East will make a large difference in the amount sent to the San Francisco market. The carload sent East from Winters last week would have been in the San Francisco market by this time. Fruit is picked much greener to ship East than to San Francisco, and, as a general thing, all the early fruit is picked too green even to be good eating. It is somewhat like the bananas we get here, that have to be put in a sweat-house and half cooked before we can eat them. Haying is pretty well through with. Grapevines are loaded with blossoms, and are already locking together. There is a prospect of a good crop, and the impression is that grapes, especially wine-grapes, will bring a good price. Lusk's agent was at Vacaville and Winters a few days ago and bought several lots of apricots at $1.60, delivered at the cars in 60-pound boxes; also, some to be delivered in Oakland at $1.75, which is about the same price. J. W. Gates sent some tomatoes to the city last week, the first of the season from Vacaville. The first tomatoes do not amount to much, as they come from the blossoms that are on the vines when they are transplanted from the hot-beds. It generally takes a Chinaman half a day to gather a box. After those few blossoms mature, it is from 10 days to two weeks before any more ripen. Mr. Gates has rented a young orchard to some Chinamen to raise vegetables on; they have already raised a crop of Irish potatoes, which were sold at from two to four cents per pound, and now are putting in sweet potatoes. Crops between young trees here do not seem to hurt them the first two years, and about pay the expense of cultivating, which is from $10 to $12 per acre.—G., *Vacaville, May 22, 1887.*

Carp Thriving.—Dixon *Tribune*, May 21: Carp in large numbers and weighing from five to ten pounds each are being captured in the shallow waters that are tributary to Cache, Haas and other sloughs. The usual method is to lie in wait and shoot them while they are in search of spawning grounds.

Sutter.

Good Prospects.—Marysville, May 21. Geo. Ohleyer says: In Sutter the grain crop promises to be of the full average, which means in that county about 25 bushels to the acre. Some fields of wheat seem good for 40 bushels an acre. Grain on summer-fallow is looking remarkably well. The amount in grain this season is 10 per cent above the average. The foregoing applies to Yuba also, with the exception that the average yield of that county does not equal Sutter's average of 25 bushels to the acre. The harvesting of barley begins in a few weeks. The grain in some places is fast turning yellow. The crop of Yuba and Sutter promises to be at least 25 per cent better than last year.

Sonoma.

Fruit Promising.—*Index-Tribune*, May 21: The peach and apple crop in Sonoma valley will be extraordinary this year. There will also be a heavy yield of plums, nectarines and all other fruits except cherries, which are reported very short.

Insect Foes.—Santa Rosa *Democrat*, May 21: One of our leading farmers stated Saturday that the greatest enemy which the fruit-growers are having to cope with this spring are caterpillars and pumpkin-bugs, which are more numerous than for some years past.

What Ails the Oats?—I. S. Cook has a 20-acre field of oats about four miles west of this city which has caused no little comment among the farmers in that neighborhood. Until attaining a hight of six inches the grain exhibited every sign of healthful vigor, but since that time, now two weeks ago, it has not grown an inch, although retaining its healthful appearance. Its roots seem to be dwarfed, and are coated with a substance resembling mildew.

Late Frosts.—*Index Tribune*, May 21: There was more damage done by the recent frosts than at first reported, but immediately around Sonoma and Glen Ellen the loss was merely nominal. Farther up the valley appeared rows of dull, dead, brown leaves, where a day or two before lines of green, flourishing, fruit-bearing vines had existed. Crabb's Black Burgundy fell at the first onslaught, wilted and withered away as if weary of life; the Zinfandel showed that its days were passed, the Berger followed its Hungarian friend, and the Malbec and Gutedel both acknowledged their inability to stand stress of weather.

Tulare.

The Latter Rain.—*Register*, May 20: Tulare was visited by a heavy shower Wednesday night, there being a fall at this place of about one inch. It will probably do more good than harm as it is, but the balance on either side of the ledger will not be great. Many thousand acres of grain and alfalfa hay are down and in the cock and winrow, and much of this will be damaged, anyway, and ruined if the rains continue for two or three days. On the other hand, some of the late sown grain will be made to fill out nicely that would have amounted to nothing but for the rain. Much good will also result to gardens and newly planted orchards and vineyards. The southern portion of the county did not get so much rain as Tulare and vicinity.

Peaches and 'Cots.—Visalia telegram, May 20: The first box of ripe peaches of the season arrived in town to-day from Boyd & Thomas' orchard, in Stokes valley. The first ripe apricots of the season were sent to S. F. from the same orchard May 10th, two days earlier than those from Phœnix, A. T.

Ventura.

The Honey Interest.—*Free Press:* There are probably nearly 20,000 hives in the county. Two years ago the county produced about 3,000,000 lbs. of honey, but the present year was not so favorable and but about half that amount was produced. In many cases 400 lbs. to the hive have been produced. One apiary of 700 hives, and surrounded by bees amounting in all to 1800 hives within the radius of one or two miles, averaged 130 lbs. each. Another apiary containing 445 hives in the spring, increased to about 1200 and yielded 80 tons of honey two years ago. These are presented as fair examples of the products of the honey-bee in his section.

Yolo.

Petty Prodigies.—Woodland *Democrat*, May 19: We saw a strawberry at Brendel's fruit store yesterday that measured five and one-half inches in circumference. It looked as if about six berries had all grown together, as their outlines could be plainly seen. O. Collier brought into this office to-day the largest hen's egg we have ever seen—the product of a Brahma pullet. It measured eight inches in circumference and was three inches long.

The "Boss" Berries.—Yolo *Mail*, May 21: Jerome Baker brought to our office Tuesday six boxes of the largest and finest strawberries ever raised. Our box (an ordinary one-pound box) was full, and on actual count held just 18 berries, averaging five inches each in circumference. In the other five boxes the berries were nearly as large. Mr. Baker sent them to a friend in Sacramento, who, we hope, will show them to the *Bee* and *Record-Union*, as we know this story requires corroboration. These berries are the second crop and were raised three miles north from Woodland, where Mr. Baker has about five acres out to strawberries.

Mulberries.—The fruit of the mulberry tree has ripened in this vicinity.

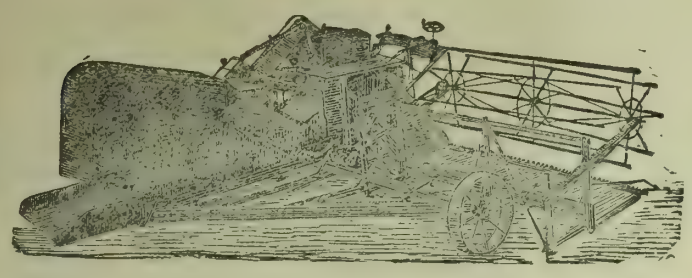
OREGON.

Crop Prospects.—*Willamette Farmer*, May 19: The weather has finally conformed to the season, and warm sunny days succeed the wintry atmosphere that had so far invaded May. The way green things have grown the past week is a caution to unbelievers. We see that sprouts of fruit trees made six inches growth in a single week. Winter wheat has suffered badly from the cold storms of springtime. We went through a field of this grain that was badly "fired," or scalded, and old judges feel sure that the crop of Western Oregon will be inferior, and that the heads will not fill as well on fall sown as on the spring sowings. Grass is a good crop on meadows, and our hay harvest should be a large one. Pastures are fine and stock are thriving everywhere. The oat crop should be heavy unless the rains give way to permanent drouth. It is hardly possible that such should be the case with so many mountain ranges lifting great bodies of snow to condense the air that comes from the ocean. The fruit crop is seriously injured in some localities; cherries especially are a light crop. From all we learn the aggregate will be enough to show the world that Oregon can turn off enough fruit to meet all reasonable demands.

MATTESON & WILLIAMSON,

THE PIONEER HARVESTER BUILDERS OF THE WORLD.

Not One of These Harvesters Has Been Returned.



Not One of These Harvesters Has Been Returned.

THE HARVEST QUEEN.

MATTESON & WILLIAMSON,

The only manufacturers in Stockton who make a specialty of making everything needed by the farmer in seeding and harvesting. Among their latest triumphs in harvesting machinery is the unrivaled

HARVEST QUEEN,

To Which They Invite the Attention of the Careful Farmer.

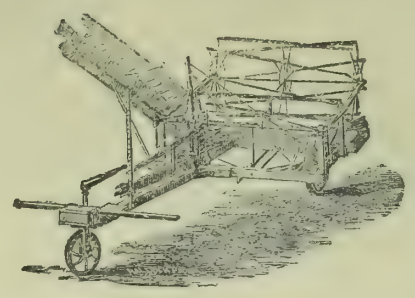
This machine was first placed in the field during the harvest of 1886. From the testimonials of those who have had it in use it is considered the peer of any now offered for public favor. For stanchness of build, lightness of draft, economy of manual labor and animal power, and in saving and cleaning the grain, its equal has yet to be produced. It is so furnished with efficient and ready operating brakes that the lives and limbs of operators are in no degree endangered. A limited number of the HARVEST QUEEN are being constructed for the harvest of 1887.

ORDERS AND CORRESPONDENCE SOLICITED.

☞ We refer you to the following-named persons who have had the Harvest Queen in use during the past harvest season: D. P. Edwards, Maxwell, Colusa Co.; H. Beckman, Woodbridge; H. W. Childs, Acampo; Ralston & Grigsby, Acampo; Yosemite Stage and Turnpike Co., Madeira; H. W. Patterson, Borden.

GRANGERS' UNION

STOCKTON.



HEADQUARTERS FOR

FARM MACHINERY,

Empire and Buckeye Mowers,

HODGE-HAINES HEADERS,

MITCHELL & CALDWELL WAGONS, THOMAS RAKES,

Derrick Forks, Blocks, Rope, Corbin Harrows,

PLOWS, CULTIVATORS,

Iron, Steel, Coal, Barbed Wire,

And All Kinds of

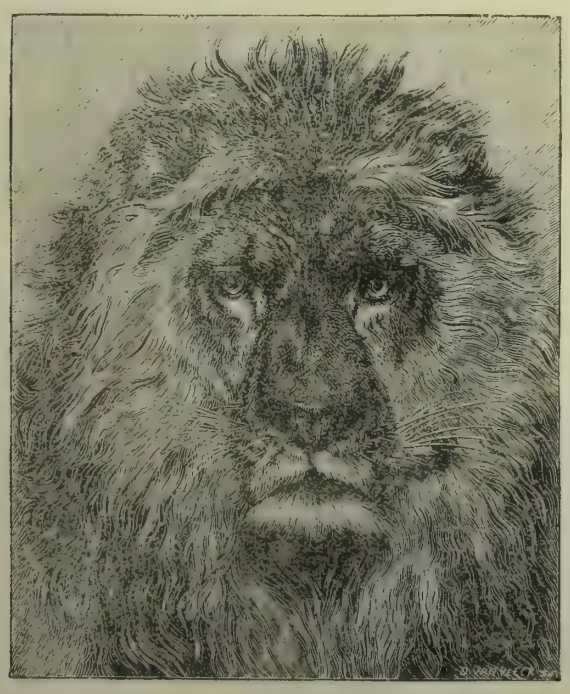
BUILDERS' HARDWARE.

FARMERS!

Insure your Grain in the Field or Warehouse

— IN —

THE LION



FIRE INSURANCE CO.

Of LONDON, ENGLAND.

☞The LION'S Policies are models of simplicity, and no dispute has ever arisen under them as to the amount due at time of loss.

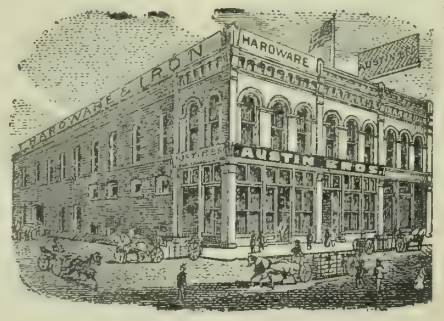
GEO. D. DORNIN, Manager. WM. SEXTON, Ass't Manager.

FRANK E. AUSTIN & CO., Agents, STOCKTON, CAL.

AUSTIN BROTHERS,

SHEET AND **BAR IRON.**

Blacksmiths' SUPPLIES.



BRASS GOODS.

IRON PIPE AND **FITTINGS.**

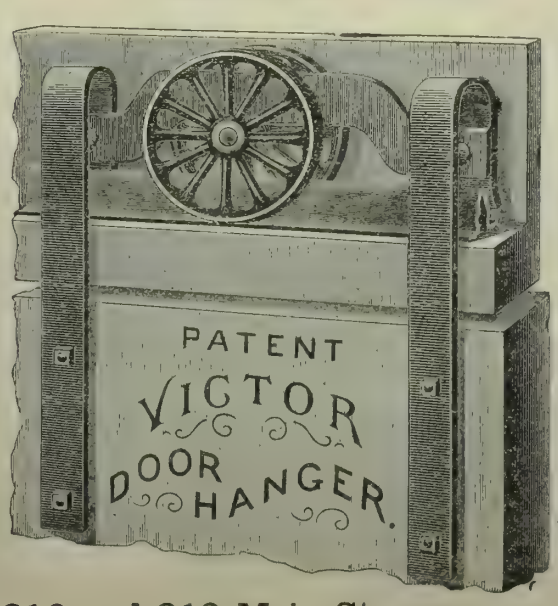
ROPE.

—IMPORTERS OF—

Builders' and Carriage HARDWARE,

LEATHER and Rubber BELTING, Packing, Hose, Etc.

MECHANICS' TOOLS A SPECIALTY.



—THE—

"VICTOR"

WROUGHT

HANGER

—AND—

RAIL,

—FOR—

Barn, Warehouse and all Heavy Sliding Doors.

SIMPLE, STRONG, SECURE, SAFE.

310 and 312 Main St., Stockton, Cal.

The Improved Link and V-Belt Combined Harvester.

Under the above caption we call attention to the advertisement of Messrs. Holt Bros., elsewhere in the RURAL. Their advertisement has been known as the Stockton Wheel Co., which was founded in Stockton about four years ago. The same enterprising firm has a much larger factory of the same kind in Concord, New Hampshire. Their Stockton premises comprise the main building, 45x100, three stories in hight, and constructed of brick; the storehouse 75x90 feet; the harvester building 35x150 feet, and the lumber shed 20x120 feet in dimensions. Their factory is equipped with all the latest improved machinery, and furnishes employment to from 25 to 30 hands. The products comprise Sarven patent and wood-hub wheels, bodies, headers, combined harvesters, etc., only the best material being used; and as only skilled workmen and superior machinery are utilized, the goods are sure to be perfect. The firm has a large establishment at 30 and 32 Main street, San Francisco, four stores and a basement being occupied, each 47½x137½ feet in dimensions. Here they carry a full stock of goods in their line, and all the business transactions of the house are conducted here. They carry here a full line of carriage hardware, such as springs, tires, axles, bolts, clips, etc., and a full line of trimmings.

They have also erected a spacious building for the construction of the Improved Link and V-Belt Combined Harvester, that, it is claimed, will cut, thrash, clean and sack more grain in a season, with less expense, than any other machine of the same capacity in the market. In all respects this house occupies a leading position in the trade, not only with regard to the superiority of its output, but it is equally conspicuous for the enterprise of its business policy and the liberality and promptness with which its dealings are conducted.

Diphtheria.

There is no modern disease that has proved so fatal to children as diphtheria or putrid sore throat. Of late it has been common among adults, with quite fatal results. Dr. C. Grattan, of Stockton, has made this disease a special study for 10 years, and devised a compound that has been highly successful as a remedial and curative agent. It has gained a State reputation as a blood purifier and family medicine for general debility and chronic diseases. It is known as Dr. C. Grattan's Special Remedy for Diphtheria.

Hale & Co.

In one of our cuts showing Main street, near the courthouse, is seen the name of Hale & Co., dry goods, etc. This firm has stores in the chief interior cities, among which are Sacramento, Petaluma, San Jose, Salinas City, and a purchasing house in San Francisco. By making large purchases they are enabled to sell goods at corresponding low rates. In each city where located they have taken and maintained a leading position. Their system, under enterprising managers, illustrates the benefit of combination of capital, and their liberality is shown in the low price at which they sell goods.



FAIR GROUNDS OF THE SAN JOAQUIN VALLEY DISTRICT ASSOCIATION. [See first page.] *Photo. by Batchelder.*

For Sale.

State and County Rights of a Fly Trap; warranted to keep your house free from flies. Send stamp for particulars to Z. Xevers, 208 Brannan St., San Francisco, Cal.

THE IMPROVED LINK AND V-BELT COMBINED HARVESTER!

The following are some of the advantages our Improved Harvester possesses over all others:

1. Our Improved Harvester runs FOUR horses lighter than any other machine made.
2. It is easily handled, and turns a square corner as readily as a mowing machine.
3. It is less liable to get out of order, and cheaper to keep in repair than any other machine.
4. It has no clumsy, expensive gearing to wear out or break.
5. It is run mostly by Link and V-Belts which, in case of breakage or accident, can be repaired in the field without loss of time.
6. Our Harvester makes no noise to frighten or irritate the horses, and makes less noise than ordinary headers.



7. Our Header is far the simplest and runs the lightest, and is the strongest and best. There are no Rickety Gears or Trembling Rods to break.
8. The Header may be raised and lowered instantly from any part of the Separator.
9. Our Harvester WEIGHS FIFTEEN HUNDRED POUNDS LESS than any other machine of the same capacity in the market.
10. It will cut, thrash, clean and sack more grain in a season, with less expense for labor and repairs, than any other Harvester ever turned out.

Remember, all our Improved Harvesters are warranted to work well or no pay. Examine them before purchasing elsewhere. We shall sell our Harvesters upon their merits alone.

Send for Testimonials and Price List.

Manufactured by THE STOCKTON WHEEL CO., Stockton, Cal.

For further information and Price Lists address STOCKTON WHEEL CO., STOCKTON, CAL., or

HOLT BROTHERS, 30 and 32 Main St., San Francisco,

Importers of WAGON and CARRIAGE MATERIALS and HARDWARE, and Manufacturers of all kinds of WHEELS, WAGON and CARRIAGE BODIES, GEARINGS, HORSE CARS, Etc. All work guaranteed to give good satisfaction.

ANGLO-NEVADA
ASSURANCE CORPORATION

—OF—

SAN FRANCISCO, CAL.

Capital, - $2,000,000, paid-up.

Transacts a general Fire and Marine Insurance business throughout the United States. Local Agents in all of the principal towns, to whom FARMERS can make application for insurance on GROWING CROPS, and on Hay and Grain in field, as well as on farm property. All losses promptly and equitably adjusted.

PRINCIPAL OFFICE,

410 Pine Street, San Francisco.

MERY'S IMPROVED PIONEER **BARLEY CRUSHER**

Using the Benoit Corrugated Rollers.

STILL AT THE FRONT!

VALUABLE IMPROVEMENTS HAVE BEEN ADDED THIS YEAR.



This Mill has been in use on this Coast for 6 years,

TAKEN THE PREMIUM AT THE STATE FAIR

Four years in succession, and has met with general favor, there now being

Over 200 of them in use in California, Nevada & Oregon

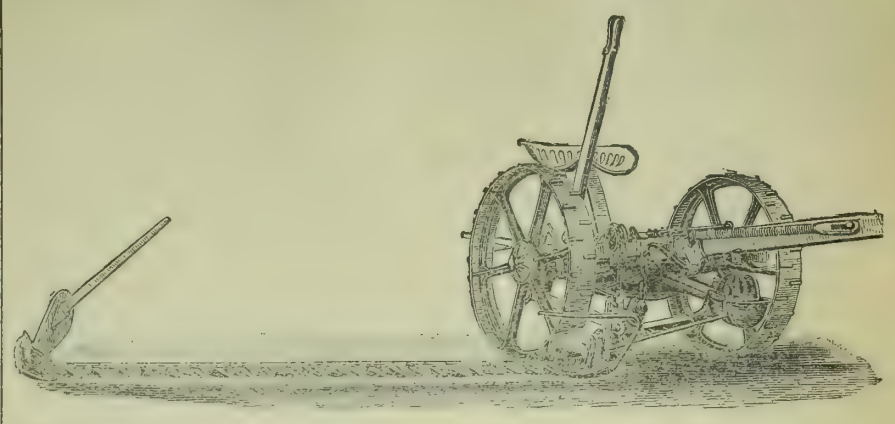
It is the most economical and durable Feed Mill in use. I am sole manufacturer of the Corrugated Roller Mill. The Mills are all ready to mount on wagons.

I thank the public for the kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY,

CHICO IRON WORKS, CHICO, CAL.

THE STANDARD MOWERS.



The Only Successful and Practical

WIDE-CUT MOWERS.

The entire weight of the Cutter Bar being suspended on the Spring prevents the Bar from dragging on the ground, thus doing away with all side-draft and enabling us to use a 7-foot bar, thereby accomplishing a feat which cannot be done by other machines.

It has more cutting power, because nearly the whole weight of the cutter-bar and the inside and outside shoes is carried on the drive-wheels, thereby increasing the "*Traction*" more than enough to make up for the additional length of the knife.

The 7-foot Mower is as Light Draft and as easy to handle as any 4-foot Cut Mower made.

Remember with two horses and one man the 7-foot Mower will cut 20 acres of grass per day.

SIZE OF MACHINES:

4 Feet 3 Inches, 6 Feet, 7 Feet.

Send for Circulars.

FARMERS' UNION,

San Jose, Cal., Agent for California.

P. A. BUELL & CO.

ENTERPRISE PLANING MILL,

Nos. 457 to 469 Center St., Nos. 462 to 470 Commerce St.,

STOCKTON, CAL.

Telephone No. 76. P. O. BOX 380.

Doors, Windows, Blinds, Door Frames, Window Frames, Screens, Screen Doors, Moldings, Stairs, Counters, Store Fronts, Saloon Fixtures, Tanks, Boxes, Brackets, Turnings, Mantels, Hard and Soft Woods.

Call your attention to the following facts concerning our Extensive Planing Mill:

1. Our Buildings cover 30,000 square feet.
2. We have all the Latest Improved Machinery, and have erected the most improved Lumber Drier, at a cost of $2000. All our stock is kiln dried. (Not another mill in the State is doing this.)
3. Only thorough mechanics are employed; and all are under our personal supervision.
4. It will pay you to write for estimates before ordering elsewhere.
5. We will contract to deliver work in Los Angeles, or in any other part of California, in Arizona, Nevada and Utah.

P. A. Buell & Co.,

STOCKTON, CAL.

W. W. MONTAGUE & CO.,

STOVES, RANGES,

SHEET IRON, PUMPS, IRON PIPE,

Tinners' and Plumbers' Tools and Supplies.

309, 311, 313, 315 and 317 MARKET ST., SAN FRANCISCO.

A. T. DEWEY. W. B. EWER. GEO. H. STRONG. } Dewey & Co.'s Scientific Press Patent Agency { ESTABLISHED 1860

INVENTORS on the Pacific Coast will find it greatly to their advantage to consult this old, experienced, first-class Agency. We have able and trustworthy Associates and Agents in Washington and the capital cities of the principal nations of the world. In connection with our editorial, scientific and Patent Law Library, and record of original cases in our office, we have other advantages far beyond those which can be offered home inventors by other agencies. The information accumulated through long and careful practice before the Office, and the frequent examination of Patents already granted, for the purpose of determining the patentability of inventions brought before us, enables us often to give advice which will save inventors the expense of applying for Patents upon inventions which are not new. Circulars of advice sent free on receipt of postage. Address DEWEY & CO., Patent Agents, 252 Market St., S.F.

The Stockton Combined Harvester and Agricultural Works.

Stockton is leading all other centers in its manufactories of agricultural implements. The plant known as the Stockton Combined Harvester and Agricultural Works is the largest factory of the kind in the State, perhaps on the continent. The works are located in the suburbs of Stockton, near the railroad, and accessible from all points of the compass. It is difficult to give an adequate idea of these buildings, covering as they do about five acres of ground, and thoroughly equipped with the most approved modern machinery. The whole of this large establishment has been erected solely with the idea of permanency and convenience. A well 156 feet deep has been sunk, and the water, placed in three mammoth tanks, is conveyed to every floor of the different buildings, and every precaution has been taken to prevent conflagration. The legends on the various buildings, as seen in the accompanying cut, will give as complete an idea of the extent and variety of industries grouped in this plant as can be had without a visit and detailed study.

The company is made up of some of the most solid and reliable business men in the San Joaquin valley. Otis Perrin, president; F. M West, secretary; E. P. Palmer, manager; N. McEwen, superintendent. The superintendent and manager are practical men in this line of business. They use only the very best material and employ the most skilled labor.

It seems to have been the conception of the enterprising and sagacious men who control this institution to manufacture harvesters adapted to different localities and suited for large ranchers or small farmers. These several harvesters are named Minges, Houser, Shippee and Powell's combined harvesters. The Minges is a pull and belt machine, 30 inch cylinder, 46-inch separator, extra cleaner with 40-inch sieve, high, wide drive-wheels adapted for hard sandy soil, and has been successfully run for about five years. The Houser combined header thrasher is a pull and belt machine, in construction much like the Minges, and is more favorably known throughout the State than any other combined machine, as it was the first combined harvester which achieved success and solved the problem of a cheap method of harvesting. It is a powerful machine, capable of successfully harvesting the heaviest and worst-lodged grain without fear of breaking. The Shippee is a push machine, Nos. 1 and 2, with Shippee and Grattan improvements. They are the only combined machines that have an elevator to run straw into the header wagon, saving all the straw, if desired, also chaff, wild oats and weeds, and cleansing the land of all foul seeds. They enable the small farmer not only to do all his own harvesting, but to market his grain each day, greatly reducing harvest expenses. The Shippee and Houser Works have been consolidated under the above-entitled firm name.

In addition to the service which the combined harvester has done and is still to do in cheapening wheat production and thus benefiting our farmers directly, the machine is also spreading our fame abroad throughout the earth. We have achieved a number of important mechanical triumphs in the design and construction of industrial machinery, but there is none which is attracting so much attention as the combination of reaper and thrasher. Stockton is visited by inquiring travelers from all the agricultural regions of the world, many sent by governmental orders to see for themselves what this wonderful arrangement is which accomplishes so much work at such a little cost per acre. Thus general attention is being called to our industries and our resources which, in fact, but need to be known to be admired. The inventive skill and the investment of capital which has brought the combined harvesters to their present practical, working perfection, deserves well of the country and the prospect is that it will be fully recognized and rewarded.

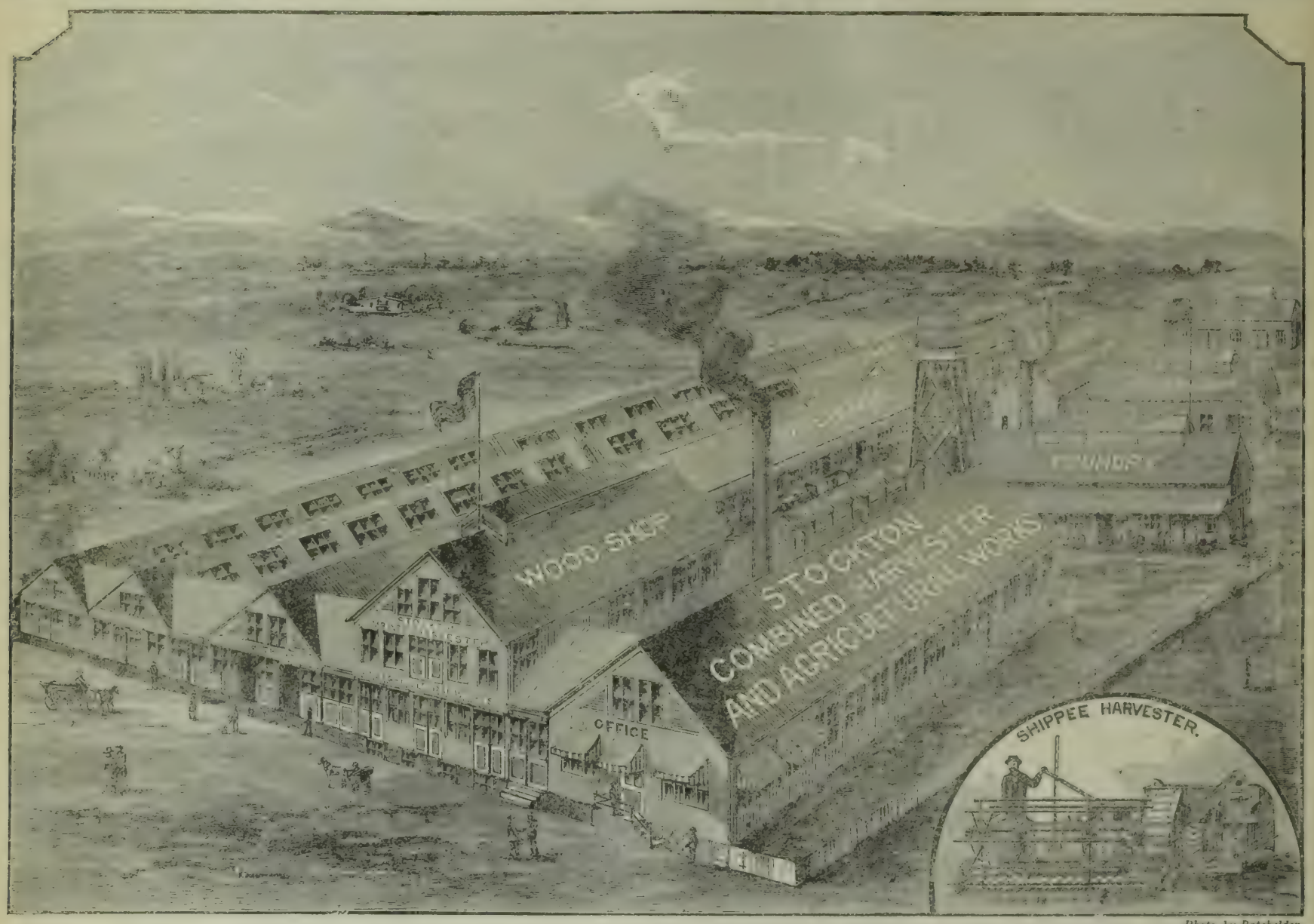


Photo. by Batchelder.

AMERICAN EXCHANGE HOTEL,

319 & 321 Sansome St., San Francisco.

One door from Bank of California.

The above well-known hotel offers superior accommodations to parties visiting the city. The table is kept at top grade and the prices are within the reach of all.

RATES—$1.00, $1.25 and $1.50 per day.

Free Coach to and from the Hotel.

CHAS. & WM. MONTGOMERY, Prop'rs.

WINCHESTER HOUSE,

44 Third Street, San Francisco, Cal.

This Fire-proof Brick Building is centrally located, in the healthiest part of the city, only a half block from the Grand and Palace Hotels, and close to all steamboat and Railroad Offices.

Laundry Free for the use of Families

HOT AND COLD BATHS FREE.

Terms, Board and Room, $1.00 per Day

And upward.

ROOMS WITH OR WITHOUT BOARD.

FREE COACH TO THE HOUSE.

J. POOLEY.

GRANGERS' CO-OPERATIVE STORE,

TENTH AND K STREETS, SACRAMENTO.



DEALERS IN

General Merchandise, Groceries, Agricultural Implements, Wagons, CARRIAGES AND BUGGIES.

A New Deal.

We buy for cash and sell for cash. The old credit system has been abandoned. We will not be undersold. We guarantee all goods as represented. We will give good value for your money. Our motto is quick sales and small profits and speedy returns.

☞Farmers and consumers will find it to their interest to call and see us and be convinced.

T. A. LAUDER, Manager.

293 COLUMBUS Combined MANURE SPREADERS & FARM WAGONS sold the first year. The cheapest Spreader out, and the only kind that can be attached to old wagons. All are warranted. Prices mailed free.



NEWARK MACHINE CO., COLUMBUS, OHIO.

Gloves. If you want a good pair of Gloves, ask your merchant for our brand.

LEAK GLOVE MANUFACTURING CO., SAN FRANCISCO.

UNION IRON WORKS, SACRAMENTO, CAL.

ROOT, NEILSON & CO.,

MANUFACTURERS OF

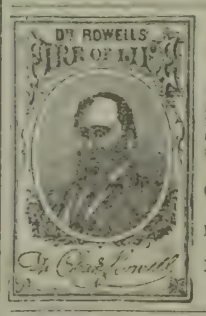
Steam Engines, Boilers,

AND ALL KINDS OF

MACHINERY FOR MINING PURPOSES.

Flouring Mills, Saw Mills and Quartz Mills Machinery constructed, fitted up and repaired.

Front St., bet. N & O Sts., Sacramento, Cal.



A MAGIC CURE

—FOR—

Rheumatism, Neuralgia, Pneumonia, Paralysis, Asthma, Sciatica, Gout, Lumbago and Deafness.

Everybody should have it.

G. G. BURNETT, Ag't 327 Montgomery St., S. F.

Price, $1.00. Sold by all Druggists ☞Call and see

DR. CHAS. ROWELL. Office—426 Kearny St. San Francisco.

HEALD'S BUSINESS COLLEGE, 24 Post St. S. F. Send for Circular.

Shorthand, Typewriting, Penmanship, Bookkeeping.

Rural Health Retreat, (Crystal Springs,) St. Helena, Cal.



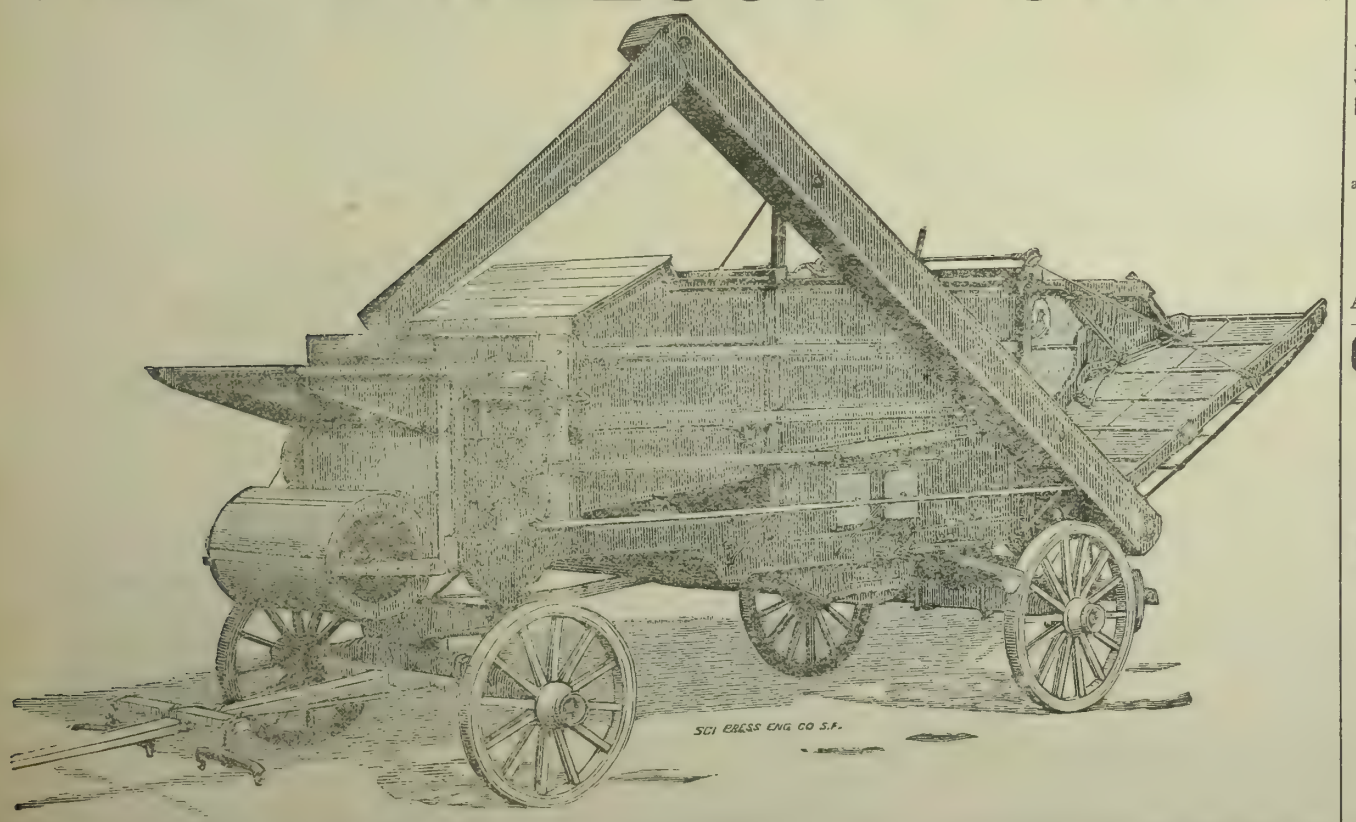
Among the many delightful places for rest, recreation and restoration of mind and frame in California, is the "Crystal Springs Rural Health Retreat," shown in the above engraving on this page. The Retreat is situated on the slope of Howell mountain, 1200 feet above tide-level, 500 above and overlooking Napa valley, and two and a half miles from St. Helena, in Napa county. Among the natural advantages are stated: "Pure water, dry atmosphere, balmy sunshine, even temperature, mild breezes and the absence of high winds. Across the valley lies the Sonoma mountain range, breaking the sea breeze and shielding the Retreat from the chilling atmosphere of the coast, and presenting a safeguard against catarrh and lung diseases. The grandeur of its mountain ranges, with shrubby canyons lying in beauty at their feet, the famous Mt. St. Helena rearing its lofty head to the clouds, the grassy plain lying beneath, reflecting the sunbeams like a grand mirror before the Retreat, all perfumed with a variety of wild flowers, lend an enchantment to the scene. There are no stagnant pools or marshes within range; rainfall is plenteous, rendering irrigation unnecessary, and malaria is a stranger at the Retreat, and in all this beautiful valley. In fact the purity of the air on this hillside and in the upper valley is a specific for malaria, and all diseases affecting the head, throat and lungs, producing a healthy circulation through the mucous passages generally."

The Rural Health Retreat is twofold in its character. In the first place it undertakes to do direct work in the cure of diseases by hygienic and rational practice, by thoroughly competent physicians resident in the Retreat. While a radical table is furnished for invalids, and proper diet prescribed for each individual case, no one is confined to a starvation diet, and better and more ample variety is furnished at meals than is usually found upon invalid tables elsewhere. The managers have the services of two thoroughly competent physicians from Eastern cities of many years' experience in practice. They are assisted by two lady attendants, having a two-years' course at one of the largest hygienic and surgical sanitariums in the world, with five years' subsequent practice.

The Retreat is also a summer and winter resort to all who desire to spend a few weeks or months in recreation, and receive the benefit from rest and breathing this mountain air, whose healthfulness and purity is unsurpassed. For such, a liberal table is especially provided. While the chief object of this institution is to afford a sanitarium for those in need of hygienic and surgical treatment, ample means are afforded for recreation, and entertainment is provided for all boarders and pleasure-seekers who love decency and good order. Winding and picturesque roads, walls of blasted rock terracing the side-hills about the main building, cottages and driveways, a fine campus, spacious woods, shady groves, arbored seats, swings, swinging rings, swinging chairs, will be furnished; dumb-bell and Indian club exercises given to such as may desire them. Calisthenic exercises will also be led by a competent leader. To accommodate their increasing patronage the proprietors have been enlarging and building quite extensively, and in many ways improving their facilities for making the Retreat yet more comfortable for their guests.

It is certainly one of the best sanitariums, all things considered, in the United States. We feel an especial interest in the Rural Health Retreat, because one of the proprietors of this paper, with his family, has greatly enjoyed a recreation season there. They assure us that they are exceedingly well pleased with the Retreat for its natural and added beauties and comforts, and for the pure moral tone, the kindliness and cordiality, which prevail in the management. The accessibility of the Retreat should also contribute to its desirability, both to the invalid and the pleasure-seeker. We advise health and pleasure-seekers to send for printed reports and further information.

THE MINNESOTA CHIEF.



The CHIEF OF THRASHERS and SEPARATORS.

IMPROVED FOR 1887.

Manufactured at Oakland, Cal. We guarantee it to be the BEST GRAIN SAVER AND CLEANER and FASTEST THRASHER in the Market. ☞SEND FOR CATALOGUE.

Manufactory and Salesroom, Cor. Second and Washington Sts. **JNO. F. LINCOLN, Manager.**

Money Loaned

On Country Real Estate in large and small amounts, at lowest rates, by A. Schuller, 106 Leidesdorff St., room 3. **

THE King of Soaps makes washing easy.

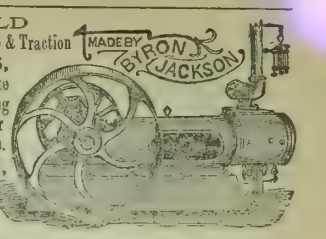
Thoroughbreds by Auction.

Elsewhere will be found an advertisement giving particulars of a large auction sale of thoroughbred live-stock to take place in a short time, Killip & Co. being the auctioneers.

First-Class Mowing Machine for Sale.

A brand-new mower of well-known make can be obtained cheap for cash by addressing D. F., Box 2361, San Francisco, Cal.

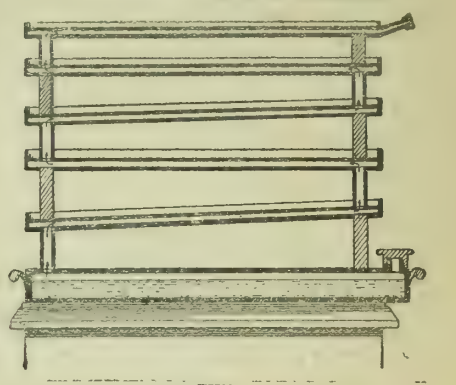
I BUILD
Stationary, Portable & Traction
ENGINES,
And furnish Complete Power and Pumping outfits. Write for Circulars and Prices.
BYRON JACKSON,
525 Sixth St.
SAN FRANCISCO.



HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia, Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

J. R. CATES & CO. PROPRIETORS,
417 Sansome St. San Francisco



THE

Common Sense Evaporator

(Of NEWARK, OHIO).

Where known Drives all other Fruit-Driers out of the Market.

Patented 1886.

12,000 ALREADY SOLD,

And orders for 34,000 more. Perfection of simplicity, cheapness and rapidity of work. Thirteen Dollars will Buy a Machine that will do better work and more of it than any $50 Evaporator ever offered for sale, and in like proportion to an indefinite capacity.

Remember this is an Entirely New Departure,

Which completely revolutionizes the dried fruit industry. All fruits perfectly cured in from one to two hours, and with

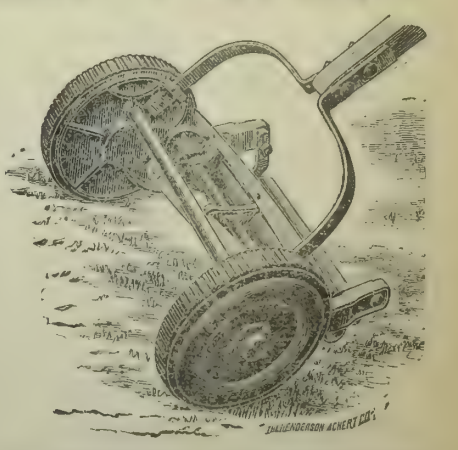
No Possibility of Burning and No Need for Sulphuring.

It may seem incredible, but it is a fact. For circular and full particulars, address

BACHELDER & COATES,
Sole Proprietors for California,
Napa City, Cal.

Agents Wanted—Best selling invention of the age.

CHAMPION LAWN MOWER.



The Most Durable, Practical and Lightest-Running Machine in the Market.

Sizes: 12, 14 and 16 inches.

Factory:

Champion Roller Skate and Wagon Co.
RICHMOND, INDIANA.

Western Agents:

WIESTER & CO., San Francisco, Cal.

ORANGE CULTURE A practical treatise by T. A. GAREY, giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F

From Tuolumne County.

EDITORS PRESS:—This season seems mixed in many ways. Some complain and others rejoice for their fullness. Among the foothills of Tuolumne county hay will be an average crop, and so will fruit. The frost has blighted some splendid gardens, while others are scarcely touched.

A few days ago I visited Sonoma and Columbia, and was surprised at the small damage in sight, when lower down the blight seemed as if a fire had swept the green from grapevines and even the shade trees. Around Jamestown this fact was apparent. Wherever the dew fell, notably in low places, and there was an opening for the north wind, the destruction seemed perfect. Big Oak Flat and Groveland suffered severely. It is really a pity to see such promising crops of fruit destroyed in one or two nights—all the labor of months and years, even, of planting and waiting for the crops which never come. If Californians were easily discouraged, such setbacks, from causes unavoidable, would cause despair and paralyze industry. But year after year it is try again, hoping that the conditions necessary for success will eventually crown the husbandman.

But even Jack Frost has not denuded our county of fruit. Peaches, apples, plums, cherries and other fruits are abundant. Grapes being yet tender, fell an easy prey to frost in places, but I cannot learn of other fruits being injured to any extent. In the higher latitudes the apple may have suffered; but after all the damage, we believe that this season's fruit will be largely in excess of the few former years, which suffered so much through grasshoppers and other causes.

Farmers are busy haying. The weather has been hazy and threatening rain for weeks. To-day is warm and sultry, a ring around the sun all day, which makes farmers timid about exposing much hay. Hay and grain will be higher in price than last year, which was the cheapest for hay on record. Mowers and sulky rakes are busy from morning till night, and it is housed as soon as it is cured sufficiently, so as not to heat and spoil.

We must record fewer chronic tramps scouring the country for a pick-up living. Now and again men able and willing to work come along for bed and board, but it is not a daily tax upon your generosity as formerly. It is to be regretted that the system of farming in California does not necessitate the employment of men by the year so as to create permanent homes for the employed as well as employer. Farmers complain of lack of proper help when harvest comes on all at once; but they have no one to blame; first, because farming on the great plains only requires help for a few months each year, and help must look elsewhere for employment for some eight or nine months. Many finding permanent occupation elsewhere return not to the short and laborious engagement of farming. From early dawn to late at night fatiguing labor has to be borne, requiring young and able men to stand the heat, dust and toil necessary to follow header and thrasher. It is surely money well earned and should be wisely spent, so as to rise above drudgery and dependence upon others for a living. Soon machinery will be so perfected that labor in the harvest field will be reduced to a minimum. The past few years have seen rapid progress toward that end. Electric motors will yet do away with fires and their dangerous action in a harvest-field. But then, how laborers are to be provided for is a problem of the future. JOHN TAYLOR.

Mt. Pleasant, May 22, 1887.

The Great Galloway Sale.

We have already alluded to the joint public sale of imported and native-bred Galloway cattle, to be held at Geo. L. Goulding & Co.'s City Stockyards, Denver, Col., on June 10th and 11th. Leonard Bros., of Mt. Leonard, Mo., and Bush & Morse, of the Windsor farm, Denver, Colorado, will offer 100 head of males and females of the choicest breeding and individuality, embracing selections from four different importations by the Leonards. Most of the cattle offered by Bush & Morse are direct descendants of the stock imported by the Leonards, who, in breeding the same, combined some of the best strains of blood in their celebrated herd. Those desiring Galloways would do well to be represented at the Denver sale.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

MR. JAS. M. MCCARTY, real estate and loan broker, occupies a prominent position as general agent for local and Eastern capitalists. A photo-engraving cut of his residence enlivens our pages, and in a marked degree shows the refinement, picturesque and substantial homes that adorn the city of Stockton and environs. *

The So-Called Horse-Diphtheria.

EDITORS PRESS:—I should be much obliged if some of the readers of the PACIFIC RURAL PRESS would send particulars of that disease of the mouth and throat of horses, which many thought to be diphtheria.

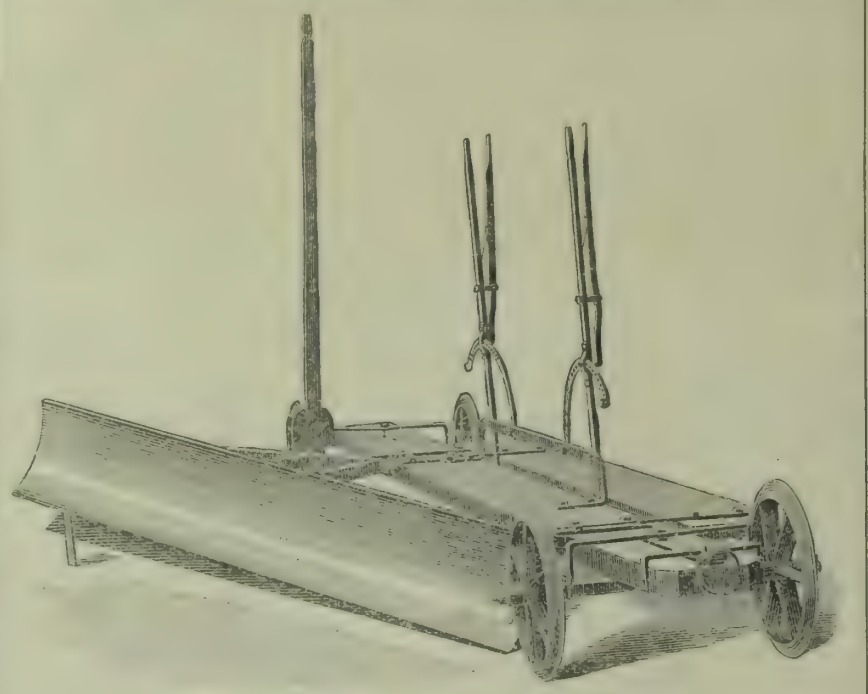
There were quite a number of cases at Sacramento. I have written there for information also; whether they will write to me direct or through RURAL, I do not know, and it is not material, so long as we obtain the desired information.

I am much inclined to think that I am "on the track" of the *actual cause*, and if so, I need hardly say that it will be a benefit to owners and prevent much suffering to the horses.

ROBERT J. DAWSON,
Veterinary Surgeon,
225 Geary St., S. F.

A Popular Grader and Scraper.

We give on this page an engraving of a scraper and grader which commends itself to those who desire an effective implement at a moderate cost, and one which requires only the services of the driver for its working. It is the invention of L. E. Ashley, of Stockton, and is offered to the public by Clark & Ashley, of the same place. The engraving will enable any one acquainted with such machinery to understand its plan of operation. It has been largely used in San Joaquin county and has won good opinions for efficiency and general availability, for the great amount of leveling which needs to be done in fitting fields for irrigation, for road-making, and the like. Full particulars can be learned by addressing the manufacturers at Stockton.



CLARK & ASHLEY'S GRADER AND SCRAPER.

QUARANTINING CATTLE.—By advice of the New Mexico Cattle Sanitary Commission, Gov. Ross has issued a cattle quarantine proclamation to take effect June 1st. The reason given is that pleuro-pneumonia is epidemic in New York, New Jersey, Illinois, Canada, Scotland and England. The introduction of cattle from any of these places, or coming through the Chicago and Kansas City stockyards, is prohibited, unless the cattle have not been within the States, counties, or stockyards named during six months preceding their arrival in New Mexico, and have not shown symptoms of disease. Cattle coming from the quarters named, if allowed in the Territory after inspection, must come by the way of Raton. Inspectors can require importers to show all places where the cattle have been within the previous six months.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
GEO. MCDOWELL—Ventura and Santa Barbara Cos.
J. L. DOYLE—Alameda Co.
W. J. FERRMAN—California and Nevada.
SILAS PRUDEN—Colusa Co.
WILLIAM POOL—Fresno Co.
M. S. PRIME—Alameda Co.
R. G. HUSTON—Butte, Montana.
E. P SMITH—Humboldt Co.
S. J. LITTLEFIELD—San Diego Co.
EDMUND WRIGHT—Shasta Co.

THE first peaches of the season were received on Saturday from Visalia, and sold at 75 cents per pound. The fruit was produced on the ranch of I. H. Thomas, and was in very good order.

DR. O. F. SHAW writes from Seattle, Wash. Terr.: "The RURAL PRESS is to me an ever-welcome friend."

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & CO.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MAY 17, 1887.

363,194.—LIFTING JACK—A. K. Bagwell, Plainburg, Cal.
363,198.—GOLD-WASHER—H. G. Blodgett, Harrisburg, Ogn.
363,060.—SAFETY SIGHT-FEED REFLECTOR—W. S. Getchell, Oakland, Cal.
363,168.—WHEELBARROW—J. Peterson, S. F.
363,020.—RAILWAY TIE—Luke Taylor, Battle creek, Ogn.
363,095.—BALING PRESS AND FEEDER—Thompson & Ishim, S. F.
363,264.—FURNACE—E. W. Tucker, Honolulu, H. I.
363,101.—DERRICK—J. B. Wallace, Walla Walla, W. T.
363,008.—HASP LOCK—John Shaw, Browns, W. T.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

A NOBLE DOG.—The death of the great St. Bernard dog, Merchant Prince, after two or three days' illness, is mentioned among the telegraphic items. Since he was imported last year by John N. Moore, of Melrose, Mass., he has taken over 20 first-class prizes, including the first in the Boston Kennel Show. Before he was brought to America his owner had been awarded 15 first-class prizes at various exhibitions in Europe. During the past year Mr. Moore is said to have been offered $10 000 for him, but refused to part with him. Merchant Prince was reckoned the largest and heaviest dog in the country, if not in the world, his weight being 220 pounds, and was a great favorite among the neighbors on account of his affectionate disposition and remarkable intelligence.

Enterprise Planing-Mill.

The advantage of location and development of this great valley has given the opportunity to establish extensive works of various industries in Stockton. Prominent among these is the firm of P. A. Buell & Co., manufacturers, builders and contractors. Their plant is a substantial brick building and covers nearly one block. They are supplied with all the latest improvements in machinery and facilities for kiln-drying. Their regular force of skilled mechanics and helpers ranges from 30 to 100 men. With ample capital, ripe experience and sagacious management, they have secured contracts and orders for millwork in every town from Stockton to San Diego. Mr. P. A. Buell, the active manager, has gained an enviable reputation as the leading builder and contractor in the San Joaquin valley. *

Lumber Merchants.

Messrs. Moore & Smith are the leading lumber merchants and manufacturers of the San Joaquin valley. Their immense mills are located on Puget sound, and their cargoes are shipped direct to Stockton. From this point their product is distributed the length and breadth of this great inland basin. *

THE first cherry plums of the season were received Monday from Briggs' orchard, Marysville. They were consigned to A. Lusk & Co., and sold for 25 cents per pound.

THE

PACIFIC RURAL PRESS.

The Leading Agricultural Home Newspaper and standard authority on all branches of California Agriculture.

It is the chief medium for the dissemination of information concerning fruit-growing in Calfornia.

It has the fullest and most accurate REPORTS OF HORTICULTURAL MEETINGS, and is the best record of the EXPERIENCE OF INDIVIDUAL FRUIT-GROWERS in all parts of the State.

Its market reports are prepared with care and the greatest reliability possible for the benefit of the producer.

THE PACIFIC RURAL PRESS has more circulation and influence in the Pacific States and Territories than all the other agricultural weeklies in the United States combined. Advertisers can reach nearly all the leading reading farmers through its columns.

A well-known horticulturist who was in attendance upon the meetings of fruit-growers, writes; "The greatest praise that could be bestowed on the RURAL PRESS at the late Fruit-Growers' Convention, and which shows, undoubtedly, the well deserved popularity of that paper, is the fact that almost all the members of that Convention were subscribers to the Press."

It is a Farm and Home Journal of the highest class, pure in tone and well informed on all matters of industrial interest. It is handsomely printed and illustrated. It is a 20-page weekly, and is furnished, postage paid, for $3 per year in advance. Single copies, 10 cents, prepaid.

What Others Say of the "Rural Press."

PROUD OF THE RURAL.—We feel proud of the RURAL PRESS. It is a paper that we are not ashamed to send to our friends in the East. Every farmer on the Pacific Coast should take it, and it is a valuable paper for anyone to read. We appreciate your efforts. Long may you live to bless our cause. *James Blood, Santa Barbara Co.*

THE RURAL BEST OF ALL.—I take from four to six papers but *if I could take but one*, I should unhesitatingly choose the PACIFIC RURAL PRESS.—*J. M. Asher, San Diego Co.*

INVALUABLE.—I congratulate you on the *general excellence* of the RURAL PRESS, and consider it simply invaluable to all residents of the Pacific Coast.—*Frederick C. Sheldon, M. D., Los Angeles Co.*

Established 1870. Yearly subscription $3. [Thirteen and one-half months are allowed new subscribers and old subscribers paying $3, strictly in advance.]

Send for samples. Address,

DEWEY & CO., Publishers,
No. 220 Market Street, San Francisco

Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

W. H. Worth's Pat. Grape Stemmer

And CRUSHER



After experimenting for the past three years, I have perfected the

Best Stemmer

In the market. Those wishing Grape Machinery, please write for circular. See advertisement, in next week's issue, of my Patent Wine Press.

W. H. WORTH, Petaluma, Sonoma Co., Cal.

THE AMERICAN MAGAZINE.

BEAUTIFULLY ILLUSTRATED.

This Magazine portrays American thought and life from ocean to ocean, is filled with pure high-class literature, and can be safely welcomed in any family circle.

PRICE 25c. OR $3 A YEAR BY MAIL.

Sample Copy of current number mailed upon receipt of 25 cts.; back numbers, 15 cts.

Premium List with either.

Address:

R. T. BUSH & SON, Publishers,
130 & 132 Pearl St., N. Y.

GET UP CLUBS.

SAN FRANCISCO: Junction Market, Pine and Davis Streets.

BAKER & HAMILTON.

SACRAMENTO: Nos. 9, 11, 13, and 15 J Street.

MANUFACTORY: Benicia Agricultural Works, Benicia, Cal. EASTERN OFFICE: 88 Wall Street, New York.

IMPORTERS, MANUFACTURERS, AND DEALERS IN

HARDWARE and AGRICULTURAL IMPLEMENTS.

BRONSON PITTS THRASHING MACHINES



The Bronson Improvement on the Buffalo Pitts Thrashers consists of a set of long, agitating fingers extending from beneath the cylinder to the grain belt. These fingers have a longitudinal, as well as rising and falling motion. As the grain and straw are discharged from the cylinder, the straw is caught on the fingers and shaken out loose, and at the same time carried forward (by the longitudinal motion, assisted by the first Beater) on to the top of grain belt. At the same time the grain is shot through the loose straw to a sheet-iron pan (below the fingers), which, having the same longitudinal motion as the fingers, discharges the grain into the grain-belt cells before they have been covered by the straw.

The longitudinal motions of the Fingers and the End-Shake Shoe, operate to counteract each other, both being driven from the same crank shaft, but in opposite directions.

SPECIAL IMPROVEMENTS.—Although for the past two or three years we have felt each year that our Thrashers had arrived at a degree of perfection that left no room for improvement, yet each succeeding year we have been able to do "a little BETTER," and for this year we have an unusually brilliant list.

The Bronson Separator, with Recleaner incorporated in the Machine and Fan in Straw Rake. (Fan in Straw Rake is not shown in above cut The Self-Feeder shown is not included in prices named below.)

32-inch Cylinder with Sieves 44 inches wide, having extra enlarged separating capacity, with Recleaner, and Fan in Straw Rake.....$1100 00

36-inch Cylinder, with Sieves 52 inches wide, having extra enlarged separating capacity, with Recleaner, and Fan in Straw Rake..... 1250 00

40-inch Cylinder with Sieves 56 inches wide, having extra enlarged separating capacity, with Recleaner, and Fan in Straw Rake..... 1300 00

The above Separators have Iron Axle Wagons, 5-inch Tires, Chaff Carriers, 12 Double Bar Cylinder, Cast Steel Cylinder Shafts, Steel-Laid Teeth, Extra Large Cleaning Capacity, entire Machinery highly finished.

Large Band Jacks.....$40 00

H. L. FARRINGTON. G. C. HYATT. H. S. FARRINGTON.

STOCKTON IRON WORKS,

841, 845 and 847 California Street,

STOCKTON.

Farrington, Hyatt & Co.,

Manufacturers of

ENGINES, MACHINERY, IRON

—AND—

BRASS CASTINGS.

GANDY BELTING CO.'S

ENDLESS

THRASHER BELTS

The Best in the Market

FOR

AGRICULTURAL MACHINERY.

Neville & Co.,

31 and 33 CALIFORNIA ST., SAN FRANCISCO, CAL.,

SOLE AGENTS FOR PACIFIC COAST.

[In corresponding, mention "PACIFIC RURAL PRESS"]

THOS. DAY & CO.,

222 SUTTER ST., above Kearny, SAN FRANCISCO.

BRASS GOODS

Of Every Description.

Gas Fixtures, Oil Fixtures,

CANDLE STICKS, LAMPS,

IRON PIPE, Plumbers' Supplies.

Gas Machines.

AGENTS United Brass Co.

No Interest in any other house.

AGENTS American Meter Co.



Mantels, Grates, and TILE.

Andirons, Etc., Etc.

Special Designs for Church Work, Offices, Etc.

NICKEL PLATING.

An Agent on his Travels.

EDITORS PRESS:—Many of your readers know not what an agent's life is like. In winter, traveling over mountain-roads, chilled to the marrow, we drive up to a house or shake-down or some dilapidated structure to find either no accommodations or no one living there. So, after feeding our horses and ourselves—if lucky enough to have anything to do so with—we crawl rather than walk to some sheltered corner to shiver through the night. We probably go through more hardships than any one in any other class, craft or trade, call it what you will. We are liable any day to get rained on during the winter.

But in summer, what a contrast! Who gets the fine views? Who sees more rugged nature than we who are traveling all the time—over mountains, through glens, across primitive bridges, fording small streams through heavy woods which at the present season look splendidly—full of wild flowers, ferns and mosses, the leaves all colors, from the laurels very dark to the maples very light green; while the creeping vines of ivy, blackberry and poison oak, from all shades of green to crimson, show in pretty contrast to the dark-brown, seared trunk of the gigantic redwood, which impresses and awes the beholder. Every breeze which blows through the tree-tops makes a peculiar sighing, stirs the heavy underbrush, wafts the dry leaves to and fro, and is laden with the aroma of the laurel, myrtle, honeysuckle and kindred flowers. Springs, gurgling through the mosses which line their banks, surging over rocks, around roots and stumps, cold as ice and clear as crystal. Every little while, lying peacefully in a hollow, or on a gentle slope, nestles a farmhouse, surrounded by fruit trees and flowers, and dotting the grass, the heads of the mustard, pansy, buttercups and others too numerous to mention; while in the distance are seen cows and horses which give life and charm to the view and make us think how puny are the attempts of painters to depict anything as we see it ourselves. It all needs to be seen to be appreciated.

E. P. S.

Eureka.

DR. C. GRATTAN has planted this season 70 acres in fruit trees and vines. In the center of this tract of land, at the highest point, is situated his noted artesian well. There is a great volume of water flowing into an artificial lake that is large enough to take a boat-ride on. This water has gained a local celebrity as a pure medicinal water that has proved a curative agent in kidney complaints. From an analysis its component parts are nearly the same as the celebrated Bethesda water.

M. P. Henderson.

M. P. Henderson & Son are the proprietors of an extensive carriage manufactory, which was established in 1869 with a working force of three men, in a small shop on Weber avenue, which they soon outgrew and removed to the corner of Main and American streets, where they erected their present substantial factories, in which is to be found all the latest improved machinery which can be used in the manufacture of carriages and wagons, to reduce cost and yet improve quality, which is necessary in this country to the consumer.

All kinds of vehicles are made by them, from the heaviest lumber or freight wagons and stage coaches to the lightest trotting sulkies and buggies, or from the improved farm wagons to the elegant carriages and phaetons; for all of which they have taken premiums at all exhibitions where shown, over all competitors.

The lumber, wheels, and all materials and stock used in this establishment are carried for two years ahead to insure everything being thoroughly seasoned and able to stand any climate.

They also supply the trade or any person with wheels and all stock and materials necessary to complete a vehicle. Being their own importers in all lines and buying from first hands, they offer an advantage over others in furnishing any part or the whole of the woodwork all ready for ironing.

All work turned out by the firm is manufactured under the personal supervision of the members of the firm, being models of taste and elegance, noted for thorough construction and durability. Their genius is employed constantly on improvements, among other items having produced several years ago a patented buckboard, known as Henderson's, which has proved a wonderful success and filled a long-felt want of the farmers, miners, liverymen and travelers of all kinds.

Their work finds its way to all parts of the Pacific Coast and islands, and is much recommended by its staying and lasting qualities.



CARRIAGE REPOSITORY OF M. P. HENDERSON, STOCKTON, CAL.

STATEMENT OF THE CONDITION

——OF THE——

Stockton Savings and Loan Society

AT THE CLOSE OF BUSINESS APRIL 30, 1887.

RESOURCES.

Real Estate	$ 136 443.89	
Loans and Overdrafts	1,552,784.23	
Money on Hand	245,153.61	
Due from other Banks	403.985.44	
Expenses, Taxes, etc	5,030.32	
Collection account	3,360.91	
Interest accrued	40,686.22	
Total Resources		$2,387,444.62

LIABILITIES.

Capital and Reserve	$ 779,749.01	
Due Depositors	1,605,824.93	
Exchange account	425 82	
Due otner Banks	1,444.86	
Total Liabilities		$2,387,444.62

This Bank was organized in 1867, since which time it has met with the greatest success, until it now stands at the head of the list of Commercial or Savings Banks outside of San Francisco in Capital and Resources.

We pay interest on Time Deposits at a specified rate, and make Collections in all parts of the United States and do a

GENERAL BANKING BUSINESS.

L. U. SHIPPEE, President.

FRED. M. WEST, Cashier.

STOCKTON COMBINED HARVESTER & AG'L WORKS

Stockton, Cal.

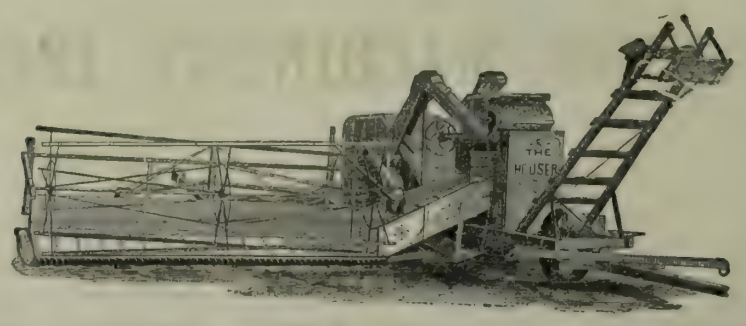
The only Manufactory that makes a Specialty of Building

COMBINED HARVESTERS.

PULL and PUSH, BELT and GEARED.

Houser, Minges, Shippee, and Powell

THE LEADING HARVESTERS OF THE PACIFIC COAST.



THE HOUSER BELT IS OUR STANDARD.

THE BEST KNOWN AND MOST POPULAR.

800 in Field Use and No Failures.

NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS.

ORRIN S. HENDERSON. M. P. HENDERSON.

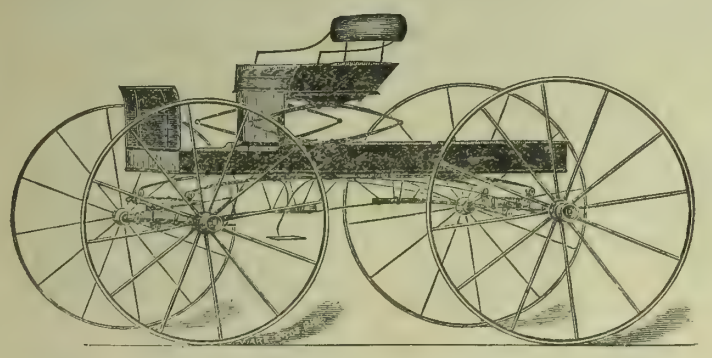
M. P. HENDERSON & SON,

MANUFACTURERS AND DEALERS IN

FINEST CARRIAGE WORK.

All Varieties, Grades and Styles. Anything in the Line

Correspondence Invited.



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REAL ESTATE, STOCK AND MONEY BROKERS.

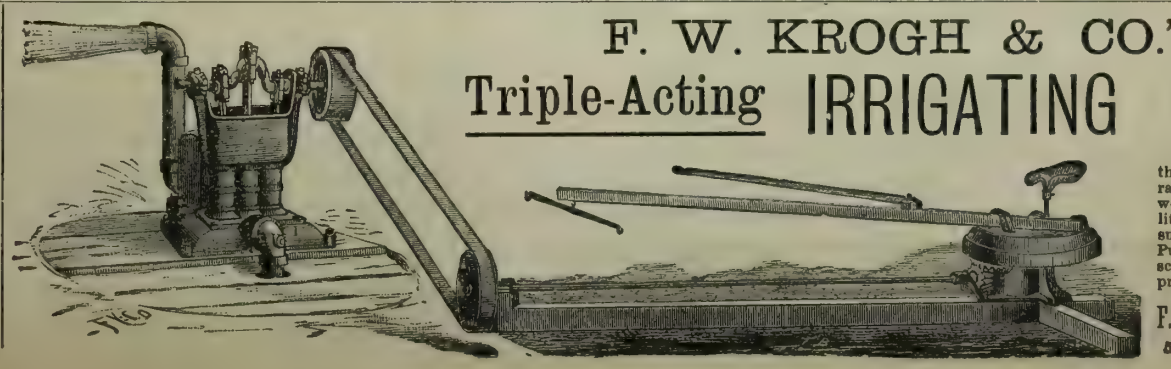
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F. W. KROGH & CO.'S
Triple-Acting IRRIGATING PUMP.

There is no Pump i the market that will raise as much water, work as easy, with so little power, and at so small a cost, as this Pump. Send for descriptive Catalogue and prices to

F. W. KROGH & CO.,
51 Beale St., S. F.

The Stockton Milling Co.

The Stockton Milling Co., proprietors of the Crown Flouring Mills, located at Stockton, Cal., is an association of capitalists, who, in 1882, realizing the advantages possessed by Stockton for manufacturing flour, organized a company with a capital of $300,000 and commenced the erection of what is known as the Crown Mills. This is an expensive and substantial structure of brick, located immediately on the water front, and has been in operation seven years. Its capacity is 1400 barrels of flour daily, and runs night and day, and furnishes employment to more than 65 men. The mill is equipped with the latest improved roller machinery for the manufacture of flour, and its product stands at the head and is in good demand both with home and foreign trade.

As the wheat produced in the San Joaquin valley is as good as is produced in any other grain district in the world, and as Stockton is the grain market for an extensive region of country, this mill has superior facilities for the selection of choice wheat. The general manager of this firm is Mr. J. M. Welsh, who is acknowledged authority on milling business generally.

The office of the company in San Francisco is located at No. 319 California street.

Pacific Asylum.

The Pacific Asylum is pleasantly situated in the suburbs of Stockton about half a mile from the courthouse. It is a substantial brick structure in the center of a tract of 40 acres set with vines and fruit trees, and laid out with graveled walks and beautiful shade trees. Dr. Asa Clark, the proprietor, kept the insane of the State of Nevada for several years under contract until they were removed to the new State Asylum at Reno. On the 10th of August, 1882, the Pacific Asylum was opened as a private institution for the care and treatment of mental and nervous diseases. It must be apparent to any one familiar with the crowded condition of our State Asylums, that delicate and refined people would be better cared for and have a better prospect of recovery in a well-regulated private establishment. Dr. Clark has had large experience in the treatment of the insane, and has a corps of able assistants who give personal attention to his patients, and as far as possible make it a home.

It is a matter of professional pride rather than of money-making with the proprietor, and the leading physicians of California have given a very flattering indorsement of this management and treatment of the afflicted and demented.

Irrigating Pumps.

The tradewinds that prevail in the summer season have caused the windmill to come into general use as a means of pumping water for stock and for garden irrigation. During the last ten years Mr. Fred. A. Ruhl, of Stockton, has been experimenting and inventing valves for deep-well and shallow-well pumps. He has been granted letters patent on several that have been introduced and become very popular. There is a large demand for the Ruhl valves from Oregon to Mexico, and it has become one of the manufacturing industries of Stockton. We will give an illustration and description of these valves in the RURAL PRESS in the near future, as a subject of much interest to our readers. *

MESSRS. L. M. CUTTING & SON, real estate and business agents of Stockton, have in charge a number of large landed estates, among which is that of the late Captain Webber, who laid out the city of Stockton. During the last year several tracts have been divided into small parcels and put on the market by this firm. Parties seeking investments in this locality will find them in position to give reliable information in their line of business. *

Commission Merchant.

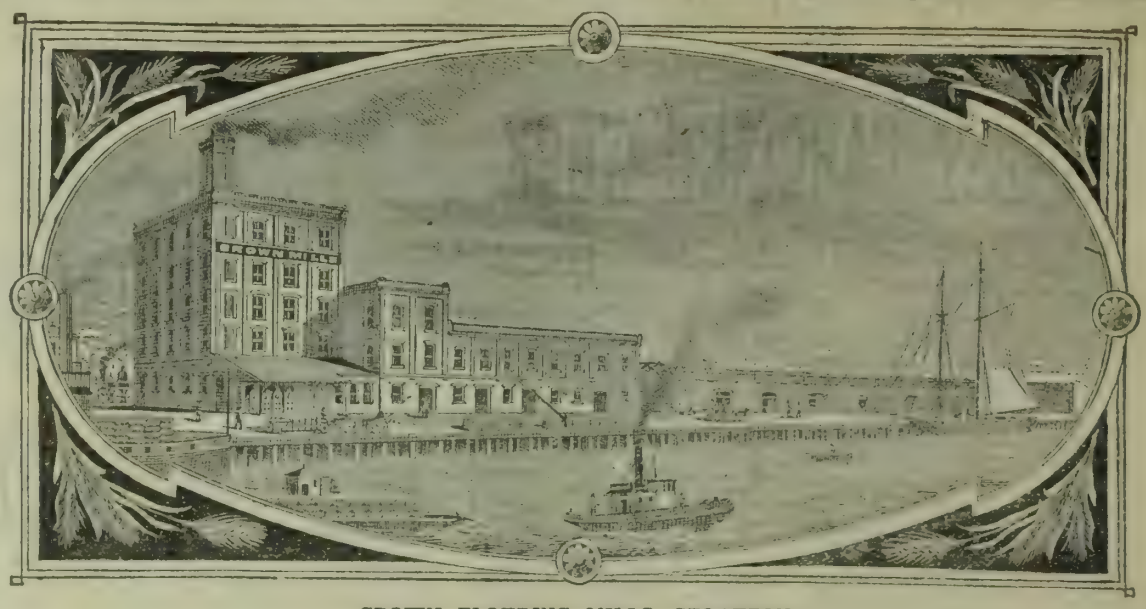
Mr. C. V. Thompson has for several years been the leading commission merchant and dealer in fruit and vegetables. He is located near the levee, and has the advantage of water and railroad communication. It is no uncommon practice for his house to receive cargo consignments and receive and distribute to his numerous patrons in carload lots. He has unusual facilities to handle consignments advantageously to the producer and consumer. *

The Stockton Iron Works.

Messrs. Farmington, Hyatt & Co., the proprietors of this establishment, have a State reputation as skilled workmen in all classes of machinery. A recent number of the PACIFIC RURAL PRESS contained a descriptive article of a dredger built by them, which is now in use on Roberts' island. This firm occupies a leading position as manufacturers of brass goods, builders of heavy machinery for steamboats and agricultural machines. *

Stockton & S. F. River Express Co.

During the last nine years the Stockton & San Francisco River Express Co. have held a prominent position as common carriers and commission merchants. At their inception they confined themselves to the river trade, but now they ship to all parts of the world. They have wagons running to all parts of the city, and ship goods at less than one-half the rates charged by railroad. The proprietors are reliable and trustworthy gentlemen. *



CROWN FLOURING MILLS, STOCKTON.



PACIFIC ASYLUM, STOCKTON. *Photo. by Batchelder.*

JAS. M. McCARTY,

REAL ESTATE AND LOAN BROKER,

NOTARY PUBLIC,

Insurance and General Agent,

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Has unusual facilities for the purchase and sale of LANDS, in large or small tracts, all over the State of California, but particularly in the GREAT SAN JOAQUIN AND SACRAMENTO VALLEYS. Has now for sale a great many farms adapted to the production of wheat, fruit, vines, olives and oranges, and a few dairy farms. Pays special attention to the wants of Eastern capitalists desiring investments in California. Loans Eastern money on mortgages on lands in California, realizing six per cent net to the loaner. References furnished.

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Air-Purifier and Preserving-Room System.

ADAPTABLE to keep or transport all perishable articles in perfect condition. After 25 years of studying the various means of preservation for perishable articles, I have the honor to announce to the public that, having fully succeeded and completed my preserving process, I am now ready to build preserving rooms, either on a large or small scale. For further particulars address

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Postoffice Box P.

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PUMPS FOR IRRIGATION AND RECLAMATION
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Complete Pumping outfits—all sizes—for every purpose. The latest, best and cheapest. If you need any thing in this line, write to

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DYE WORKS,
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All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.
CHAS. J. HOLMES, Manager.

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R. E. WILHOIT & SONS,

Searchers of Records, Conveyancers,

REAL ESTATE AND LOAN AGENTS,

232 Main Street, opposite Court House,

STOCKTON, CAL.

FRED A. RUHL,

—MANUFACTURER OF—

Ruhl's Patent Dip and Shallow Well

PUMPS!

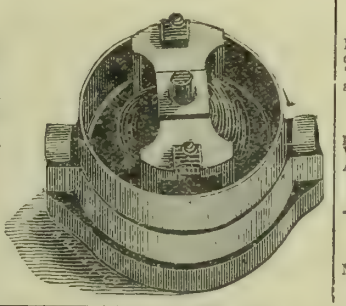


Dip Well Pumps 3, 4, 5, 6, 7 inch diameter. Shallow Well or Suction Pumps 3, 4, 5, 6, 7, 8, 10 inch diameter.

For these Pumps Galvanized Sheet Iron or Wrought Iron Gas Pipe can be used.

Pump Manufacturers

Can obtain the Valves, Galvanized Flanges and Brass Cylinders by ordering from me or from HOLBROOK, MERRILL & STETSON, San Francisco.

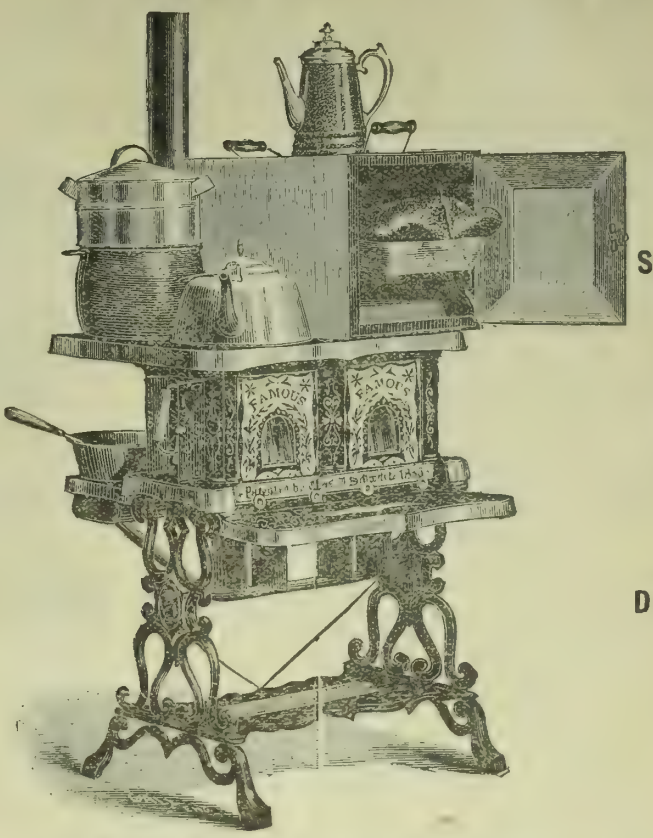


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WHAT YOU WANT!

THE "FAMOUS" OIL RANGE.

Efficient! Economical. Reliable!



NO SMOKE! NO SMELL! NO DANGER!

No. 5—Showing Furniture in Position and Stove in Operation.

The only Oil Range or Stove which can be connected with Chimney Flue, if desired. Perfect Combustion! Perfect Operation! Perfect Satisfaction! Eight Irons may be heated without interfering with other work. It will bake as well as any cook stove or range—oven 19½x13x12 inches. Oil tank is self-ventilating. The "FAMOUS" Oil Range is well qualified to be used as a heater. It is admirably adapted for sick rooms or sleeping apartments, because, when connected with the chimney, IT WILL ACT AS A VENTILATOR.

FOR SALE BY ALL DEALERS.

SPECIAL NOTICE—**Agents Wanted!** If you cannot find our goods at your dealer's, write for Catalogue and prices. Descriptive Catalogue mailed free (postpaid) upon application. HEADQUARTERS FOR ALL KINDS OF WINDMILLS. Hand, Spray, Garden, Wine **PUMPS**, Iron, Brass, Copper, Galvanized, Single-Acting, Double-Acting **PUMPS**, Rams, Footvalves, Cylinders, etc., etc.

ANDERSON & TALLON, Successors to Wm. S. Ray & Co.

12 and 14 MARKET ST., SAN FRANCISCO.

Manufacturers, Importers and Jobbers of Pumps, Windmills, Stoves, Ranges, Metals, Sheet Iron, Stamped Ware, Tinware, Lanterns, Hose, Pipe, Fittings, etc., etc. Correspondence solicited.

WORTHINGTON HYDRAULIC WORKS,

NEW YORK CITY.

BRANCH HOUSES: BOSTON, PHILADELPHIA, CHICAGO, ST. LOUIS, SAN FRANCISCO.

Our Pumping Engines Supply over 50 per cent of all Water Pumped in America for Water Works Purposes.

Estimates Given and Contracts Taken to Supply Water Works Complete.

We have supplied Pumping Machinery to the following named Cities and Towns on this Coast: Alameda, Biggs, Cloverdale, Colusa, Escondido, Fresno, Los Angeles, Marysville, Oceanside, Portland, Oregon, Redding, San Francisco, South San Francisco, San Bernardino, San Diego, Stockton, and Willows.

With our "High Duty Attachment" we have exceeded 118,000,000 duty with a five million gallon plant.

WE HAVE PUMPS OF VARIOUS CAPACITIES FOR ALL PURPOSES. CHEAPEST IN THE MARKET ACCORDING TO CAPACITY.

Below are some of the places at which Worthington Pumping Engines are in use for water works purposes, and their contract pumping capacity per day of 24 hours, stated in MILLIONS of gallons:

Greenwood Cemetery.... ½
Mt. Auburn, Mass ..... ½
Charlestown " 5
Wilmington, Del ..... ½
Annapolis, Md ..... ½
Charlestown, Mass..... 5
Burlington, Vt..... ¾
" " ..... ¾
Prospect Park, L. I..... 1
Norristown, Pa..... 1
Newark, N. J..... 5
Cambridge, Mass..... 5
Newark, N. J..... 5
Salem, Mass..... 5
Phila., B lmont Station,. 5
Hudson River Hospital.. 1
Portland, Oregon..... 1
Phila, Belmont Station. 5
Philadelphia.....11
Charlestown, Mass..... 8
Wilmington, Del..... 5
Philadelphia 2
Providence, R. I..... 5
Rahway, N. J..... 3
Bowling Green, Ky..... 1
Zanesville, Ohio..... 2
Poughkeepsie, N. Y..... 3
Salem, Mass..... 5
Phila., Belmont Station. 8
Jersey City, N. J.....16
Conshohocken, Pa..... 1
Phœnixville, Pa..... 1½
New Bedford, Mass..... 3
Waltham, Mass..... 1½
Woburn Mass..... 2
Newark, N. J..... 3
Cambridge, Mass..... 5
Baltimore, Md.....13

Phœnix Iron Works..... 2½
Toledo, Ohio.....10
Toronto, Canada..... 5
Montgomery, Ala..... 1
Buffalo, N. Y 10
Newark, N. J..... 3
Zanesville, Ohio..... 3
Fall River, Mass..... 5
Bristol, Pa..... 1
Montreal, Canada.....11
Brookline, Mass..... 2
Natick, Mass..... 1½
College Point, L. I..... 2½
avannah, Ga..... 3
Danville, Va..... 1
Staunton, Va..... 1½
Bloomington, Ill..... 1
Racine, Wis..... 1
Michigan City, Ind..... 1½
Yorkville, Canada..... 1½
Media, Pa. ..... ¾
Toronto Ont..... 10
Buffalo, N. Y.....15
Jamaica Pond, Mass..... 2½
Centen'l Water Supply.. 7
Sandusky, Ohio.... . 5
Lowell, Mass..... 5
Cleveland, Ohio.....10
Springfield, Ill..... 3
Danvers, Mass..... 2
Newton, Mass..... 6
Bordentown, N. J..... 1½
Portland, Oregon..... 3
Baltimore, Md..... 3
Syracuse, N Y.....10
Mt. Holly, N. J..... ¾
Pittston, Pa..... 2
Kalamazoo, Mich..... 2

Bridgeton, N J..... 1
Rochelle, Ill..... ¾
Willard Asylum, N. Y... 1½
Paterson, N. J..... 3
Boston, Mass..... 3
Burlington, N. J..... ½
DeKalb, Ill..... ½
Peru, Ind..... 2½
Norwalk, Ohio..... 2½
Jacksonville, Ill..... 2
Lancaster, Pa..... 3
Haverhill, Mass..... 1½
Jersey City, N. J..... 3
Woburn, Mass..... 2
Houston, Texas..... 3
New York, N Y.....15
Edgar Thomson Steel Co. 7
Cambria Iron Works.... 3½
Plymouth, Mass..... 1½
Jacksonville, Fla..... 3
Youngstown, Ohio..... 3
Brookline, Mass..... 1
Pennsylvania Steel Co... 6
Alameda, Cal..... 2
Norfolk, Va..... 6
Union Stock Yard, Ill... 2
Tewksbury, Mass..... ½
New Carlisle, Ind..... ½
Macon, Ga... 1
Alton, Ill..... 1½
Brantford Canada..... ¾
Nantucket, Mass..... 1½
Rochelle, Ill..... ¾
Jamaica Pond, Mass ... ¾
Calumet & Hecla..... 3½
Norfolk, Va..... 2
Wheeling, W. Va..... 3
Edgar Thomson Steel Co. 3½

Peoria, Ill..... 4
St. Joseph, Mo..... 4
East Boston..... ¾
Canton, Ohio..... 2
Akron, Ohio..... 2½
Waltham, Mass..... 1½
Cleveland, Ohio.....10
Newark, N. J..... 5
Yonkers, N. Y..... 3½
Col. Coal & Iron Co..... 1½
Philadelphia, Pa.....10
Danvers, Mass..... 2
Albany and Rensselaer Iron and Steel Co..... 3
Lancaster, Ohio..... 1½
Danville, Va..... 2
Alton, Ill..... 1½
Buffalo, N. Y.....15
Haverhill, Mass..... 1½
City of Boston Sewerage, 50
Auburn Me..... ¾
Wilmington, N. C..... 2
Wellsville, Ohio..... 1½
St. Charles, Mo..... 1½
Greenwood Cemetery.. ½
Lowell, Mass..... ¾
Somerville, N. J..... ½
McKeesport, Pa..... 3
Portland, Oregon..... ½
Richmond, Va..... 6
Chilicothe, Ohio..... 1½
Keokuk, Iowa..... 1½
Tombstone, Arizona..... ½
St. Louis, Mo..... ½
Litchfield, Ill..... ½
Otis Iron & Steel Co..... ¾
Edgar Thomson Steel Co.14
Standard Oil Co., Ohio..10

Peabody, Mass..... 5
Savannah, Ga..... 5
Hackensack, N. J..... 6
Long Branch, N J..... 2½
Cambria Iron Works.... 5
St. Joseph, Mo..... 3
Mt. Vernon, Ohio..... 2
New Haven, Conn..... 6
Burden Iron Works..... 3½
Winona, Minn..... 4½
Atlantic City, N. J..... 3
Pottstown, Pa..... 1½
Springfield, Ill..... 4
Lowell, Mass..... ¾
Cambridge, Mass..... 1
Hamilton, Canada..... 1½
Ishpeming, Mich..... ¾
Gunnison, Col..... 1½
Locust Mountain, Pa.... 4½
West Chester, Pa..... 1
Hot Springs, Ark..... 1
Pernambuco, Brazil..... 1½
Phœnixville, Pa..... 1½
New Brunswick, N. J.... 3
New York, N. Y..... 6
Standard Oil Co, N. J..10
Bradford, Pa ..... ¾
Olean, N. Y..... 1½
Portland, Oregon.....10
Phœnixville, Pa..... ½
Hackensack, N. J..... 4
Portsmouth, Va..... 6
Stratford, Ont..... 2½
Yonkers, N. Y..... 1½
Milton, Pa..... 1
Winfield, Kansas..... 1
Alliance, Ohio..... 2
Cambria Iron Works.... 5

Philadelphia, Pa.....37½
Elizabeth, N. J..... 2½
Gale-burg, Ill..... 3
Beaver Falls, Pa..... 3½
Lancaster, Pa..... 6
Fergus Falls, Minn..... ¾
Des Moines, Iowa..... 6
New Bethlehem, Pa..... 1
Nashville, Tenn.....10
Olean, N. Y..... 1
Pittsburgh Pa..... 4
Bloomsburgh, Pa..... 1
Chamberlain, Dakota... ½
Cleburn, Texas..... 1½
Terrell, Texas..... 1
Georgetown, Texas..... ¾
Cleveland, Ohio.....10
Corsicana, Texas..... 1½
Amesbury, Mass..... 2
Macon, Georgia..... ¾
Galveston, Texas..... 2
Sandwich Ill..... 1
Brookville, Pa..... 1
Waterbury, Conn..... 1
Wilkesbarre, Pa..... 1
Newburgh, N. Y..... 1½
Long Island City, N. Y.. 2
Temple, Texas..... ¾
Canandaigua, N. Y..... 1½
Nashua, N. H..... 3
Brooklyn, N. Y..... 2
Sayre, Pa..... 1
Columbia, S C..... 1
Princeton, N. J..... ½
Belton, Texas..... 1
Lampasas, Texas..... 1
Cortland, N. Y..... 1½
Bridgeport, Conn..... 4

Woonsocket, R I..... 2
Irvington, N. Y..... ½
Atlantic City, N. J..... 1½
Augusta, Ga..... 3
Bethlehem Iron Co., Pa. 3
Jersey Shore, Pa..... ¾
Amesbury, Mass..... 2
Wahpeton, Dak..... 1
Sioux Falls, Dak ..... ¾
South Abington, Mass... 1
Newark, N. J..... 8
Crystal Water Co..... 1½
Braddock, Pa..... 5
Passaic, N. J..... 2
Trenton, N. J..... 6
West Haven, Conn..... ½
New Bedford, Mass..... 5
Manheim, Pa..... ½
Flatbush, L. I..... 2½
Red Bank, N. J 1½
Bethlehem, Pa..... ¾
Houlton, Me..... 1
Corvallis, Or..... ½
Muncie, Ind..... 1½
Hegewisch, Ill..... 1½
Lake View, Ill..... 5
Brooklyn, N. Y..... 3
Mamaroneck, N. Y..... 1-5
Jacksonville, Fla..... 2½
Pierre, Dak..... ¾
Cambria Iron Works.... 5
Belleville, Ill..... 2½
San Antonio, Texas..... 3
Ft Cœur d'Alene, Idaho ¾
Adams, N. Y..... 1
Boston, Mass..... 15
Gravesend, N. Y..... 4
Bethlehem, Pa..... ¾

Lansing, Mich..... 3
South San Francisco.... 1¼
Marshall, Mo..... 2
Orange, N. J 1½
Auburn, Me..... 1
Moberly, Mo..... ¾
Fulton, N. Y..... 1½
Homer, N. Y..... 1
Montreal, Canada... ..12
Paola, Kan..... 2
Tuxede Park, N. Y..... ½
Dallas, Texas 4½
Shelbyville, Ill..... 2
Monongahela, Pa..... 4½
Waterford, N. Y 1½
Astrakhan, Russia..... 3½
Norway, Me..... ¾
Guadalajara, Mex..... 1½
Crystal Plate Glass Co... 2½
Long Branch, N. J..... 3
San Antonio, Texas..... 1½
London, Ont..... 2
Lewiston, Me..... 6
New Brighton, Pa..... ¾
Cooperstown, N. Y..... 1
Somerville, N. J..... ½
Winston, N. C..... ½
New Brunswick, N. J... 2½
Fergus Falls, Minn..... 2½
San Marcos, Texas..... ½
Sioux Falls, Dak..... ¾
San Antonio, Texas..... 3
Putnam, Conn..... 1

To January 15, 1886, total contract pumping capacity, over one billion of gallons in 24 hours. A pamphlet fully descriptive of this department of the business furnished on application

A. L. FISH, Sales Agent for the Pacific Coast,

Nos. 30 and 32 FIRST STREET, SAN FRANCISCO, CAL.

The H. C. Shaw Plow Works.

One of the old landmarks of the city of Stockton is shown in the above cut. The history of this house is one closely connected with furnishing improved agricultural implements and machinery in all portions of the Pacific Coast, Arizona, and a part of Mexico. We herewith give an extract from the PACIFIC RURAL PRESS published Oct. 20, 1883:

The pioneers who were first impressed with the immense resources of California as a grain-growing State fully realized that, with high-priced labor and a long dry season, agricultural implements must be made that would meet the necessities of the time and that were adapted to a new system of farming. The city of Stockton, situated at the head of navigation and in the heart of the great San Joaquin valley, naturally became a distributing point for agricultural supplies and implements. The enterprising merchants and mechanics anticipated the wants of the farmer, and by their advice and suggestions undertook the task of making a plow that would cultivate the virgin soil thoroughly, expeditiously and economically. Experiments, trials and disappointments followed in turn only to be repeated each year. In 1861 and 1862 the old walking cast plow, fastened in two or three gangs, was followed by the Knox patent sulky cultivator, or, as it was then termed, "Yankee Fiddle," which did a good deal of "scratching" and but little plowing. In 1864, Mr. Robert Baxter, of Stockton, was the first, we believe, to use the reversible mold-board in gang plows, which had been used in Virginia 35 years ago in single plows. Mr. H. C. Shaw, one of the oldest dealers in agricultural implements of Stockton, seeing the necessities of the farmer in cultivating the vast fields of the San Joaquin valley having various kinds of soil, undertook to invent a gang plow that would suit the wants of this new system of cultivation. His policy from the first was to follow the suggestions and advice of practical and intelligent farmers in making and improving his Stockton gang plow. This system has been followed for 20 years, and during that time some new and distinct improvement has been made each year, and the most of them by the advice and suggestions of large grain-raisers, who personally supervise the plowing and seeding of their own lands. The "H. C. Shaw" Stockton gang plow is made with three, four or five 10-inch plows, or six 8-inch plows, to which a seeder can be attached in front as a drill or behind as a seeder, with the harrow following. Thus equipped, one man with eight horses can plow, seed and harrow eight acres a day. In 1872, in a field test, the H. C. Shaw Stockton gang plow took the first premium, and since that time in this class has repeated its victory in every trial down to 1883. At the late San Joaquin District Fair it received a special premium. Their long use and the growing demand has made them a noted and familiar gang plow all over the Pacific Coast. Mr. J. W. Jones, one of the largest grain-raisers in this State, has experimented with all kinds, and the result of his experience is that in adaptability to the different soils, whether adobe, loam or sandy soil, economy and thorough cultivation, the four-gang 10-inch Stockton plow, with seeders attached, is the best, and of which he has 100 in use on his different ranches.



THE H. C. SHAW PLOW WORKS, STOCKTON, CAL.

MESSRS. REID & NOBLE, leading real-estate agents of Stockton, have on sale a number of large tracts of land in San Joaquin valley and in the vicinity of the city of Stockton that have been subdivided into 10 and 20-acre lots. As searchers of records and reliable agents, they occupy a leading position.

What is Buhach?

Buhach is a word adopted as the trademark and name of the California insect powder, which is made from the blossoms of the plant *Pyrethrum Cinerariæ Folium* by the Buhach Producing and Manufacturing Company, of Stockton, California. This remarkable plant is a native of Persia, Asia, but was introduced into California by the above-named company from Dalmatia, Europe, where it has been profitably cultivated for many years. It is now extensively cultivated upon the plantations of the company, located near Atwater, Merced county, California, where the conditions of soil and climate have been found particularly favorable for the production of a plant rich in the essential oil, which makes it valuable for the destruction of insect life. Several experiments have been made to test the adaptability of the plant to the soil and climate of different localities in the State, and by this means it has been ascertained that a dry and warm climate and a light and porous soil are necessary for the production of the plant, and that the powder manufactured from it, when thus grown, is far more effectual as an insect destroyer than that made from the plant raised in a moist climate or upon a different kind of soil.

The plant is a perennial and will put forth stalks and flowers from the root for five or six years, when it begins to decay, and is removed and younger plants put in its place. It requires especial attention and the ground must be thoroughly cultivated in order to make the plant grow its full crop of blossoms, which is the only portion of the plant that is now used. When the blossoms mature they are carefully picked by hand, which is a slow and expensive process, and during the harvest season as high as 250 hands are sometimes employed upon the plantation of the company. After the flowers are gathered they have to be thoroughly dried, and are then ground to powder by the use of burr stones, the process being similar to that once so generally employed in the manufacture of flour from wheat. The powder thus manufactured is the product to which the name of Buhach is given, and which, wherever it has been introduced and its qualities made known, is regarded as a necessity in every house. Notwithstanding that it is remarkably destructive to insect life, it is absolutely harmless to man or beast, which makes its use possible where other preparations cannot be introduced. By its intelligent use every house can be protected from the many annoyances that are otherwise suffered from the prevalence of insect life, and the general comfort of the residents is correspondingly increased. The introduction of the valuable plant from which Buhach is manufactured has been an important addition to the products of California, and, aside from the fact that an important industry has been established, and the field of labor enlarged, an article is produced which is particularly demanded by the people of the State. The business of the Buhach Producing and Manufacturing Company is constantly increasing, and their facilities for supplying the growing demand for their product are being constantly enlarged.

H. H. H. Horse Medicine.

One of the chief manufacturing industries of Stockton is carried on by the well-known and enterprising firm of H. H. Moore & Son. The proprietary compound known as H. H. H. Horse Medicine is a familiar remedial agent in all portions of the Pacific Coast. It has gained such popularity and is in such demand that country merchants and druggists find it a necessary article to keep in stock.

A NEW COLONY

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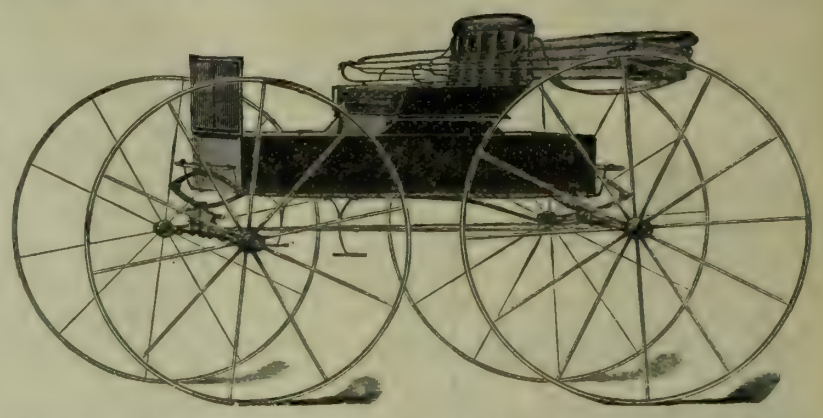
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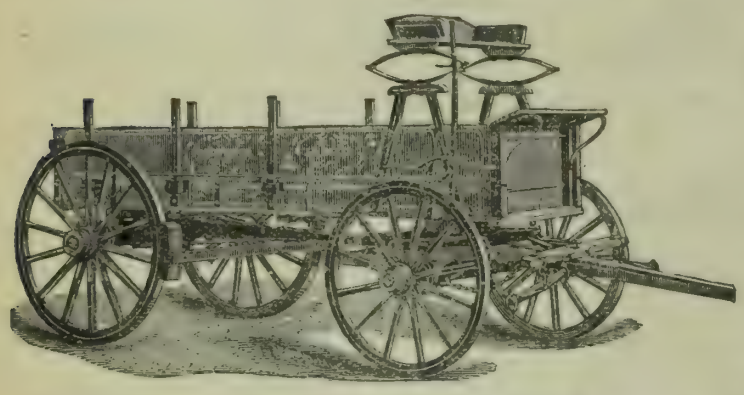
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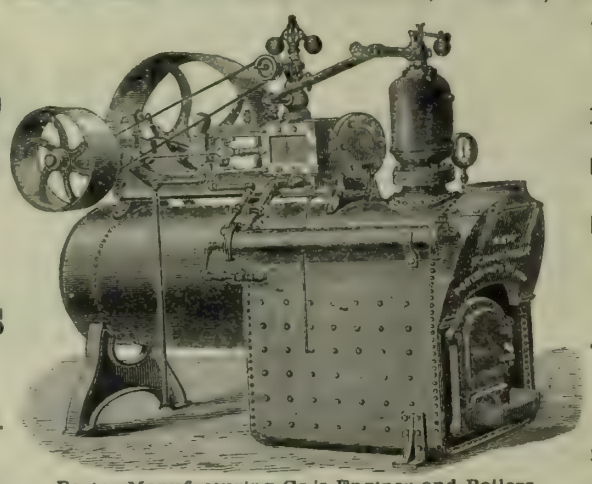
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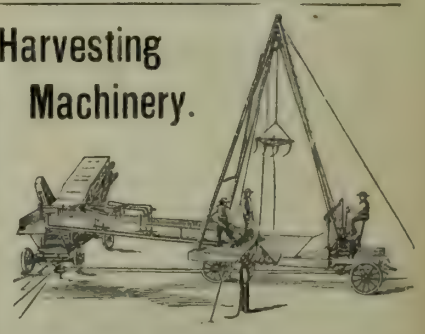
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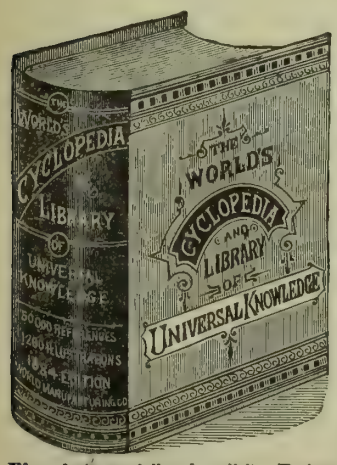
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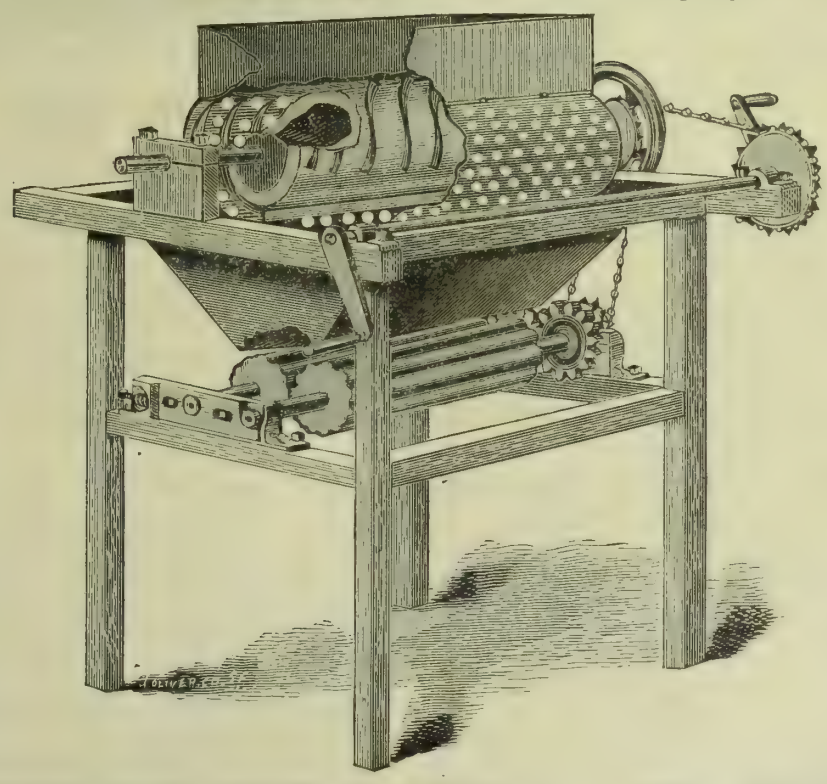
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In the operation of Mr. Worth's stemmer, the bunches, fed into the opening, are carried



IMPROVED GRAPE STEMMER AND CRUSHER—W. H. WORTH, PETALUMA.

around by the drum, the straight flange serving to turn them over and sweep them down along the sides of the drum and between it and the outer casing. The holes made through the sides of the outer casing are large enough to allow the grapes to project and pass through, and they are held by this means while the double spiral flanges act to strip the stems from the grapes, the latter falling immediately outside of the cylinders, through the holes, and without further contact with the stems. The bunches are carried around by the spiral blades and the longitudinal flange, so as to be passed around within the casing, being gradually moved toward the discharge or open end of the casing at the same time, and as they are rolled or turned over by the action of the longitudinal flange upon the drum, all the grapes upon the stems will be forced through the holes in the outer casing and discharged, so that when the stems reach the end of the casing they will be thrown out entirely clear of grapes, and will not carry any amount of skins or pulp with them, as would be the case if the grapes were partially crushed within the stemming apparatus.

We trust these descriptive notes will render the main features of Mr. Worth's improvement intelligible. Any other information concerning the machine may be had by addressing the inventor, W. H. Worth, Petaluma, Cal.

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PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

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Holstein-Friesian Cattle,

Standard-Bred Trotting Stallions,

French Coaching Stallion,

—AND—

Clydesdale Stallion,

—FROM—

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AT 1 P. M. ON

WEDNESDAY, JUNE 15th,

—AT—

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On the above date, by direction of C. F. Swan, Esq., Manager of Mr. F. T. Underhill's Ontare Ranch, Santa Barbara county, we will sell his famous herd of Thoroughbred Holstein-Friesian Cattle. It comprises fifty-seven head and includes the Premium Cattle exhibited at the California State Fair and the various District Fairs throughout the State.

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Comprising drafts from Breeding Farms of

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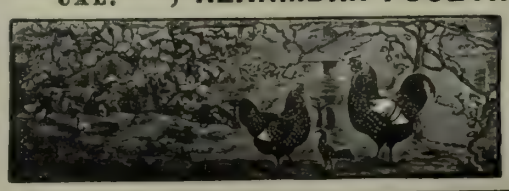
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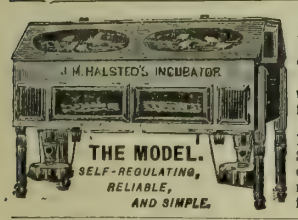
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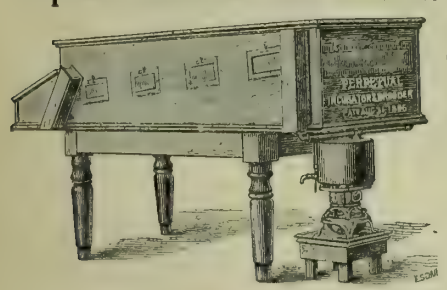
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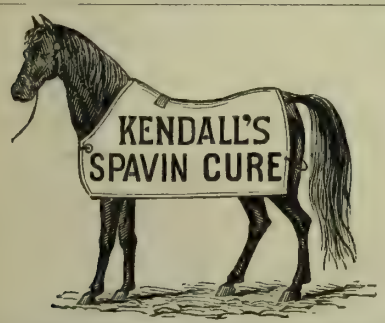
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At SACRAMENTO, Cal., Sept. 12 to 24, 1887.

$2000 in Cash for County Exhibits.

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STATE FAIR

Of the varied products of their counties. The supervisors of each county are invited to make a liberal appropriation, sufficient to pay the expenses of getting together an Exhibition of County Products. Premiums received can be returned to the treasury of each county making the appropriation, so that their respective counties would be written up and advertised at a small expense by an exhibition of this character. The Railroad Company transports the same free of charge.

THE LIVE STOCK EXHIBITION, connected with the State Fair, is sure to attract Eastern visitor anxious to view the resources of California.

APPLY FOR SPACE AT ONCE, as the Society is willing to devote the entire exposition building, if necessary, to displays of CALIFORNIA PRODUCTS. **A NEW FEATURE** has been added to the Premium List this year, in the shape of awards for a **Sheaf Display of Cereals.** Forty Sheaves, not less than 10 inches in diameter, of 10 varieties of grain are called for. Not necessary to be grown by exhibitor. Notice is now given that samples may be gathered during harvest, and laid away for exhibition. Address the Secretary for Premium Lists and other information.

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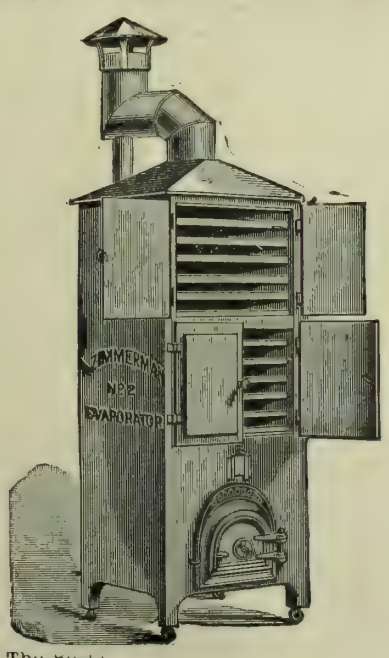
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Stationary Engines and Boilers.

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Heald's Patent Wine-making Machinery,
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Jackson's "ACME" Stacker, Loader and Rakes.

The "Acme" stacks hay, grain or straw, or loads it on wagons, at about one-third usual cost. It takes the hay from the swath (or from the cock or windrow) and puts it on the stack without manual labor. It builds high and compact stacks, which turn the rain, and the rapidity with which a crop can be harvested insures its safety. Six men and ten horses put up 100 tons a day. They have been tried in every kind of hay and grain; are a success in reaped grain. They are the best for unloading header wagons with nets, for which purpose a net attachment is used. Improved and adapted to this Coast. Every improvement tested and every machine guaranteed.

The Rakes are the best in the world! they carry from 300 to 1300 pounds, and dump the load automatically. The driver's weight balances the load so it can be carried easily. The Stacker weighs 1700 lbs., costs $150; the Rakes weigh 650 lbs., costs $50 each. Net attachment to unload header bed weighs 640 lbs., costs $50; Nets, $6 each. Satisfaction guaranteed. Write me for circulars, free. I own for this Coast the original patents covering this plan of stacking. Beware of infringements. Address

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Mixes instantly with Cold Water.

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Price, $1.25 per Imperial Gallon.



Sold in iron drums containing 5 imperial gallons, equal to nearly 6 American gallons. One gallon mixed with 60 gallons of cold water will dip thoroughly 180 sheep, at a cost of less than one cent each; easily applied; a nourisher of wool; a certain cure for scab.

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Poisonous!

Mixes instantly with water; prevents the fly from striking. In a 2-pound package there is sufficient to dip 20 sheep, and in a 7-pound package there is sufficient to dip 100 sheep Price, **17 cents** per pound.

CATTON, BELL & CO.,
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406 California St., S. F

S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 25, 1887.

Continued fine crop weather has brought all kinds of vegetation to greater perfection, particularly cereals. Movements in fruits are of larger proportion, with each day adding to the volume received and also sent to the East. Wheat abroad and at the East has ruled strong throughout the week. The following is to-day's cable:

LONDON, May 25.—Cargoes off coast, firmly held; cargoes on passage and for shipment, firm, but not active; Cal. wheat of coast, 39s 6d; Cal. wheat just shipped, 40s; Cal. wheat nearly due, 39s 6d; French country market, very firm; Liverpool wheat, spot, slow; Liverpool wheat, Cal. 7s 10½d to 8s 1½d.

Foreign Review.

LONDON, May 23.—The *Mark Lane Express*, in its review of the past week, says: English wheat has been slow. Prices advanced 6d in provincial markets. The sales of English wheat during the week were 53,573 quarters at 34s 1d, against 66,596 quarters at 32s 4d during the corresponding period of last year. Flour is steady. The supply of foreign wheat is small, but buyers are apathetic. Corn is dull; dealings have been in favor of buyers. Nineteen cargoes of wheat arrived; four were sold, nine were withdrawn and six remained. At to-day's market English wheat was scarce, and held for 1s advance. Foreign wheat was firm. Flour was against buyers. Corn was scarce and steady. Barleys were dull and lower. Oats were in favor of buyers. Pease and Linseed were unchanged.

Eastern Wheat Markets.

NEW YORK, May 21.—The closing was firm on a rally from lowest points, with losses of ½c for May and June at 96½c, and gains of ⅛ for July, at 96¼c, and ¼ for the later months as follows: Aug., 94c; Sept., 93¾c; Oct., 94½c; Nov., 95¼c; Dec., 96c.

NEW YORK, May 25—12 M.—97¾c for cash, 96⅜@96¾c for May, 96½@96¾c for June, 96⅜@96½c for July and 94@94¼c for August.

CHICAGO, May 25—1 P. M.—Wheat stronger; cash, 87⅜c; June, 88⅛c; July, 86⅝c. Corn steady; cash, 37⅛c; June, 38⅜c; July, 40 1-16c.

Eastern Wool Markets.

NEW YORK, May 23.—Wool dealers do not find much custom to encourage them, the demand proving of such erratic character as to keep the market in a very uncertain condition as to the movement and prevent a regular line of valuation on any grade. But buyers obtain no advantage on any of the desirable grades. Prices have undergone no material change. Some of the poorer wools are selling at 13c to 15c, and very choice up to 22c. The assortments are improving in quality, considerable of the arrivals being choice. Territory wools are dull. Sales have been 173,800 lbs. Texas wool is in moderate demand. Oregon wool quiet. California wool continues dull; large stocks of fall wool are on hand; sales of 113,000 lbs. are reported, and of new spring wool there has been sold 10,000 lbs.—all on private terms.

The Boston market is in an unsettled condition. Among the sales were 173,800 lbs. Territory at 17 to 24c; 47,500 lbs. Oregon at 20@22c.

In Philadelphia the situation is unchanged. Among the sales were 15,000 lbs. California at 18c; 10,000 lbs. fine Montana at 21c; 10,000 fine Territory at 18c; 8000 lbs. one-quarter Territory at 23c; 22,000 lbs. Montana at 25c.

California Fruit in Chicago.

CHICAGO, May 21.—Only fancy fruit dealers are using cherries, and they take only California, which are very fine. California, large, white, sweet in 10-lb boxes, sold at $2.50@3, and Black Tartarian at $2.25@2.50. Lemons are more in demand at $3@4 per box. Oranges unchanged, and in good supply. The demand fair, and only for choice. Common qualities rule dull. Bright Riverside, good to fancy, $3@4; San Bernardino, $3@4; Santa Ana, $2.75@3.25; St. Michael, paper rind, $3@3.50; Orange, $2.50@2.75; Los Angeles, $2.50@2.75; Navel, according to quality, $3@4; San Gabriel, $2.50@3; Blood, fancy, $4@6; culls, $2.

Dried fruits exhibit no essential change. Stocks are, as a rule, only moderate to light, and a steady feeling prevails. Peaches are the only thing in which nothing of consequence is doing: the supply, consisting mainly of old peaches, which are not cared for, and the few which would sell are very scarce. Of California dried fruits there are no stocks except of raisins and plums, and the plums are about all held by one house. Prices rule firm, and there is a good demand at the following prices: Plums, pitted, ℔ lb, 11@12c; raisins, London layers, 20-lb boxes, ℔ box, $1.50@1.75; loose Muscatel, ℔ box, $1.25@1.35; California layers, ℔ box, $1.25@1.35.

Apricots and Cherries in Chicago.

[Telegram to California Fruit Union.]

CHICAGO, May 24.—Car apricots arrived. Your men are putting in too much small scrubby fruit. Selling from $2.00 to $2.75. Cherries arrive principally in good condition, and are selling per box at from $1.75 to $2.25, while crates all sold quick at good prices—from $5.00 to $5.50.

PORTER BROS. CO., agents.

Dried Fruit and Canned Goods East.

NEW YORK, May 21.—Canned Goods—The jobbing demand is fair and the market firm for most descriptions. California pears, $2.50@3 25.

Dried Fruits—Raisins are attracting increased attention. California goods are moving out quite liberally at well-sustained quotations. Loose Muscatels, $1.25@1.35 for crown and $1.50@1.70 for three crown; London layers, $1.50 @1.75.

New York Hop Market.

NEW YORK, May 21.—An increased demand has been reported for choice German hops at 21@22 cents to cover short sales to brewers. Choice Pacifics are also in more demand and prime, with on holder reported to have withdrawn on negotiation at 18@20 cents that were pending. A 100-bale lot brought 19 cents. Medium grade 1886 hops are receiving little attention, but the scarcity of choice goods imparts a better tone all through. Reports as to the crop outlook are very conflicting. The statement is secured from a reliable source that fully 15 per cent of the acreage in hops is or will be plowed up. Pacific Coast crop of 1886, best, 19@20 cents; same, common to good, 13@16 cents; 1885, good to prime, 7@9 cents.

California Products at New York.

NEW YORK, May 21.—Beans—California Lima firm at $1.80.

Green Fruit—California tangerines are scarce at 75 cents a dozen; sweet California cherries are more plentiful at 75 cents a quart.

Local Markets.

BAGS—Trade is reported to be steadier, but as yet in a small way, owing to continued uncertainty about crops. Calcuttas are selling at 5⅝@5¾c.

BARLEY—A fairly steady market has characterized the week. Considerable has been bought by operators on Call to cover their buyer options, which are higher than the sample market. Many large farmers intend to hold barley and sell wheat. On Call, trading has continued active. To-day's sales were as follows:

Morning Session: Buyer season—100 tons, $1.05; 100, $1.04¾. Buyer 1887—200 tons, $1.18⅝; 100, $1.18⅞; 100, $1.18¾. Seller 1887—100 tons, $1.05¾; 300, $1.05. No. 1 Brewing, buyer season—100 tons, $1.17½. No. 1 Brewing, buyer 1887—100 tons, $1.27 ½ ctl. Afternoon Session: August—300 tons, $1.81. Buyer, August and September—900 tons, $1.84. Seller 1887—200 tons, $1.79½; 4000, $1.79⅝ ½ ctl.

BUTTER—The tone of the market is easier, owing to Washington Territory, Oregon and other distant points being supplied chiefly by local dairies or else by the East. Many dealers are not packing, believing that prices will recede some.

CHEESE—The market is well supplied, with a lighter trade call reported. The general tone is easy, as distant points are drawing chiefly from the East.

EGGS—Strictly choice ranch eggs are firmer, but poor are slow.

FLOUR—The market is firm at full quotations for choice brands.

WHEAT—Millers continue to pick up all the straggling parcels of choice to be had at from $1.82½ to $1.85. The stock in sight is being reduced rapidly by shipments to Europe. On Call transactions, the past week, were free, with seller '87 the favorite option. The following are to-day's sales:

Morning Session: Buyer 1887—200 tons, $2 02½. Seller 1887—400 tons, $1.79⅝ ½ ctl. Afternoon Session: Buyer season—500 tons, $1.05; 200, $1.04¾. Buyer 1887—100 tons, $1.18⅜; 800, $1.18¾; 500, $1.18½. Seller 1887—200 tons, $1.04¾; 200, $1.04½; 300, $1.04⅝ ½ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Eastern advices report that the wheat syndicate has control of about 5,000,000 centals of the visible supply east of the Rocky mountains. If this be correct then they are, for the next 30 odd days, masters of the situation. This season of the year is generally favorable to an active manipulation on the up-grade, owing to foreign crops being subject to the vicissitude of climatic changes, particularly in Great Britain. Every decided unfavorable turn in the weather will be a pretext to turn the price of wheat up a peg or two. That the syndicate expects to operate in this way is reasonably certain, from the fact that they are getting all the wheat they can to the seaboard so as to ship at a moment's notice. In this State the same tactics is being pursued, for vessels have been taken for quick loading so as to dispose of cargoes, if necessary, on passage. The quantity that will be cleared from this port before July next will aggregate fully 50,000 tons; some place it at about 100,000 tons.

Crop advices received from Europe are generally of a favorable character, yet it is some time before harvest and the most trying time is to come.

All information to hand reports that the consumption of wheat-flour abroad has been quite large, owing to the small rye and root crops. This year these crops promise to be fully if not above an average.

Eastern advices, taken as a whole, are not favorable to an average wheat outturn this season. Taking this coast and the East together it is hardly safe to place the entire crop of the country at over 425,000,000 bushels, a shortage compared with last year of fully 35,000,000 bushels.

In this State crop prospects continue favorable, but fears are freely expressed that hot north winds may do considerable damage next month.

The local wheat market has ruled strong throughout the week notwithstanding the light trading. Heavy exporting is going on, which will cut down the visible supply by the end of June to a very small quantity.

The low freights to the East have caused a slight increase in the call of choice grades of barley, but owing to holders' advanced views trading is light. The demand from local brewers is reported to be fair for the season, with the supply light. The demand for feed barley continues active, but buyers confine their purchases to actual requirements. The estimates of the yield this year have been reduced, owing to many fields being cut for hay—the latter bringing more money proportionately than barley. It now looks as if the incoming crop of barley will hardly meet the consumption of the State, even with the carryover from this season added to it, which will cause high prices later on.

The local barley market ruled fairly firm throughout the week, with free sales by the bears, owing to more favorable crop weather, but with the first blast of hot winds then they will run to cover and advance prices quite rapidly.

Rye is scarce and high. Buckwheat is barely steady.

Corn is in fair demand at full prices, with white quite scarce.

Choice oats are in moderate supply, but fair grades are in good supply. Crop advices from Oregon and Puget Sound are favorable to more than an average yield to the acre.

Feedstuff.

Bran and middlings are in good inquiry, with values well maintained. Cracked and feedmeal are steady, as is oilcake meal.

Choice old hay is in better demand, with buyers paying well up, so as to have their wants met. New is coming in more freely, but meets with a slow market.

Fruits.

Cherries are coming in very freely, but are absorbed by canners and the trade. Sales made to canners ranged from 6 to 7 cts for Royal Ann, and 4 to 5 cts for Gov. Wood and Oxheart. Some cherry plums came in, but did not sell readily at fancy figures.

Under the lower freight tariff overland, heavy shipments are being made of all kinds of seasonable fruits.

Apricots are coming in, but as yet they are not any too ripe for the table.

Some green apples were received the past week, which were hard to sell. Canners are buying gooseberries at from 1½ to 2 cts ℔ lb. The crop this year is large.

Strawberries fluctuated considerably the past week. Owing to the high prices ruling, canners do not buy except to clean up a consignment at low values.

Currants are coming in more freely, but as yet command high prices. Canners expect to be able to run on them within the next two or three weeks.

Raspberries continue scarce, and owing to high prices the demand is slow.

Choice dried fruits are very scarce and command full prices. Eastern advices report a good demand for apples and peaches, with a slight advance paid for something extra.

Eastern advices report a growing scarcity of choice California raisins, with an advance obtainable. In our market there is nothing new to report. The stock is light, with dealers firm in their views.

Live-Stock.

Continued free receipts of seasonable fruits and vegetables operate against the meat market, as does the weather, owing to the latter not allowing butchers to carry much of a supply. The market for bullocks and mutton sheep favors buyers, but veal and lambs are firm. In milch cows there is very little doing. In horses there was more trading the past week, chiefly for medium sized general utility animals to be used principally by campers out. The railroads are about supplied with all the work animals required for some time.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8c; first grade, grass fed, 7@7½c per lb.; second grade, 6¾@—c; third grade, 6c.

MUTTON—Ewes, 6c; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8¼c; small, 6@8c.

PORK—Live hogs, 4¾@5c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

All quotations for old potatoes are withdrawn, owing to the trade call running chiefly on new. As yet there are few varieties of new in the market. Prices are lower under freer receipts. Old potatoes are in fair supply, but the demand is light.

New onions are coming in in better condition, with the more matured fetching top quotations.

Canners continue to clean up the market on green peas. Asparagus continues firm, with slight daily fluctuations. Under heavy receipts of tomatoes from Los Angeles, prices broke. It now looks as if prices will go still lower. String beans are in liberal supply, as are all other seasonable vegetables.

Miscellaneous.

Choice beans are scarce and higher, owing to a good demand from the East, where the stock is light and higher prices rule. It is thought that the East will have to import foreign, so as to have the trade wants met. The crop in this State will be below an average.

Active trading continues to be reported in wools, chiefly for shipping to the East. Both buyers and growers appear anxious to take advantage of the present low tariff overland. The freight is $1 per hundred in grease, and $1.50 per hundred scoured.

Owing to continued unfavorable crop information from New York, hops are more firmly held. The crop in this State promises to be large.

Honey and beeswax continue in buyers' favor, with a slight advance obtainable for choice.

In nuts there is nothing new to report. The stock here is light, as is the demand.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	247,101	251,963
In port, disengaged	120,803	30,170
In port, engaged	17,038	27,363
Totals	385,042	309,396

The above gives a carrying capacity as follows: 1887, 616,067 short tons; 1886, 495,033 short tons; increase over last year, 121,034.

In poultry, geese are weaker, but choice roosters, broilers, and hens are firm and wanted.

San Francisco, May 25, 1887.

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 25, 1887

Apples, bx com.	1 50	@	—
do choice	2 50	@	3 00
Apricots, bx	75	@	1 25
Bananas, bunch	2 00	@	3 25
Blackberries, ch.	—	@	—
Cantaloupes, cr.	—	@	—
Cherries white bx	25	@	65
do black bx	40	@	1 00
do Royal Ann	70	@	1 25
Cherry plums	—	@	—
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants dr	50	@	65
Gooseberries lb.	1½	@	2½
Figs, bx	—	@	—
Grapes	—	@	—
do Rose Peru.	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	10 00	@	11 00
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	8	@	10
do pared	18	@	20
do evaporated	20	@	30
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8	@	12½
Zante Currants	8	@	—

RAISINS.

Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 75
do Choice	2 00	@	3 00
do Navels	3 50	@	5 00
do Panama	—	@	—
Peaches, bx	—	@	—
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries dr	1 00	@	1 50
Strawberries ch.	3 50	@	7 50
Watermelons 100	—	@	—

DRIED FRUIT

Apples, sliced, lb	5	@	7
do evaporated	12	@	13
do quartered	4	@	5
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	13	@	13½
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4

Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.

Artichokes, doz	—	@	—
Asparagus ℔ bx	50	@	1 50
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	7	@	10
Pumpkins pr ton	—	@	—
Squash, Marrow fat, 100	10 00	@	12 00
do Summer bx	1 00	@	1 25
String beans lb	1½	@	3
Tomatoes box	1 00	@	1 75
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs.	75	@	1 00
Carrots, sk	35	@	—
Cauliflower, doz.	—	@	—
Eggplant, ℔ lb.	15	@	25
Garlic, lb	1½	@	2½
Green Corn, small box	—	@	—
do large box	—	@	—
Green Peas, sk.	30	@	50
Sweet Peas	50	@	65
Lettuce, dos	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb.	8	@	20
Rhubarb bx	60	@	1 00

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 25, 1887

BEANS AND PEAS.

Bayo, ctl	2 00	@	2 75
Butter	1 75	@	2 25
Pea	1 80	@	2 15
Red	1 40	@	1 65
Pink	1 25	@	1 60
Large White	1 90	@	2 15
Small White	1 75	@	2 25
Lima	1 75	@	2 50
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—

BROOM CORN.

Southern per ton	50	@	75
Northern per ton	50	@	75

CHICORY.

California	4	@	4½
German	6½	@	7

DAIRY PRODUCE, ETC.

BUTTER.

Cal. fresh roll, lb	18	@	20
do Fancy br'ds	21	@	—
Pickle roll	20	@	24
Firkin, new	16	@	20
Eastern	—	@	—

CHEESE

Cheese, Cal., lb	9	@	10½
Eastern style	11	@	12

EGGS.

Cal., ranch, doz.	18	@	19
do, store	16	@	17
Ducks	—	@	—
Oregon	—	@	—
Eastern	15	@	16

FEED

Bran, ton	20 50	@	21 50
Cornmeal	24 00	@	25 00
Gr'd Barley ton	25 00	@	26 00
Hay	10 00	@	14 00
Middlings	23 00	@	24 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60

FLOUR

Extra, City Mills	4 70	@	5 45
do Co'ntry Mills	4 20	@	5 20
Superfine	3 45	@	4 20

GRAIN, ETC.

Barley, feed, ctl	1 10	@	1 17½
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 07½	@	1 15
Yellow	1 05	@	1 10
Small Round	1 10	@	1 20
Nebraska	1 05	@	1 10
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 25	@	1 50
Wheat milling. Gilt edged	1 85	@	1 90
do choice	1 80	@	1 85
do fair to good	1 75	@	1 80
Shipping choice	1 80	@	1 87½
do good	1 75	@	1 80
do fair	1 70	@	1 75

HIDES.

Dry	14	@	16
Wet salted	7½	@	8½

HONEY, ETC.

Beeswax, lb	20	@	22
Honey in comb,	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½

HOPS

Oregon	17½	@	22½
California	15	@	22½

ONIONS.

Pickling	—	@	—
do new	50	@	1 00

NUTS—JOBBING.

Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hd shl.	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20

Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8

POTATOES.

Burbank	—	@	—
Early Rose	—	@	—
Cuffey Cove	—	@	—
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	—	@	—
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	—	@	—
Peerless	—	@	—
Salt Lake	—	@	—
New Potatoes	75	@	1 50

POULTRY AND GAME

Hens, doz	6 00	@	8 00
Roosters	6 50	@	12 50
Broilers	3 50	@	8 00
Ducks, tame	5 50	@	8 50
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 00	@	1 50
do Goslings	1 25	@	1 75
Wild Gray, doz	—	@	—
Turkeys, lb	16	@	18
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz.	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—

PROVISIONS.

Cal. Bacon.

Heavy, lb	9	@	10
Medium	9	@	10
Light	11	@	12½
Extra Light	13	@	13½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	12½	@	14
do Eastern	14	@	15

SEEDS.

Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	2½	@	3
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	11	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—

TALLOW

Crude, lb	2	@	
Refined	5	@	

WOOL, ETC.

SPRING—1886

Humboldt and Mendocino	21	@	24
Sact'o valley	17	@	22
Free Mountain	21	@	25
N'hern defective	—	@	—
S Joaquin valley	12	@	17
do mountain	15	@	19
Cava'r & F'tu'll	15	@	19
Oregon Eastern	17	@	24
do valley	19	@	26
Southern Coast	10	@	16

Sales Dates Changed.

After the page of this week's RURAL containing notices of cattle sales had been printed we received notice from Killip & Co. that two sales dates had been changed so that the sale of Holsteins from the famous Ontare herd will take place at Oakland Park on Thursday, June 16th, and the combination sale of thoroughbreds from the farms of Messrs. Winters, Pritchard, McShafter and Todhunter will be held at Agricultural Park, Sacramento, on Thursday, June 23d. Readers will notice that the change makes the date of each sale *one day later* than stated in the advertisement in this week's RURAL. Both of these sales should attract wide attention, as the breeders offering animals are among the best stockmen in the State.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

BATCHELOR & WYLIE,

SOLE AGENTS FOR THE

ACME STEAM HEAT EVAPORATOR CO.

OF CHARLOTTE, MICH.

When any person investigates the different processes by which fruit is evaporated, with a view of making it a profitable business, he ought to look to the following vital points, to wit:

Absolute Safety from Fire.

Greatest Capacity with Least Labor and Fuel.

Quality that Brings the Highest Price, Produced with the Least Skill.

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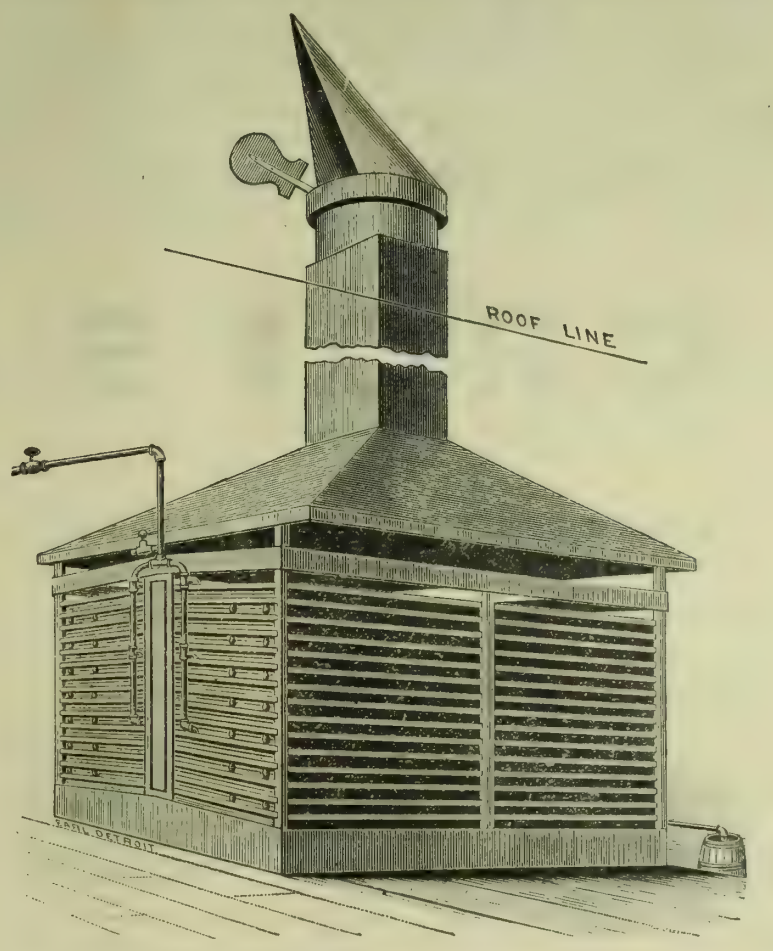
We KNOW that all these qualities are embraced in our Acme process.

The subjecting of fruit to a high degree of heat, and carrying the moisture over fruit partially dried, is wrong. On the contrary, the true theory is a direct, low degree of heat that will not burn or scorch, and good ventilation. Sufficient heat to force the moisture out of the article dried is all that is necessary, if the moisture is carried away immediately. Our machine does this in such a manner that the moisture from one drying chamber does not go through or interfere with the contents of the other chambers, and this is accomplished without cooling the steam chambers.

THE MACHINE

By which the foregoing results are attained, consists of a succession of flat steam chambers, placed one above the other, in close proximity, leaving room between them for the introduction of trays of fruit.

These chambers are filled with steam, or heated water, by a continuous current of even pressure, which imparts a uniform heat to the machine, thus securing even drying.



As the moisture is expelled from the fruit it is carried away from the machine, without coming in contact with any other fruit, thus preventing cooking or steaming, and also hastening the process.

Moisture thus removed does not need to be disposed of by evaporation, thereby avoiding the necessity for intense heat; while, by applying heat of the same temperature from both above and below, we dry the fruit on both sides (which no other machine does), thus inclosing, in a measure, the juice, which a further subjection to heat so cooks as to render fixed and safe, so far as keeping is concerned, as jelly.

Thus we retain the flavor, so essential to good fruit, but impossible by any other process.

In these machines two tiers of steam chambers are placed side by side with a space between them.

The steam chambers are inclined toward the outside, which causes all water from condensation to flow to the outer edge, whence it finds its way out, through the lower connections. This arrangement enables us to have the spaces of uniform width, and leaves the second connection free at all times for the passage of steam.

Through the devices attached to the machine, the degree of heat is under the control of the operator; but it is also true that the immediate removal of moisture is as important as a high degree of heat.

The hood gathers the heated vapor, which rises through the center of the machine, conducting it to the flue from whence it passes out of the building.

In use there is a constant flow of vapor through the drying-chamber into the space between the tiers of chambers, thence up through the hood and flue above it. So perfect is the operation that no moisture escapes into the room where it is operated.

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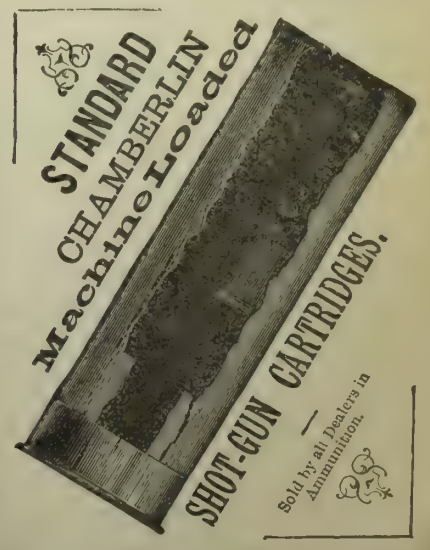
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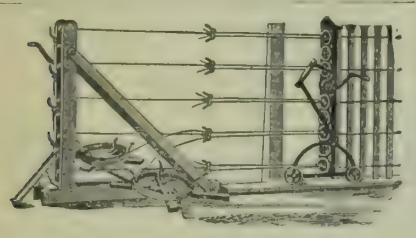
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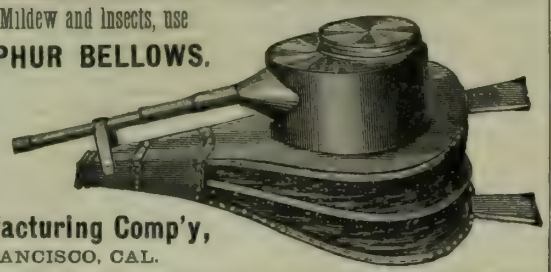
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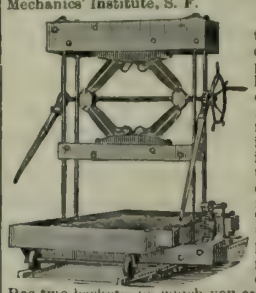
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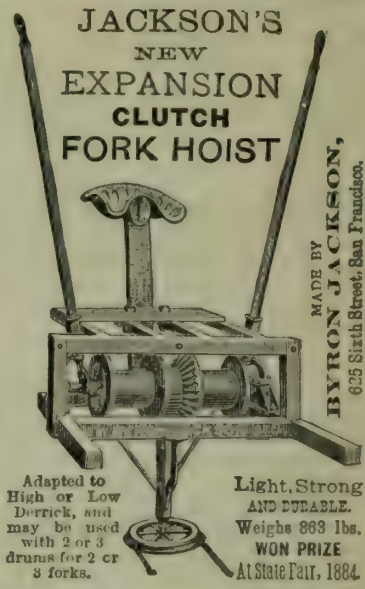
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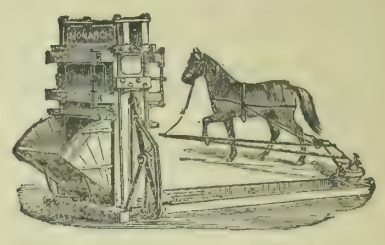
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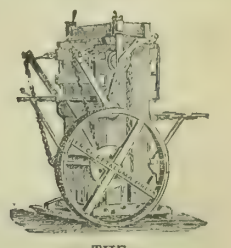
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The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia,** therefore, total of Nitrogen calculated as **Ammonia,** 2.72 per cent.

This **Fertilizer** is a **Valuable Manure** for vineyards, orchards, gardens, farms, and I **recommend** its use by the cultivators of the soil **generally,** in **California.** Yours truly, DR. E. A. SCHNEIDER.

University of California, College of Agriculture.

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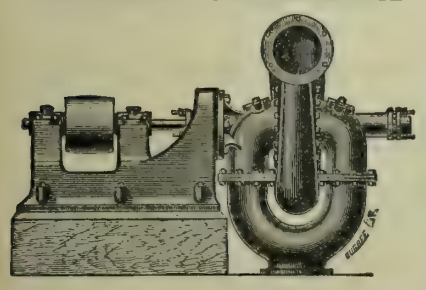
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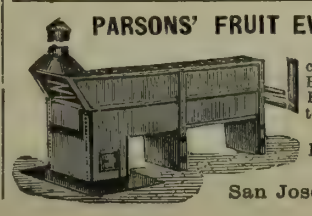
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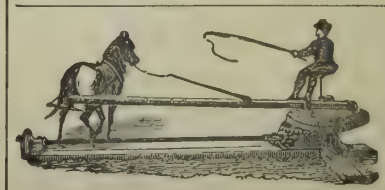
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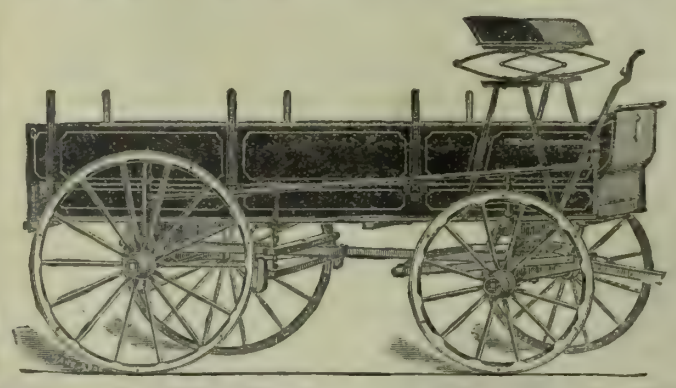
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Placed in the hands of MR. GEO. SCHONEWALD, of the famous Del Monte.

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The Milburn Hollow Iron Axle Wagon.

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And California Roller Brake.

THIS WAGON IS MADE ESPECIALLY TO OUR ORDER FOR THE PACIFIC COAST TRADE. More of these wagons sold than all other wagons on the Coast combined. This is the ONLY WAGON that the farmer can RELY UPON. Over 40,000 now in use and only six have been in any way disabled; axles slightly bent, not one broken. Of what other wagon can you speak of in such praise? True merit leads. These axles are Wrought Hollow Iron case hardened, and as for strength, durability and lightness of draft, it cannot be excelled by any other wagon in existence. The wheels run through boiling oil.

It is the Strongest and Lightest Wagon in the world. The only wagon that IS GUARANTEED is the Milburn Hollow Iron Axle Wagon.

☞NOTICE THIS GUARANTEE. We will replace, FREE of charge, every BROKEN Axle sold by us, no matter under what condition it broke or what the load weighed. **THE MILBURN HOLLOW IRON AXLE IS GUARANTEED** to be well made and of good material; and, if with fair usage, any breakages occur within one year, from **defects in material or workmanship**, we will, on application, and the RETURN of the broken or defective parts, stating DATE OF PURCHASE, size of wagon and cause of breakage, furnish new parts, or order them replaced without cost to the purchaser Unless these conditions are complied with, claims for breakages, etc., will not be allowed. We furnish new Axles FREE for any broken hollow Axles. Buy the **Milburn Hollow Iron Axle Wagon,** because it pays to buy the BEST.

TESTIMONIALS.

MADERA, CAL., May 18, 1887.

MESSRS. TRUMAN, ISHAM & HOOKER, San Francisco—Gentlemen: We have 4 of your MILBURN HOLLOW IRON AXLE WAGONS, and our verdict is they are the best wagon ever run. We have never had a breakage, and in carrying capacity and lightness in running they surpass any farm wagon we have ever used, and we have used many different kinds.

DAVIS & EDWARDS.

STOCKTON, CAL.

MR. H. T. HUDSON, Stockton, Cal.—Dear Sir: We take pleasure in being able to testify to the many good qualities of the MILBURN HOLLOW IRON AXLE WAGON. We have severely tested it in hauling enormous loads of green lumber from the Water Front to the Lumber Yard on East Street, in this city, and many loads weighing five tons, and it has never failed us. Its timber seems well seasoned, and for light draft it surpasses any other wagon ever used by us, and almost runs itself. We shall probably need another and a larger one before long. We can cheerfully recommend them to the public. Yours very truly,

E. B. DEAN & CO., Lumber Dealers.

KINGSBURG, CAL., May 3, 1887.

MESSRS. TRUMAN, ISHAM & HOOKER, San Francisco—Gentlemen: I bought a 3½ Hollow Axle Wagon of your agents, Harp & Ball, last August, and rigged it for hauling lumber from the mountains, and must say that though I had heard a great deal in its favor, I was not ready to pronounce it as near perfection as it is. I can haul more lumber on my wagon with 6 animals than can be drawn by 8 on any other make I ever used, and although I loaded heavy and hauled over very rough roads, I was not put to one dollar extra expense. I have not seen a man yet who has a Hollow Axle Wagon who would trade even for any other wagon and take the box and brake for boot.

Yours very truly, SAMUEL OLDHAM.

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OF EVERY DESCRIPTION.

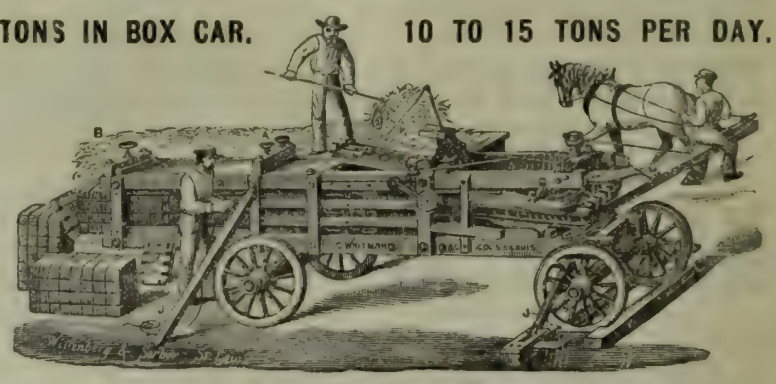
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PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 23. SAN FRANCISCO, SATURDAY, JUNE 4, 1887. $3 a Year, in Advance; Single Copies, 10 Cts.

A School for Nurses.

Mr. D. O. Mills' donation of a handsome sum for the erection in New York of a training school for male nurses is more significant than the bare announcement of the news would indicate. The idea is unique, as hitherto the benefit of this sort of instruction has been almost exclusively confined to females, though it is obvious that the services of men in the sickroom are often imperative. The course of instruction includes everything needed to make one skillful in the art of nursing, such as bed-making, change of patient's position, the application of various remedies, the use of the bath, friction, electric battery, etc., dressing of wounds, bandaging, and padding of splints, the effect of medicines and diet, methods of recording temperature, respiration and pulse, with elementary instruction in anatomy and physiology.

It was only a few days ago that we heard an Oakland physician express a wish that he could find a skillful nurse. He said good nurses were hard to obtain, as many assumed the duty as a makeshift till some more agreeable vocation could be found. He thought it would be a beneficent thing to encourage training schools for nurses, in connection with our medical institutions, and expressed the opinion that in a pecuniary point of view educated skill in this direction offered to women the best inducements.

Be this as it may, a special fitness is required to enable one to become a successful nurse, just as a special fitness is needed to excel in music or the practice of medicine. Doctors cannot be made to order, neither can nurses. Automatons with diplomas are turned out every year by the hundreds, but where the inborn, God-given aptitude is lacking no amount of instruction can supply it. A good nurse must be in perfect health, able to endure loss of sleep, irregularity of meals and lack of open-air exercise; possess a cheery, sunny disposition, inspiring magnetism, great presence of mind under sudden and trying circumstances, courage to face the pestilence and most violent contagious disease; and, above all, that kind of love for humanity, sympathy and tenderness of heart that merges self in the presence of the sick and afflicted.

There is some talk of arranging a competitive display of Florida and California Navel oranges at Riverside next winter.

W. I. Bananas in California.—A novelty in the fruit-trade was the receipt at Sacramento by W. R. Strong & Co., May 26th, of a cargo of bananas from the West Indies via N. O. The *Record-Union* thinks it is the first time that this fruit has reached this part of the world. It shows what can be done in this day of quick railroad communication and facilities for safe handling over long distances. The fruit came in one of the S. P. fruit cars, by passenger train, and arrived in excellent condition. It differs from the banana with which we are familiar on this coast, in that many of the bunches are of much greater size, while the fruit is of different shape. Arrangements have been made to distribute this tropical cargo as far east as Utah and Montana, and, by the quick time now made by the California & Oregon route, to the "Webfoots" and other inhabitants northward.

The June flood in the Columbia and Snake rivers, caused by snow melting in the mountains, is on a fortnight earlier, and somewhat higher than usual. Lewiston, Idaho, is partly inundated, and the old warehouse of the O. R. & N. Co., at Almota, has been swept away.

Assignment of J. M. Hixson & Co.—It is telegraphed from Chicago that J. M. and W. D. Hixson, lately of this city and recently of Chicago, have made an assignment with liabilities placed at $10,000. The creditors are said to be mainly in California.

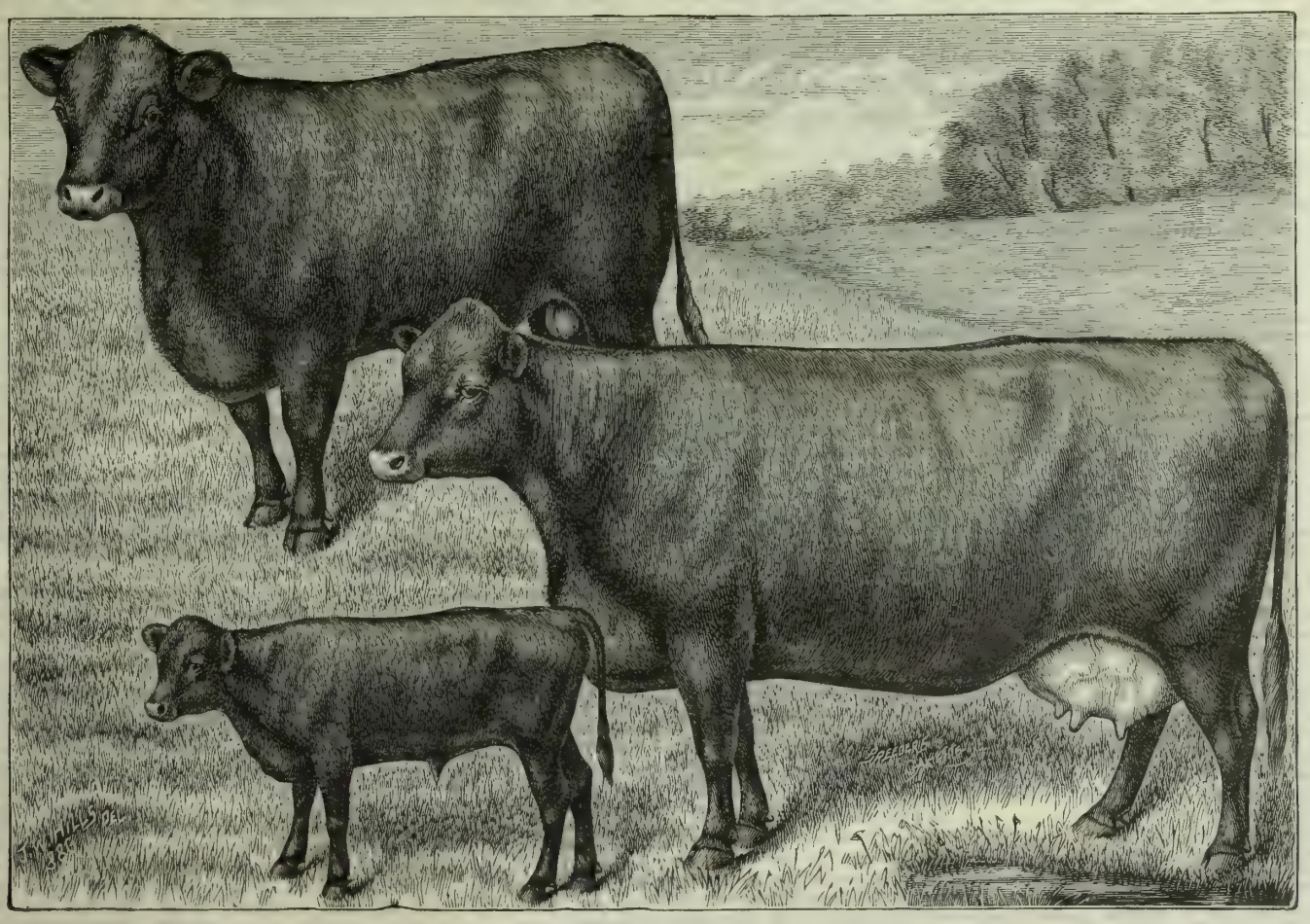
Hog Cholera is said to be epizootic in San Diego county to a disastrous extent.

Irrigation Efforts.—There is cropping out quite a difference of opinion, in certain districts where irrigation enterprises are mooted, about organizing districts under the Wright law. It is natural that there should be contest on this point. There are certain areas of the State where a good part of the people are opposed to the introduction of irrigation water for various reasons. They are certainly entitled to be heard, and to put forth efforts to make their opinions prevail. It is not intended to force irrigation upon people who do not want it, and wherever possible districts should be laid out to exclude such areas. This will not always be possible, and in this, as in other commendable public improvements, the good of the greatest number must be consulted. We trust full discussion and consideration will be given to the subject before action is taken in any district, and the bearings of all mooted propositions be understood. There is often much gained by throwing full light upon vexed questions.

Wool Over the Canadian Pacific.—One hundred and eighty tons of wool from the Miller & Lux ranges in Fresno were shipped on the steamer City of Stockton, on the 19th inst., to San Francisco, on the way to Boston over the Canadian Pacific railroad.

The first new honey of the season was received in S. F. May 27th, from L. W. Burr, Bakersfield, Kern Co., and said to be first-class.

The High-License Bill, passed by the late N. Y. Legislature, has been vetoed by Gov. Hill.



RED POLLED COW DUCHESS OF IOWA 2772, AND HER CALVES, SLASHER 2ND AND HAWKEYE.

Red Polled Cattle.

Whether it is better to dehorn cattle or to breed hornless animals is now quite a popular question. We have had articles stating the advantages of each method of procedure. It must be acknowledged that much progress has been gained during the last few years, in making a case against horns as useless, if not objectionable, appendages, and in bringing the people to the idea that even a hornless head is beautiful. It is not likely, however, that any sweeping changes in the head-gear of our live-stock will be made. One cannot mold animal anatomy as quickly as fashion shapes a lady's bonnet, even if one uses a chisel or hand-saw. There will probably be "horned stock" for those who like them for many generations to come.

Our readers have been shown during the last few years portraits of all the famous hornless breeds, the Galloways, the Aberdeen and Angus, the Red Polled, etc. Upon this page we have a group of the last-named breed which will, we are sure, have an influence in winning admiration for the hornless cattle on the ground of shapeliness and beauty. They are already recognized as valuable dairy stock. The animals in the engraving are the property of Hon. L. F. Ross, of Mount Prospect Farm, Iowa City, Iowa. Gen. Ross is doing much for the Red Polled interest in this country by his intelligent and enthusiastic advocacy of the breed. The central figure in the engraving is the Red Polled cow Duchess of Iowa, 2772, A. P. R. 40, and the other animals are her two calves, Slasher 20, as a yearling, and little chap Hawkeye, taken before he was 24 hours old. The Duchess of Iowa was the first pure-blooded Red Polled heifer born in Iowa, her dam Jilt 2274 was bred by the Duchess of Hamilton and Brandon, one of the most noted breeders of Red Polled cattle in England. The cow is a grand-daughter of a superb bull, Slasher 577, whose weight was over 3000 pounds. At 26 months old she gave 38 pounds of milk per day. At three years old she weighed 1110 pounds. Her first calf, Slasher 2d, weighed, at one year old, 720 pounds. Her second calf, Hawkeye, at 14 hours old (when the sketch was made), weighed an even 100 pounds. The entire family, mother and two sons, are all natives of Iowa, are all "Hawkeyes," and are fair specimens of the breed, as reared there. The Red Polled cattle are constantly growing in favor at the East.

HORTICULTURE.

The Fruit Prospects.

The following interesting paper was read by B. M. Lelong, Secretary of the State Board of Horticulture, at the meeting of the State Horticultural Society on May 28:

Mr. President: It was suggested to me by a member of the board of which I have the honor to represent, to ascertain from the fruit-growers of California the actual condition of their crops and the general fruit prospect of their sections for this year. In reply to my letters of inquiry, I received the following, which I lay before you, the contents of which are for your kind consideration:

Placer County.

N. R. Peck, Penryn, May 17th, reports: "I have interviewed the Assessor, the shippers, and also many fruit-growers in the county. Apricot crop good; plum, fair; pears, very good; cherry, good. The prospect for the fruit-growers is considered good. The peach crop is very large."

F. W. Butler, Penryn, May 22d, reports plums light. The trees blossomed free, but the young fruit is falling off. Bartlett pears promise a full crop. Cherries are largely marketed; the crop has been quite light; the trees blossomed profusely, but the fruit failed without apparent cause. Peaches, more than the average crop; the trees are very heavily laden. Crops on low ground are damaged by late rains, but not injured on high ground. The prospect for fruit-growers this season is a good average. Peaches is our leading crop.

Nevada County.

Felix Gillet, May 24th, reports Nevada county as follows: "There are but few apricots in the mountains of Nevada county. What fruit there was was killed by the gum and frosts. No apricots up here this year. The plum crop is quite short; the gum and frost injured it badly. There will be but few plums in this county this summer. Pears in our neighborhood were not hurt by frost, though they were in some places around Grass Valley. Bartletts are all right, but a great many pears are damaged, having been badly hit by hailstones on the 29th of April. The average crop is very short, caused mostly by the gum and by the frost on the 11th of May. The apple crop, as it is an odd year, will also be short. The general fruit prospects for the fruit-growers are bad this season. The pear and even apple crops would yield well, though, if they were not at the mercy of the codlin moth."

Butte County.

George M. Gray reports Chico, under date of May 20th, as follows: "The apricot crop is very large in some parts of the orchard, and quite badly covered with shothole fungus. Plum crop and prune crop good. Never had a better show for Bartlett pears, not crowded as sometimes, but enough for a good crop. Cherry crop, which is three-quarters gathered, is not quite an average, but No. 1 in quality. Napoleons very heavy; Tartarians set very full but nine-tenths blasted. Had one-tenth more staid on the trees there would have been a large crop. Peach trees never had a more even set. We usually had to thin out a good deal, but this year there are just enough on the trees."

Sacramento County.

C. W. Reed, of Sacramento, under date of May 13th, reports as follows: "The prospects for a good crop in the Sacramento valley generally were never better, especially for apples, apricots, cherries and peaches. The plum crop is light. The cold nights and north winds for the past week have caused the pears to drop considerably, but yet I think it may be considered a full crop, judging from my own orchard."

Sol Runyon, Courtland, May 25th, reports Sacramento river as follows: "The prospect for the fruit-growers this season is good. Plums are somewhat short. Cherry crop also short on account of cold weather and rain on bloom, which caused them to drop. Apricots, large crop, also peaches. Pears are short, Bartletts in particular. Seckles have a very large crop this year."

Ventura County.

N. W. Blanchard, Ventura county, May 23d, reports apricot good crop. The plum cuts no figure in this county. The pear crop is good, also apples and peaches. Cherries only in exceptional localities do well. Prospect for fruit-growers good.

Yolo and Solano.

Webster Treat, Davisville, May 13th, reports that the plum crop is rather short; pear crop, medium; peach and apricot, large; almonds, fair; cherries, light.

A. T. Hatch, Suisun, May 18th, says of the Solano county crop prospects: "Apricots, extra fine; plums very short; never saw as fine a prospect for Bartlett and Winter Nelis pears; cherries short, attributable to the rain on the bloom. The general prospect for fruit-growers in this section is good."

Napa and Sonoma.

Drury Melone, Napa, May 18th, writes that the apricot crop in that county is very good, plums are short, pear crop short, Bartletts in particular; the cherry crop is short; fruit in Napa county will be of fair quality.

Robert Hall, Sonoma, May 20th, reports apricot crop best in five years. Plum crop large, trees overloaded. Bartlett pears in our neighborhood will be a fair crop if later they do not drop; but 50 per cent are blighted, therefore not over one half can be marketed. I do not understand why our cherries should not have set better, and would like to have this subject brought up for discussion. The trees blossomed beautifully; birds were not destructive, and cherries set well. All at once they commenced falling—indications of blight. To illustrate, I have a block of 600 trees. On the east side white varieties, on the west all are black; the easterly half is an abundant crop, while the westerly will hardly pay the cost of cultivation. On the easterly side of this block a black Tartarian occasionally may be found, surrounded by Eltons or Royal Ann. In that case the trees are loaded. Yet with the same method of pruning, the same age, same cultivation, same soil, same drainage, others in this valley have an abundant crop, and in some cases (and the latter include the majority) the cherry crop is light. The general prospect for fruit-growers in our section this season is, provided prices do not drop out of sight, the best in 10 years.

Alameda County.

H. W. Meek, San Lorenzo, Alameda county, writes: "The apricot crop is very large, plums short; Bartlett pears are full and Winter Nelis about half a crop; the cherries are short; general prospects for fruit-growers this season very good." He thinks the shortage in the cherry crop is due to heavy rains while the trees were in bloom.

Santa Clara County.

A. Block, Santa Clara, May 18th, reports as follows: "Apricots in Santa Clara county, full crop, though they are now thinning very much; yet I expect that a full crop will be left. My estimate of apricots in this county is 5000 tons—not 15,000, as my friend Judge Blackwood makes it. (Judge Blackwood at the last meeting of the society, while discussing the dangers of overproduction, made this among several other estimates.) The most this county ever raised in the best year was 1700 tons, probably not that; if you multiply by three it is a proper estimate of this year's crop. The plum crop will be light, prunes the same. My pear crop is fair, also Bartletts, though I am informed that others have light crops of Bartletts. Winter Nelis are almost a failure, generally so, except possibly in a few localities. The cherry crop is short, due to cold weather in the early part of April, which destroyed the bloom. Have been informed that peaches have been frost-bitten at the Willows, near San Jose, by the cold spell of last week; that many are injured, the pit becoming black, though they are holding to the tree yet. Some parties say that all of theirs were frosted; this, however, was only in this locality."

Tulare and Fresno.

Isaac H. Thomas, Visalia, May 18th, reports that in Tulare and Fresno counties the apricot crop is heavy and the peach and nectarine crop fair. Cherries do not do well; there is too little humidity in the atmosphere for cherries. Bartlett pears are a fair crop, apples light and plums and prunes very light. The cause of failure of plums, prunes and apples I don't know. Apples had light bloom; plums and prunes bloomed full, but did not set their fruit. The general prospect for these two counties is good.

Santa Barbara County.

Joseph Sexton, Goleta, Santa Barbara county, reports that fruit prospects are generally good, apricots in particular of all kinds full; but plums do well in that county; the cherry plum, red egg and green gage are all full; pears full crop, except Winter Nelis; walnuts and prunes, prime; cherries do not do well in that county. There will be great wastage of fruit this year, no preparations having been made to save it. It is too late to do much now.

Summary.

Many other letters were also received, giving similar statements. While the amount of letters received do not comprise all the counties in the State, yet enough information has been received to show that the cherry crop, the plum, the Bartlett, and the Winter Nelis pear crops will not be as large as was anticipated at the early part of the season. In some sections the cherry crops have almost been a failure, caused by the late rains on the bloom. The cold spell also did considerable damage, causing the cherries to drop after having attained a fair size. In some orchards the damage was not felt. As the trees were overloaded, the fruit which remained became of better quality. The same may be said of the plum crop and of the Bartlett and Winter Nelis. Of course there are exceptional places; for instance, Mr. Pepper, of Petaluma, reports his crop of plums to be very large, while his apples and pears are almost a failure. Notwithstanding the many things the fruit growers of California have to contend with, the general fruit prospect is the best for several years.

The Gooseberry.

EDITORS PRESS:—Seeing an account of the success of a party near Linden with the gooseberry, I thought I would ask some one to explain the cause of there being so few in this market. Are they subject to mildew? I have rich, dark mellow loam, very deep; can irrigate if necessary. Will some one give his experience in the southern counties, or anywhere else? A TRUTHSEEKER.

Spadra, Los Angeles Co.

FLORICULTURE.

How to Have Flowers Without Care.

EDITORS PRESS:—It often happens that those who really love flowers and long to have pretty gardens, go without them for lack of time to care for them properly. How often I have heard a tired, overworked woman say, "Well, I love flowers as well as any one, but I have put in plants time and again and they all die because I have no time to see to them. I've just given up trying to have a garden."

Often too it is the father, who, dearly loving them, tries fitfully before and after his hard day's work to get time to beautify his little garden plot. The work of digging, planting, and watering is hard on one coming home tired out, and, after a few trials, seeing all his work going for nothing and his plants dying for need of more care, he gets discouraged, loses interest, and says 'tis of no use to try to have a garden till he can get more time. As a usual thing that "time" never comes and he gets along year after year without.

Now as a usual thing the fault lies not so much in the lack of care, nor in any fault of the soil, as in the varieties of plants selected. Fuchsias, heliotropes, delicate roses, carnations, lilies, and all such flowers, will not grow and blossom well unless given a certain amount of care in the shape of cultivation, trimming, and careful watering; but there are many varieties of beautiful plants which will bloom the year round and give a lovely effect without water or care of any sort, after they are once well started. These are the sort to plant where one has little time to give to their cultivation, and if a careful selection is made, and taste used in arranging them, after the first few days' trouble of planting and starting them, little else is needed.

Weeds, of course, have a faculty of growing, and have to be rooted out, but even they are not much to be dreaded, in a small garden, if taken after a rain and while the ground is soft. Those who will afford the trifling cost of one of the convenient weeders to be bought at any hardware store, can reduce this task still further and do an astonishing amount of execution in an hour, so that a little time spent at this task once a month will keep a small garden plot in comparative good order.

Selection of Plants.

In the first place, don't try to have too many kinds; where you may succeed with two or three you may fail with a dozen, and a few well kept and constantly blooming plants are far better than a lot of straggling, poor ones.

Supposing, then, you have a small city lot or small country dooryard, and want to make it pretty. If your house completely fills it, you will have but a tiny garden in front, but even that, if planted rightly, may be very attractive. Fill the little place with various colored verbenas, petunias, or some such bedding plants, and, if you are inclined, tack some strong wires under the front windows, twist the other end firmly around pegs stuck in the ground, and plant sweet peas and nasturtiums, and let them run. Do not try in so small a space to have anything large or bushy, for it neither looks well itself nor allows anything else to do so. If you can have but a window-box and wish one which will take care of itself, use these same plants, putting, say, a purple verbena at one end, a pink at the other, and a white in the center. At either end fasten a wire or run it up on the side of your window for sweet peas and nasturtiums to climb upon. In this way and with scarcely any trouble but that of a little watering, you may have a window-box lovely with bloom and gorgeous in color 10 months out of 12.

If, however, you are more favored and have a lot which is not entirely filled by your house, you may have it beautiful with small expense and scarcely any work. Let us suppose, then, that you have a small yard and wish to make it pretty.

Don't attempt to put in a lawn of grass, for this at once demands tools for clipping it, and is enough to keep one person busy all the time trimming and weeding. If you must have it green around the house, put in white clover, which grows to a moderate hight, is always green and requires little care, except once in awhile to have the hose left to run on it. When in bloom it is a pretty sight, and it blooms most of the time. Then buy a paper of seeds of the double marigold and plant them as a border to your clover. These are brilliant rich orange, never fail to come up if the seed is good, no matter how hard the ground, and once up will luxuriate where other plants fail entirely. They bloom before they are fairly started and never stop till something happens along and kills them, for I never saw one die of its own accord. Nothing can be prettier as a border than these low bushy plants fairly loaded with yellow flowers.

If you wish still further to beautify your little plot of green, plant in it a shrub or two in the shape of a laurestinus, or something of that sort. These, when well started, grow rapidly, are tough and not easily broken, and are in bloom nearly the whole year round.

We will suppose, then, that you have a narrow flower-bed, running around the house, in which you desire to put some flowers. If you think you will have a little time and patience to train a couple of climbing roses over your front porch, put in the lovely white La Marque and pink Hermosa, both hardy and constant bloomers and of good substance in bud and flower.

If, however, you have any doubts as to their tacking up, leave them out, for roses trailing in the dirt, trampled and unsightly, are no particular ornament. Plant on either side of your porch a rosebush, say the Cels Multiflora and Jules Margotten. These are not the newest or rarest, but they are easily grown and a vigorous bush of either, constantly full of big blush or crimson sweet-scented buds, is a pretty sight.

For the balance of your bed and clear around your house, put in verbenas of different colors. You have no idea of their capabilities. A small verbena plant, such as you can buy at most florists' for 10 cents, will, in the course of six months, if it isn't used as a playground for the children, or a scratching-place for hens, cover four or five feet square with a solid mass of bloom. Not only this, but it continues blooming the year round, unless you have time enough to take the shears and cut it back to bare stalks to rest it once in awhile (a most beneficial performance); but if you don't it will give a profusion of lovely blossoms for months, and without water. A dozen varieties of verbenas ranging from white through all shades of pink, purple and red, make a mass of inconceivable brilliancy, and one who has never seen them growing finely cannot imagine how beautiful they are.

Geraniums.

These alone will be sufficient to make your little yard the envy of your neighbors; but if you still further wish to ornament it, or have a little more ground than what I have described, then put in geraniums, not the pelargoniums or "Lady Washingtons," as they are tender, but the common geraniums, single and double, which grow and bloom where nearly everything else refuses, and root in any soil. Few know how many shades may be gotten in these, or, in these shades, how much superior some varieties are to others in size, freedom of flowering and richness of color. If you are going to take up a collection from your neighbors' gardens, you will probably get a common variety of single and double scarlet, single pink salmon, and perhaps white. These are all very effective if arranged up against a fence where their brittle branches are not easily broken, and where their masses of color show well at a distance. If, however, you spend 10 or 15 cents apiece for a few kinds, you may select from all shades of pink, ranging from the palest blush to the deepest rose, a half-dozen shades of double and single salmon, double and single whites and every possible shade of red from scarlets of various softness or intensity to wine colors and crimsons, some of them most lovely. Beside these there are new tints constantly appearing, giving boundless variety to a garden. Plant some of these such as your taste selects, and intersperse with white marguerites. These never need care or trimming (except you wish to force blossoms out of season) and bloom a good part of the year without the least urging.

Vines.

If you desire vines, put in strong roots of honeysuckle, the scarlet trumpet creeper, the common blue clematis, or the scarlet passion vine. When first planted, run a strong wire from the ground (firmly twisted to a stake) to the top of whatever you wish to cover and leave it. Trust me, any of the vines I have named will, if given the least chance, soon find their spiral way up the wire and do their own training.

Laying Out Beds.

Perhaps, however, you wish, instead of grass, to bed your little yard down entirely in flower-plots and walks. If so, arrange the yard in the shape you desire (avoiding too large beds, which necessitate tramping on them to gather flowers), and fill your different plots not with standing bushes, and separate, distinct plants, but bedding plants which will cover the entire bed, give a mass of bloom, and most of which will grow so strongly as to aid in excluding the weeds, which would otherwise fill the bare spaces. For this purpose use the ever-useful verbena, white sweet allysium, nasturtium and petunias. These last are a source of constant satisfaction if grown in a mass, whether single or double. They are constant bloomers, very sweet-scented, and rapid and persistent growers. I have had people pass all my fine plants by to admire a common white single petunia, which was doing its best, and bloomed like a great bouquet.

In naming the plants suitable for such a garden, I have left entirely out of the question all varieties which are tender and need care to a certain extent.

These last are not suitable for a garden which cannot be well cultivated and carefully tended, and the care necessary to grow one of them would keep a dozen of the hardy plants I have recommended in fine bloom. These are sure to do well under any circumstances, give plenty of variety in color and shape, and are seldom or never out of bloom. From them one may at any season gather lovely bouquets or decorate most effectively, if desired, and they may be grown with so little labor that a garden of these flowers may, with truth, be said to be literally one in which flowers are grown without care.

GARDENER.

North Temescal, Alameda Co.

TO REMOVE VARNISH FROM PAINT.—To remove varnish without injuring paint, brush on spirits of ammonia or hartshorn, which softens the oil, allowing of its being rubbed off easily.

THE APIARY.

A Ventura County Bee-Ranch.

EDITORS PRESS:—On the western banks of the Sespe river, near the mouth of the mountain canyon of that stream, about three miles northeast of the Sespe depot of the coast extension of the S. P. R. R., is located the very fine apiary of R. Wilkin. We refer to the accompanying illustration as an accurate representation of the same. Mr. W. is an old Californian and apiarist, well informed in the science of bee-keeping, and considered first class authority. We write these notes partly from personal inspection of the premises, and partly from information kindly furnished us by Mr. W. while at his apiary a few days ago.

Mr. Wilkin located here to be out of the way of other bee men, if that were possible. He has at this place 450 colonies. His hives are the simplest form of the Langstroth. The brood-chamber contains about 1900 inches. The upper story is the same as the lower, and the two are interchangeable. The covers and the bottoms are the same, two inches longer than the hive, so that when at the bottom, the extra in length projecting furnishes a good lighting place for bees. The ends of these boards are furnished with cleats, rabbeted down so as to nail from top and end. When the covers become old, or in the least leaky, they may be changed to the bottom.

Foundation comb is used so as to exclude drone comb as much as possible. It is thought drones will, in any event, be numerous enough for all practical purposes. Mr. W. makes his own foundation comb, by means of well-perfected machinery.

The extracting house stands in the center of the apiary. This is for convenience of access, the rows of hives diverging from it in every direction. The house is a small frame, say 10 by 12 feet. In order to exclude bees, the door is so arranged that, upon passing, it always shuts to of itself, by assistance of a clock-spring. The frame of upper half of the walls, all around, is covered with wire cloth, which furnishes ample ventilation, making a very pleasant place for work, and a comfortably cool retreat during warmest weather. Grapevines, hanging in festoons around the eaves, during the fruiting season, present a most delightful picture.

The capping-box is 6 feet long, 2 feet deep, lined with tin. It has a false bottom of galvanized iron perforated, to drain the honey from the cappings.

The extracting tank is one of Mr. W.'s own getting up, is square, comes up against the end of capping-box so that the honey is easily drained from the capping-box through an opening leading into the tank. In capping, the honey-frame is rested upon an iron pivot, which makes it very easy turning from side to side.

An eight-framed comb revolving extractor is used. The honey flows from the extractor through a pipe to a

System of Evaporators.

These are four in number. Each is 12 feet long, 5 feet wide and 1 foot deep, holding about 5000 pounds honey; made of tin, and painted on the outside to prevent rust. A light wooden frame around the top of each evaporator helps to stiffen the sides and hold in place. Upon this rests a covering of muslin arched, which admits the heat of the sun, and yet serves to keep out insects, dust, etc. The muslin is supported by six cross-sticks elevated in the center and fastened at ends on to the wooden frame above sides of the evaporator.

It is necessary that the system occupy slanting ground, so that the honey may flow from the bottom of the evaporator next the extracting tank and in at the top of the next in order, and so on down through the series. From the lowest evaporator the honey flows into a 14,000-pound tank of galvanized iron. This may be of other material, such as wood lined with tin, etc. From this the honey is drawn into tin cans for shipment.

In the process of evaporation, any watery substance that may be mixed with the honey is removed, and the honey becomes thick and ropy. This seems to prevent, to a considerable extent, the tendency to granulation. Mr. W. has about five tons stored away in tin cans which was thus treated before canning, and which is now apparently as liquid as when first evaporated a year ago.

When first-class honey begins to flow, it is important to throw out all dark or second-rate honey so as to have the qualities distinct. This work should be done early in the season, so as to be ready for the new flow, as it is important to get the best honey on to the market early.

In case of an emergency in any season, these evaporators may be used for storing honey. They with the large tank have a combined capacity of about 34,000 pounds. One of these evaporators turned over for a roof, temporarily boarded up at sides, furnishes a good winter store for the cans of honey remaining on hand.

Mr. W. has been shipping to England. He has, within the past four or five years, shipped to one firm there, in one and two-pound cans, sufficient to realize from the sale about $40,000.

Heretofore, perhaps, at least nine-tenths of the honey of this county has been extracted, but there is now a tendency to give more attention to comb honey.

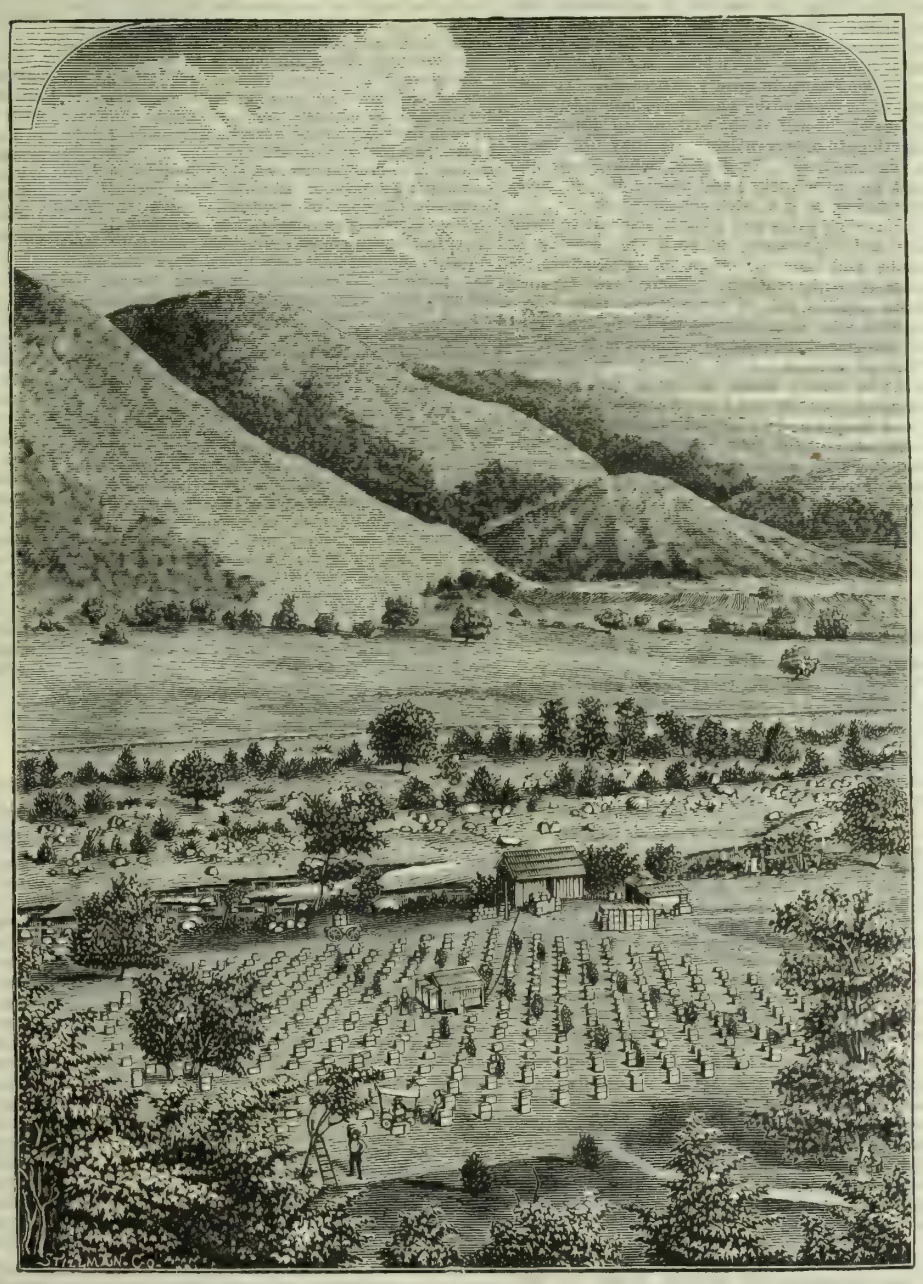
According to the assessors' books there are about 18,000 colonies of bees in this comparatively small county. These yielded last year, on the average, about 200 pounds of honey to the hive, making, say, about 1800 tons.

Until within the three years last past, foul brood existed in the county to a considerable extent, but since that time a County Foul Brood Inspector, appointed under a recent law, has condemned, and destroyed by burning, about 300 hives of bees. By this means the disease is now being kept in check, while it is reported that in some of the neighboring counties its ravages are considerable.

It is thought that within a radius of two miles from this apiary, there are now about 1800 colonies of bees belonging to various persons, and generally doing well. This shows the great abundance of bee forage in the county. This apiary last year produced 180 pounds of honey per hive, average. They would, of course, still do better if there were fewer in apiary or neighborhood. This year it is not expected they will do so well, as the flowers, although blooming profusely everywhere, yet seem to be wanting in abundance of honey-yielding properties.

The leading honey-producing plants in this neighborhood are alfileria, phacelia and wild mustard, which bloom early and give a start in the spring and during the breeding season. Then comes purple sage, then white sage and "wild alfalfa"—this last a plant of the broom family. These yield the main portion of the choice marketable honey sent away from here every season. The Tijon or bearberry and Sumac produce a fair honey. These are both shrubs of rather ornamental growth, the first well known in most timbered or mountainous parts of California for its dark serrated leaves and brightly scarlet berries, extensively used in many places in ornamentation at Christmas festivals, etc. Nightshade furnishes a poorer forage all the year round, and bees work on it in winter. There are, in the neighborhood, many other honey-yielding plants generally considered of minor importance. There is, at times, in certain seasons, an abundant supply of the famous white sage, which has been the means of making the attractive and delicious white honey of Southern California so well known in Eastern markets.

McD.



BEE RANCH OF R. WILKIN, VENTURA COUNTY, CAL.

THE BOTANIST.

The Great Brome Grass.

[Written for the RURAL PRESS by C. L. ANDERSON, M. D.]

In the early days of California one of the chief grasses of our county (Santa Cruz) was the wild oats, *Avena fatua*. It was an excellent forage grass. Now it has almost disappeared from our lands, and its place is chiefly taken by two other grasses, the Great Brome (*Bromus maximus*) and a small Fescue (*Festuca myurus*). The Brome, however, seems to monopolize everything. It is nearly everywhere, from the bottom-lands to the mountain summits. Have we been benefited by the exchange?

The Great Brome comes from the plains of Morocco—the land of that famous leather morocco. In all probability it traveled through Spain and thus reached California. It found a soil and climate eminently well suited to the rapid and abundant growth. About 100 years ago Desfontaines, a French botanist, described this Brome. Twenty years ago it was almost a stranger on this shore. Its reputation is not good, but, I trust, without good reason. It has been traduced and badly used. Even one of our recent botanists, E. L. Greene, says that "not even the goats are fond of it." Now what a goat would refuse in the way of food must be poor indeed!

I have better testimony to offer. I know that cattle and horses do eat it with a relish, and grow fat on it. While they leave the coarse stem of the wild oats merely eating the top, they will eat this Brome to the ground, and either green or dried, will consume the whole plant. It may be that everybody's cattle and horses will not do this. That is because they do not know what is good for them. Like most other grasses, when this Brome becomes old and dry, is not so good; and the long beard, or awn, is unpleasant. But there is a large, nutritious grain, perhaps larger than a grain of oats or rye, and late in the season, when all the grasses are dry, stock will gather this grain from the ground where it has fallen, and eat it.

When cut in the flower the Great Brome answers well for hay, and is worth more per ton than half the hay that comes into the market—not excepting the wild oats hay that we ship from San Benito county to Santa Cruz, in such large quantities. And when we consider the troublesome beards that surround the grain, I may truly say that they are *no worse* than bearded barley or wild oats.

Now while I am not quite in favor of turning out our wheat, barley, oats, etc., and sowing our fields with the Great Brome, I think it well to do justice to this stranger which has come to our shore evidently to stay, and which so easily and persistently makes itself at home in all the waste places.

The Brome is with us without our invitation. It is in the roadsides and fencesides, plains, hillsides, woodlands and mountain summits. It is far superior to the wild barleys, which, alas! are too common, and the hundred other weeds introduced, and it is really deserving of a good work. It is self-invited, a stowaway in some of the later ships from Spain. Nevertheless, may we not hope that it will prove an angel unawares?

In order that your readers may recognize this grass by name, I append a description: It is an annual, and one of the first grasses to start with the early rains. The stems are from 12 to 40 inches in length, not erect, but spreading. The leaves are coarse compared with other grasses; soft, hairy, about one-fourth of an inch in width. The head is about 4 to 10 inches in length, with wide-spreading branches, like the wild oats, only more so. The beards (awns) are about two inches in length, with short, upward barbs, in about four rows. It is rather dark-green in color, and each head (panicle) carries about 20 to 100 grains; so that when ripe the grass droops and as it matures becomes of a dark, purple-brown color, giving the field or patch where it grows a peculiar rusty look.

Santa Cruz, Cal.

THE STOCK YARD.

Our Future in Beef.

A writer for the *Sagebrush Stockman* signing himself G. M. D., of Sacramento, gives the following interesting sketch: I wonder if men now engaged in the business of raising beef cattle, or those contemplating engaging in that enterprise on the Pacific Coast, ever dream of the real possibilities in the direction of success and profit in the immediate future. I am engaged in the cattle business, and have naturally given the subject of future developments much study; with the result that I am inclined to take a hopeful view of the prospect.

As it appears to me, three prominent elements are at work to bring good, remunerative prices for beef here. They are: First—The fact that while during the past 10 years or so on this coast the home consumption, and consequent demand, has been about equal to the supply, the condition is now rapidly changing, for we are now receiving, and will continue for a number of years to receive, an enormous immigration of beef-eaters from the East, who know what good beef is, and will have it at any reasonable cost. Second—Our supply is not making a corresponding increase, and I very much doubt if it can be brought up to the standard, for with rare exceptions our ranges are already overstocked, and the area of the ranges being steadily lessened by the encroachments of those agriculturally inclined, consequently our annual beef product can only be increased by increasing the general feed supply of alfalfa, beets, other root crops, etc., on our fertile and water-blessed lands, and an approach, in a measure, toward Eastern methods of cattle-raising and feeding; for let it be remembered that vast as are the annual range products of the United States, they constitute but a small proportion of the beef product of the country. Third—We can expect to draw no beef supply from the country east of the western slope of the Rocky mountains, for they have now got to the point where their demand is slowly but surely exceeding their supply, a state of affairs hastened by the enormous loss of cattle from cold and drouth on the Western and Southern ranges during the last three years, supplemented by the great and steadily increasing immigration from Europe of people who soon learn to eat beef, although, for pecuniary reasons, largely denied the luxury abroad; and these people are rapidly settling upon and cultivating the broad cattle ranges, to the detriment of that interest, for the present at least.

Are not these three vital reasons for the belief that the production of good beef will prove in the near future a business yielding good returns? Few know the extent of the recent ravages wrought on Western and Southern ranges by extremes of weather and drouth. The writer of this article saw many, many thousand head of cows, heifers and young immature steers rushed upon the market and sold at the Chicago stock yards last fall, from the ranges, chiefly from Montana and Texas. And why sold, you ask, when they were just the class of cattle needed on the ranges? They were sold to save them from certain death by starvation, and when the thousand or more per day were run in, of course the price received was ruinous, but better than nothing, and death to cattle means nothing to the owner.

Now, how can the coming demand for beef on this coast be met? How can the quality be improved?

[This branch of the subject will be considered at another time.—EDS. PRESS.]

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Col. Irish to the Grangers.

The telegraph spoke of Col. Irish's address at the Hock Farm picnic, week before last, as interesting and eloquent. Later and lengthier reports, by mail, confirm the earlier account. The *Sutter Farmer* says: "It was one of the most practical, homespun and eloquent speeches we have ever listened to on this or any other occasion. To give even a faint idea of the depth and breadth of this speech, clothed in the eloquent, forcible and every-day talk, is beyond our power." When asked for his manuscript, for publication, he replied that he had not written anything.

He said at the outset that he had been invited there to teach, but found he should take lessons instead. He was charmed with what he had seen during the morning hours, the magnificent wheatfields, the elegant, solid and imposing rural dwellings, the evidence of horticultural possibilities as presented in the numerous orchards and vineyards, and last, but not least, this magnificent grove of stately fig trees, so extensive as to enable Adam and Eve, were they here, to set up a wholesale clothing establishment. He pronounced it the garden spot of the State—a fact not dreamed of by one in fifty of the people. He dwelt at length on the subject of individual ownership of the soil, saying that all should strive to own the land they till, and that the highest type of manhood is produced and springs from the ownership and occupancy of the soil.

It was the tiller of the soil that made this country so valuable. The calling of the farmer is vastly different from that of all others; without him there would not be any life. The mind of man can conceive of a time when the physician will no longer be needed, because the health of the people will be good; when the services of the lawyer and judge may be dispensed with, because the moral standing of communities may be improved to such an extent that the minions of the law will be a thing of the past. But no mind can conceive of the retirement of the farmer, who is a physical necessity, and will stand by his plow until the judgment day. The farmer supplies the means of existence, and statesmen must recognize his rights—they are transcendently above the rights of all other interests, therefore public regulations must care for them, without the prayers that are now generally needed in the halls of legislation.

He referred to a question said to be local, but in reality as broad as the State. Owing to lack of information as to the extent of the country destroyed and imperiled, the people of this region have gained the reputation of being unreasonable, vindictive, and exorbitant; their country and cause are belittled, and the destroyer's golden era magnified. "Why, in the barrooms of San Francisco, the diamond-decked lemon-squeezer mournfully tells of the times when mining was in full blast, before the stoppage of one particular branch, and argues that the farming industry ought to be done away with, because farmers are not in the habit of throwing up $20 pieces for a drink and demanding no change. It is such talk that does us most injury, and should be counteracted by a greater effort at publicity, by publishing to the world the extent of our country and resources, by bringing the merchants, business men and representative public men to view the situation as he had seen it." The speaker said we had won a great battle, and must in the near future triumph over every obstacle, and when the dark clouds of adversity shall have passed away and it be known that we are absolutely safe, and that the levees that stand to-day between us and ruin shall of their own accord rise above the deepening channels, the most active imagination must fail to foresee the brilliancy of the future.

Diversified farming is the thing that every intelligent owner should study, for the days of special farming are a thing of the past. If every farmer raised wheat there would be nothing but wheat for sale, and wheat is not all that is conducive to good health. Stock-growing should receive more attention here. The soil must be tilled by the owners, or in time a question like that existing in the British domain would arise. The greatest farmers' organization—the Grange—pre-eminently represents individual home ownership, and for that reason its councils are the best. There is forming in this country a political organization, which, though in an embryotic state, is teaching its tenets in such a way that many are being led to believe they will in course of time have the right to confiscate the lands of large owners. He looked to the farmers and Grangers to forestall and turn away this growing menace, for theirs is a class of law, order and stability without which governments cannot exist.

The *Farmer* and the Marysville *Appeal* unite in testifying that he held his large audience spellbound and was liberally applauded, and the latter witness adds that the speech was considered the best that has been delivered at any of the Grangers' annual picnics.

SACRAMENTO COUNTY POMONA GRANGE is to hold a special meeting at Galt, by invitation of the local Grange, Saturday, June 4th, at 10 A. M.

Conservative Farmers — By a Farmer.

Farmers, as a class, are rated somewhat conservative.

The ownership of soil in fee simple, with the privilege of holding more than he needs, promotes conservatism. He looks upon high prices for produce and low wages as in his interest. His radicalism usually crops out in resolutions against monopolistic transportation extortion, and high rates of interest on mortgages. The railroad kings and bankers tread upon his immediate corns. His conservatism on the one hand and his radicalism on the other are owing to closely surrounding conditions. Touch a man where he lives and we wake him up. He opens out or closes in in accordance with the pressure or resistance.

But there are classes of conservatism among farmers.

To acquire and hold against the use of others more land than one can use is aggressive conservatism. To hold the land for a rise in price is a dogged conservatism. To hold it to collect rental from other men's labor and enterprise is iordly conservatism mildly expressed. To hold land to be worked by cheapened labor, to build up wealth for self at the expense of others, is extortionate conservatism. To pay big usury on big mortgages to drones, while man and beast are overworked and poorly fed to meet their demands, is slavish conservatism.

To use big gains and a bank account to swell one's self-importance, to seek the society of nabobs and ape the ways of aristocrats, is pompous conservatism. There are farmers whose incomes are of more value than home comforts who count success in life by the cent per cent standard; miserable conservatives!

But all farmers are not members of any conservative class. Many of them are nature's noblemen, men of broad mind, open heart and honest purpose—radical from principle, just by virtue of inherent good—cultivated gentlemen, home-builders, supporters of wholesome laws, active in reforms, and ever ready to oppose the wrong and aid the right.—*S. Harris Herring, in Swinton's Paper.*

San Joaquin Pomona Grange.

The Pomona Grange in session at Lodi, May 25th, passed the following without a dissenting voice:

WHEREAS, The Boards of Trade of this county have encouraged Pomona Grange to make an exhibit this year,

Resolved, That this Grange ascertain what can be done in this direction, and report the same to a meeting of the Grange to be held in Lodi, Wednesday, June 15, 1887.

Resolved, That all persons disposed to foster this movement by giving cereals, fruits or money, make it known as soon as possible to any one of the following committee: J. D. Huffman, Lodi; G. H. Ashley, E. Fiske and D. Sheen, Woodbridge; S. C. Waters, Clements; J. L. Beecher, Jr., Stockton. Be it further

Resolved, That it is the sense and request of this body that the Hon. Marion Biggs, Congressman-elect of this Congressional district, use all honorable means to oppose the repeal of, or an amendment to, the fourth section of the Interstate Commerce Bill, passed at the last session of the National Congress.

The Lodi *Sentinel* adds that the above resolutions were adopted at an unusually large meeting, and consequently convey the sentiments of the Grangers. They are doing a good thing in thus endeavoring to obtain a suitable exhibit of the products of this county at the Mechanics' Fair this fall, in S. F., and should receive the support of every property-holder in the county.

WILL CONSULT THE GRANGERS.—A meeting of the committee of citizens chosen to take measures to assist in making the Mechanics' Institute Fair of 1887 a grand success, and in there displaying the great resources of this State for the enlightenment of visitors, was held on Tuesday last. The following gentlemen were present: W. T. Garratt, A. S. Halidie, J. Mervyn Donahue, P. B. Cornwall, B. F. Flint and William P. Stout. The committee organized by electing A. J. Bryant, president; W. T. Garratt, vice-president, and W. P. Stout, secretary *pro tem.* Mr. Flint thought that the Grangers' Business Association of California should have a representation upon the committee, and the secretary was instructed to communicate with that body, and ask it to select one of their members to act with the committee. Capt. J. H. Drummond, of Glen Ellen, was added to the committee, after which the meeting adjourned.

SOCIAL AT MARTINEZ.—The *Gazette* says that after an interval of more than ordinary length, another of those attractive socials for which the Grangers are noted came off on Saturday evening, May 21st. The hall was well filled, and the young people entered into the enjoyment with zest and spirit. During the evening Misses Lulu Frazer and Evelyn Williams sang a duet, Mrs. W. B. Thomas gave a humorous recitation, and Miss Maggie Williams favored the company with a solo. At the midnight hour, as usual, the party was at an end, and all left with renewed conviction that Grangers' socials are hard to surpass.

ST. HELENA GRANGE has passed resolutions of condolence, in view of the recent death of Willis P. Pinkham, a brother every way worthy of confidence and esteem.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

THE strongest efforts are being made through the press and by taking advantage of technicalities in the Act to bring the Interstate Commerce law into disrepute, and so influence public sentiment against it that the attempts evidently to be made in the next Congress to have it repealed may be entirely successful. Farmers who more than all others helped to bring about this law, and who above all others are interested in its enforcement, should not be misled by false statements or let evil overcome good because of their apathy or want of knowledge in this matter. The very essence of the Interstate Commerce law is *equality*, anti-discrimination, "a fair field and no favor," equal charges for equal services, equality in *persons* and in *places*. No higher charges for a *short* than for a *long* haul; no pooling of earnings, no free passes. We hear of petitions from railroads and those who have been enjoying *unequal* advantages against portions of the law; but so far there are more petitions representing more persons and interests *against* any repeal of parts or all of the law. To-day we read the telegrams that tell of the failure of two large barbed-wire manufacturing establishments in Chicago, to the amount of $755 000, and "the failure is chiefly attributable to the Interstate Commerce Act." If special rates of freight and undue advantages have been given firms, by which they became monopolies, and could crush out other firms in the same line of business who had *not* these favors, as with the Standard Oil Co., whose freight rebates have been announced in 18 months' time to amount to $10,000,000, and who have crushed out hundreds of other oil refineries *because* of these *special* favors—and they cannot compete on an *equal* footing with other firms—they must fail. And it was to suit just such cases that this law was made and passed. "Let *justice* be done though the heavens fall." Our forefathers said in the Declaration of Independence, "all men should have an *equal* chance in life, liberty, and the pursuit of happiness." That principle is the foundation of all our Government, and it is the chief corner-stone of the Interstate Commerce law.

"WE have a great work before us, and it is a calling that any true American should be proud of, for this country must be saved for the people, and the people must do it. Let us put on our whole armor and raise our own statesmen, who will formulate our laws in the interest of the whole people, and see that the land is restored to actual settlers, to be the homes of our people, not aliens; elect our officers, not appoint them; keep our water-courses free, and control public carriers, and tax the people only for public purposes, and no more than is necessary. Then we will begin to financier our business, and can discharge at least some of the volunteered service of corporations."—*H. E. Hayes, Lecturer Oregon State Grange.*

"SPECULATION in futures is of such a degrading and dangerous character that laws which apply to gambling should with equal force be made to apply to these nefarious trades." True enough, and farmers are coming to understand that the prices of the great staple crops of this country are regulated more by these gamblers than by the laws of supply and demand. The Grange has already taken hold of this subject and it will be followed up.

"'LET your light so shine that others may see your good works.'" Attend strictly to your Grange meetings. Study how you may benefit the Grange, and not how the Grange will benefit you. Work for a purpose. Be zealous in the establishment of Grange schools. Keep away from the courthouse. As long as men have errors they will have difficulties. Adjust them in the Grange—men have to decide them some way—then why not take the easiest, cheapest and justest plan? There never was a better time to advance the work of the Grange. All over the State there is an unrest among the farmers and laboring classes. All other classes and professions, except the farmer, are organizing with wonderful rapidity. He needs it more and feels it most, yet stands apart. This thing can't remain long. With the great moneyed powers and laboring classes antagonizing each other like an upper and nether millstone, the farmer will be doomed to abject ruin."—*W. R. Williams, Master North Carolina State Grange.*

"NEIGHBORHOODS where Grangers and farmers' clubs flourish are characterized by better farming, as well as a more friendly and social spirit among the people. No one man does or can know everything about farming, any more than about other things. Each member contributes his ideas, and the stock of information about the best farm methods is largely increased. Even those who hold aloof are brought in, however unwillingly. Keen observers note the improvement they are secretly making, or if their farming shows none of these, they point to it as a horrible example, and as a warning of the bad effects of neither learning themselves nor imparting their information to others. Some farmers who have enjoyed the benefits of the Grange for many years say they would not live in a neighborhood or town where no Grange exists."—*American Cultivator.*

THE Master of the Indiana State Grange has appointed Saturday, June 4th, as "Children's Day" among the Patrons of that State. In the young folks are centered the hopes of the family, the Grange and the nation; none too soon can they now receive lessons that tend to develop a higher and better manhood and womanhood that will "help them in loving the good, the beautiful, the true, the home, the farm, the Grange and their native land." Yes, we open the doors and bid them welcome; welcome to our Grange halls, welcome to our social gatherings, welcome to all our hopes and efforts for the better life, welcome "for the good of our Order, our country and mankind."

PROGRESS.—Three more new Granges, two in Mass. and one in Penn.

DEPUTY National Lecturer, J. H. Brigham, is lecturing in Kentucky, and D. H. Thing is in Maryland. The Lecturer of the National Grange is in West Virginia. X. X. Chartters, Master of the Virginia State Grange, is lecturing among the Granges of his State and with good effect.

DANVILLE GRANGE gives a Harvest Feast today. It is one of the best Granges in the State, and will, no doubt, report a good meeting.

EDEN GRANGE had a good Harvest Feast, as usual, on Saturday last, when five applicants received the fifth degree. Judge Russell, who has steadily gained health, was there, and addressed the Grange to the pleasure of a good number present. The Judge speaks well of the manner in which the work is being done by the officers of Eden. Judge Blackwood and Brother Dennis both spoke in favor of the cause of temperance in their earnest, emphatic way. Brother Kelsey and Sisters Brooks and Kinney were present from Temescal Grange.

THE LATE D. WYATT AIKEN.—The National Lecturer's column in the RURAL of April 30th held a brief but feeling eulogy on Hon. D. Wyatt Aiken, who died at his home in Cokesbury, S. C., April 6, 1887. By request, and with the approval of Hon. Put Darden, M. N. G., Secretary Trimble has prepared a somewhat extended tribute to his memory as an early, able and constant advocate of Grange principles, a man of exalted moral worth and a devout and consistent Christian.

NORTH BUTTE GRANGE digressed from the current methods of celebrating the vernal season by decorating the graves of the departed with floral offerings. This is a movement that will gain strength in practice. No more appropriate tribute could be thought of to the memory of departed friends, and to keep green the old love and esteem. This movement was inaugurated yesterday near Pennington.—*Sutter Farmer, May 20th.*

TULARE GRANGE, thanks to the enthusiasm and persuasive industry of Bro. Maples and other local officers, aided by Bro. Overhiser, has 25 fresh applications for membership. We commend their judgment in concentrating their force in one strong Grange, instead of dividing it between two organizations.

NORTH BUTTE GRANGE held memorial services, May 19th, and strewed flowers on the graves, not of Patrons only, but of all in the cemetery — even the poorest and lowliest—and the members separated with sympathies deepened and strengthened by the tender observance.

A GRANGE HALL FOR SAN JOSE.—At a meeting of the Horticultural Hall Association last Saturday, it was voted to construct an additional hall for the use of the San Jose Grange, the latter agreeing to lease it for 20 years.

Beware of Sparks!

A wide-spread mountain fire was reported last week as raging on the east side of Napa valley, between St. Helena and Calistoga.

Also, the fence inclosing H. Barnhart's land, along the line of the railroad south of Lodi, took fire—it is supposed from the sparks dropped by an engine—and was partially destroyed, though the grain was still too green to be much injured.

Saturday night, at Kentucky Ranch, 15 miles from Marysville, several hundred acres of hay, some standing grain, barns and much fence, were consumed, to the value of thousands of dollars.

Sunday afternoon fire was discovered on the grazing fields at J. Traynor's sheep-ranch, nine miles north of the same city. Before it could be stopped it reached the grain field and destroyed 17 acres. Only the combined efforts of several large crews of farm hands from different ranches saved many thousand acres of growing grain. Several of the men were nearly stifled, and required the services of a physician.

These occurrences remind us that the season is again at hand when field and forest blazes are wont to destroy great values. It behooves every one, young and old, to beware of kindling wayside fires, or dropping matches or cigars about the ranch or along the road. Probably nine-tenths of all the disastrous conflagrations of harvest-time result from the little carelessnesses named above. "Behold how great a fire a little matter kindleth," and take care of that same little matter.

THE NEWCASTLE APRICOT.—We received June 1st from C. M. Silva & Son, of Newcastle, Placer county, a box of a new seedling early apricot which they have been testing since 1881, and have secured a stock of trees which they will offer this fall. In their growing, the new apricot, which they name the "Newcastle," has proved quite as early as the Pringle, and we can pronounce from the fruit submitted to us that it is much better than the Pringle in size, color and flavor. The richness of flavor is especially noticeable. It has a deliciousness which has generally to be looked for in the luscious varieties which ripen much later. It seems to us that the variety has a great future before it. Messrs. Silva & Son write us that the tree has borne regularly since 1881.

A LONELY FLOWER.—On Mount Whitney, the highest mountain in California, at a level of 14,000 feet above the sea and 1500 feet above the timber line, where there is no soil and no moisture save snow, and hail, and ice, there grows a little flower shaped like a bell-flower, gaudy in colors of red, purple, and blue. It is called Jacob's ladder, and its fragrance partakes of the white jasmine. It blooms alone, for it not only has no floral associates, but there is no creature, not even bird or insect, to keep it company.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

OLIVE CULTURE.—Oroville *Register:* Olive-growing is yet in its infancy in Butte, though large and thrifty trees have been in bearing here for 10 years. The natural home of the olive is in the foothills, and splendid trees may be seen in full bearing at Mrs. Z. M. Sexton's, Joe Gardella's and at George Wallet's. The oil made from these trees is of a fine quality, and it shows what may be expected from the olive here in the future. The attention of fruit-growers has only recently been called to the olive, but during the past year a large number of trees have been planted, John C. Gray alone putting out 4500 trees a few miles east of Oroville. The olive flourishes best in a dry soil, the hill-land oil selling for a higher price than low-land oil.

THE BEE BUSINESS.—L. N. Eyler, who has had a good deal of experience with bees, tells us that since the orange began to be planted so extensively in this vicinity the honey made is very fine, and appears to be flavored with the orange blossoms. The bees begin to work here about the 1st of March and continue till the 1st of January. Each hive will produce about 80 pounds of honey, worth from 15 to 20 cents a pound. The patent hive he thinks too warm for this region, and makes his own, which he believes better suited to the climate. He is confident there is no better region in the world for honey. Along Feather river the wild coffee is very abundant, and this is a favorite plant with the bees; but they prefer the orange to all other blossoms. Mr. Eyler says that all depends on taking care of the bees, but if they are properly treated they will be a success here beyond all doubt.

Contra Costa.

THRIFTY VINES.—*Gazette*, May 28: There is no part of the State where vines are more exempt from injury by frost, or suffer less from disease or insect enemies, than in Contra Costa. Among the many vineyards notable for thriftiness is that of Mr. Thomas Griffin, near Martinez, which is deserving of mention. He has 20 acres of Black Ferrera, three years old, of luxuriant growth, literally loaded with large clusters of grapes—more than the canes can sustain. The prolific appearance of this young vineyard is noticeable, even in this favored clime.

Inyo.

OWEN'S VALLEY ITEMS.—*Independent*, May 28: A large force of men and horses, with suitable machinery, are now at work on the upper end of the big canal for the irrigation district. The citizens of Lone Pine are building a flume to carry water into the town for irrigating purposes. A large quantity of water has been allowed to go to waste above the town which will be utilized by means of this flume....The usual visitation of sheep has set in. About half a million come to the valley each year....The first cutting of alfalfa is nearly ready around Independence; the crop will be a heavy one.... There will be ripe peaches at Independence about the middle of June. Prune trees are very heavily loaded; so are apricots and nectarines.

Kern.

MATERIAL FOR FENCING.—*Kern Co. Echo:* Our readers will remember an article some time ago on the growth of bamboo for fencing. C. A. Maul has planted out 200 roots of this plant, and expects to raise his own fencing. The growth of this bamboo reaches a hight of from 30 to 40 feet each year, is very straight, and when dry, hard and strong. The stock will be cut into suitable lengths for pickets and woven with wires into a neat, strong, durable, rabbit-proof and stock-proof fence. Parties who have been raising it for some time assert that an acre, well set to roots, will produce pickets enough each year to make six miles of fence. Allowing one-half for enthusiasm, and there is still something in it.

Los Angeles.

GUM TREES FOR FIREWOOD.—Anaheim *Gazette:* Postmaster Gardiner believes in growing trees for fuel, and is now planting five acres as an addition to his present grove. The fuel problem is going to be a serious one in the not distant future, and more attention should be paid to planting such rapid-growing trees as the eucalyptus.

POMOLOGICAL MEETING.—Orange *Tribune:* The next meeting (July 1st) of the Pomological Society, at Orange, promises a larger attendance than usual. We are authorized to announce that papers will be read by Geo. Rice, Sec. of the Orange-Growers' Protective Union, on "Oranges for Profit," and by Milton Thomas, the veteran nurseryman, on "The Past, Present, and Future of Fruit-growing in Southern California." E. Edson Smith will tell how to make a 10-acre fruit ranch support a family. A. F. Kercheval will sing "Apples of Gold in Pictures of Silver." The reading of each paper will be followed by five-minute speeches by the members. Good music will diversify the exercises, and Orange will entertain her guests with the best the season affords.

San Bernardino.

CITRUS FRUIT IN COLD STORAGE.—*Press and Horticulturist*, May 28: Mr. Stowe reports 15,000 boxes of oranges and about 2000 boxes of lemons in good condition at the Cold Storage Works in this city. This fruit was placed in cold storage from one to three months ago, and is to-day as perfect as when taken from the orchard. It has decreased in bulk somewhat, but is still of perfect flavor and condition. This is all Riverside fruit. The lemons will be placed on the market during June and July, at good figures, and the time is now at hand when a lemon orchard will be one of the best properties in Southern California. There are about 200 boxes of the Riverside Washington Navels now on hand, which are being sold for $8 per box. There is more of this fruit in the Chicago market, and the market reports from that city quoting Navel oranges at $4 per box refer to the Australian Navels from the coast valleys.

ORANGE SHIPMENTS.—Following is a review of the orange shipments from Riverside for the current season:

	Cars.	Boxes.
December shipments	11	3,204
January shipments	31	8,907
February shipments	49	13,996
March shipments	84	23,918
April shipments	71	20,214
May shipments	72	20,559
Total to date	318	90,798

SHIPMENTS IN FORMER YEARS.

	Carloads.
Crop of 1880-81	15
Crop of 1881-82	42
Crop of 1882-83	45
Crop of 1883-84	50
Crop of 1884-85	456
Crop of 1885-86	506

San Luis Obispo.

RESULT OF GOOD FARMING.—Estrella Cor. *Tribune:* Now this is a pretty dry year. Rains have been light and not very well placed. It's a sort of a test year with a good many of us, comparatively new-comers. Probably there's a larger acreage of grain sowed in the eastern part of the county than ever before—I heard it estimated as double—and the chances are that most of it won't yield more than half a crop. As far as I can see, there ought not to have been a failure anywhere. I don't think I am any better situated than the majority, but my grain stands waist high and promises a full crop. But then I put in on summer-fallowed land, plowed deep and cross-plowed. I am encouraged to think that, take an average year, or take a year like the present one that is below the average for rain, I can count on a crop every time if the ground is properly worked. Fruits and vines do finely, too, but they want to be well cared for. You can't stick a young tree in the ground and leave it to work its own way. My little orchard of five acres is two years old and is doing first-rate, except where I failed to attend to it. I think anything can be raised here 'most any year, if we know how and do our share.

Santa Barbara.

A GIANT VINE.—*Independent*, May 21: There is a grapevine in Carpinteria, the property of Jacob Wilson, that excels the famous Montecito vine that was forwarded in 1876 to the Centennial. At the butt it measures 5 feet 10 inches, and five feet from the ground 5 feet 2 inches. It is of the Mission variety, and is reputed to be the largest grapevine in the world. It is supported by a trellis, covering an area of ground almost 100 feet square. Mr. Wilson informed us that the vine, two years ago, produced four tons of grapes.

UP THE SANTA MARIA VALLEY.—*Times*, May 28: The Santa Maria mesa, on the north side of the Sisquoc river, is entirely covered with wheat and barley, and the quality will certainly be as good as usual; thousands of acres can be seen which will produce from 15 to 30 sacks of grain to the acre. The mesa is principally sown to wheat, with here and there a small tract of barley, which is fast ripening. The grain on the mesa joining the valley on the south will produce a good crop of an excellent quality. The extensive Sisquoc orchard is heavily laden with many kinds of choice fruits, and all the orchards we had an opportunity of visiting indicate the heaviest crops they have ever produced. The 40 acres of English walnuts just set out by Joseph Kaiser seem to be growing nicely. The trees are choice and set out regularly and perfectly; the ground is well cultivated, and everything connected therewith attests the enterprise and business method of our pioneer in this industry. How rapid the change, that has transformed this valley from an open plain, with only an adobe ranch-house here and there, grazed over by thousands of half-tamed cattle and horses, to one of the richest agricultural and fruit belts in California, the home of hundreds of enterprising farmers.

Santa Clara.

SUCCESSFUL DAIRYING.—*Free Lance*, May 20: The ranch of G. J. Jarvis, at San Felipe, contains 80 acres in the heart of the artesian belt. The land is no better or worse than that surrounding it, which is also used mainly for dairying purposes. The main advantage it possesses over the average California ranch is having plenty of artesian water. About 70 acres are used for dairying, the remainder being used for orchard and garden purposes. The 70 acres are divided into fields of various sizes, and sown in alfalfa. When one field is fed down, the cattle are turned into the next, and water is run on to the field they have left. Thus a regular succession is kept up, the stock averaging two or three weeks' stay in each field. On this alfalfa, Mr. Jarvis supports 40 head of cattle and horses, and cuts several thousand tons of hay. Last month, from 25 milch cows, he got 26,000 pounds of milk, which, taken to the cheese factory, yielded about 2700 pounds of first quality cheese, netting him about $250. There are several other dairy ranches in San Felipe as productive as that of Mr. Jarvis, but the number of such ought to be largely increased. There is plenty of land in this district at present almost going to waste, which ought to be yielding good returns to enterprising owners.

A HUGE CATAMOUNT.—Gilroy *Advocate:* A lion measuring nine feet two inches from head to tail was killed recently by Ed. Wilson on his father's ranch in the eastern range near the Gilroy Hot Springs. This is the largest lion ever brought low by the rifle in these parts. Its weight without hide or entrails was 150 pounds.

Santa Cruz.

MOVING A MAGNOLIA.—*Courier-Item:* The fine magnolia tree, growing on the lot on Pacific avenue lately purchased by Mr. Degener, was being taken up Tuesday with four feet square of the soil and root, which were boxed in on all sides and bottom. The tree, which is eight inches in diameter at the ground and nearly 20 feet in hight, will be raised with jack-screws, placed on trucks, and reset in the courthouse square. Sheriff Dakan is taking great interest in saving his handsome tree and placing it where it will be an ornament. The tree is at least 15 years old, is the largest of its kind in the city, and bears, at the time of its removal, more than a hundred buds and blossoms.

Shasta.

WISE INDUSTRY WINS.—*Index:* Three years ago Mr. and Mrs. Tarlton bought 160 acres of redland two miles north of Cottonwood. They examined the natural vegetation and general features of this locality and decided to put out an orchard and vineyard. Some of their neighbors urgently advised them not to try the experiment, for they would surely fail; but Mr. T. went on with his suicidal work. The result is, he has one of the nicest places north of Sacramento. Every tree, vine, shrub or flower they put into the soil has grown better than they expected. The front yard is filled with flowering plants and shrubs. In the orchard are all kinds of trees, from the hardy apple to the tender apricot, loaded with fruit. Mr. T. has been through the orchard and pulled off more than half the fruit. (The trees are but three years old, and it is best not to allow them to bear heavily at first.) We measured some of the sprouts grown this season and found a number of them six feet long. In the three-year-old vineyard we saw half a dozen varieties, all loaded with grapes except the Seedless Sultana. There is not the slightest indication that frost has ever visited this vineyard. All this has been done by thorough cultivation, no irrigation whatever having been resorted to.

LOTS OF MAST.—One of the hog-men from the oak-covered foothills says there will be acorns and acorns of hog-feed this year; hence he is happy and smileth and goes down into his overalls and digs up two dollars and four bits. As he counts the coin the editor gets happy and smiles, too.

Solano.

PAYING POULTRY.—Dixon *Tribune:* R. H. Barkway, of Rio Vista, sold a dozen year-old chickens in San Francisco a week or two since for $14. They were of the Light Brahma breed. This seems a fabulous price, but it must be remembered that the dozen weighed 100 pounds.

A SMALL BLACK BEETLE, unnamed in the catalogue of fruit pests, is committing fearful ravages among the grapevines about Davisville. Thousands of vines in the Briggs vineyard are almost completely denuded of foliage, and the crop ruined. No remedy has yet been found. Sulphur and Paris green only sharpen his appetite.

Sonoma.

WOOL-SALES DAY.—Cloverdale *Reveille:* Wednesday, June 15th, is set for general wool-sale. It is very important to wool-growers that they take advantage of this opportunity and bring their wool before more than one judge for inspection. A good quality will be eagerly sought for and buyers will come into competition and the highest prices will be offered. Let there not be a wool-grower in the whole vicinity remain away. It is going to be a lively day for Cloverdale. The ladies of M. E. Church South propose giving a dinner on the occasion.

Sutter.

EGYPTIAN CORN.—*Farmer:* The Egyptian corn pastures are growing nicely, and are about ready to be turned on. No more profitable discovery was ever made in California for summer pastures on our uplands.

Yolo.

PEAS IN PLENTY.—*Mail:* Mr. Lusk, who has an extensive garden on Cache creek, states his crop of green peas this year will amount to about 2000 sacks. He will probably ship them all.

PROLIFIC BARLEY.—C. Hevel paid us a visit Wednesday, having with him a bunch of 52 stalks of barley, which had sprung from one grain. He took it from a 50-acre field, near Merritts, and says that the whole field is of as heavy growth.

Tulare.

BERMUDA GRASS.—Tulare *Register:* Three years ago J. A. Cary, of Tipton, began an experiment with Bermuda grass on alkali. He had a small patch of ground near his reservoir that was clad in white alkali as with a shroud. Nothing, not even alkali weeds, would grow upon it. But the Bermuda grass took root, spread its tendrils out and took root again and again, and now, in three years time, it forms a perfect mat over so much of the alkali spot as it was planted on, covers it as with a Smyrna rug. Nor is that all. Bermuda grass does make very valuable pasturage. In the same inclosure with this grass plot is a little patch of alfalfa, and Mr. Cary tells us that if he turns any of his animals upon that alfalfa patch they will feed a little while and then deliberately walk over upon the Bermuda grass and feed there the rest of the time, decidedly preferring it to alfalfa.

Yuba.

WILD BLACKBERRIES.—*Appeal*, May 27: The banks of the Feather river for several miles north of the railroad bridge were alive Sunday with boys and Chinamen, gathering wild blackberries, which they found plentiful, and in most places easy of access.

OREGON.

THE FRUIT CROP.—Willamette *Farmer*, May 27: The fruit crop could hardly pass through the 10 days of rain and hail and storm of early May unscathed, and in most of this valley, and probably through the whole region west of the Cascades, the damage has been considerable. We hear from all directions of serious injury and loss, though in exceptional localities orchards stood the severe ordeal and will produce fairly; and we happen to be among those so favored. Cherries were damaged by the frosts that followed the storms, and around Portland will be light. Peaches were almost totally destroyed by the hard frosts that followed the warm spell in January, and there will be a very small yield of peaches anywhere north of California. Plums and prunes are damaged more or less; so are pears, and some assert that they will have no apples. It is common to hear such complaints, and to find fruit in abundance when the crop ripens. It is probable that the damage is overstated, yet there must be some ground for such universal complaints. Our fruit-growers have a good market opening to them that increases every year. The Canadian Pacific region will demand a large supply; the Northern and Union Pacific are developing new mining regions, and these form the most reliable and profitable customers for our fruits.

In Butte County.

From many who have visited the enterprising vicinity of Oroville, Butte county, we hear words of praise for the natural features of the country and its adaptation for the most desirable growths. The exhibits made at the recent citrus fairs in Sacramento have brought the region into much prominence, and its progress in development bids fair to be rapid and great. In our notices of the fairs, and extracts from time to time from the local press, our readers have heard of many who are leading in citrus and other cultures and thus have become acquainted with their work. A correspondent who drops us a brief note mentions the place of T. B. Hutchins, at Central house, where he found a flourishing orange grove, in front of his residence, which bears finely. Mr. Hutchins has also a 40-acre orchard of peaches and apricots, which is doing well. Loquats bear well with him.

There seems to be a general disposition to add fruit to other farming enterprises. Daniel Hilton, one mile east of Oroville, who has a fine dairy herd of 80 head of Jerseys and Shorthorns, has 15 orange trees which are now 12 years old and bearing well; also lemon trees in bearing, and 16 acres of mixed fruits. At the ranch of C. B. Shear, four miles north of Chico, our correspondent saw a large orchard of apricots, peaches and plums, which hold a good crop this year; and a small vineyard thrifty and promising. Mr. Shear also grows grain, and his crop looks well.

There is much inquiry in Butte county for homes. The enterprise put forth recently in dividing upland and making it available to settlers in small parcels is bringing in many desirable settlers. We are glad to hear of such advancement, and shall be glad to have short notes of news from those who have not the time or inclination for more elaborate letters.

MONARCH FENCE MACHINE.—The progress in public esteem made by what is sometimes called "combination fence," that is, pickets interwoven with wire, is quite remarkable, though not wonderful, for certainly this style of fence has very much to commend it. There are various styles of the fence, as our readers know—that which is made at the factory and sold by the bale, and that which is put up on the line with a special machine. Of the latter sort, one which has won prominence is the Henley Monarch fence machine, which has been advertised in our columns. Hawley Brothers Hardware Co. have now the agency for this machine. A handsome illustrated catalogue can be had on application to them.

NEW GOPHER TRAP.—All the boys will be interested in the advertisement in this paper of a new gopher trap which was invented and patented by Bertie Jolly, of Soledad, Monterey county—a youth of 15 years. It is claimed that a boy can catch more gophers with it in a given time than a man can with any "grown-up" trap. No doubt all the boys will want to try it. They say if you don't think it worth what it costs you can get your money back.



The Crimson Snow Plant of the Sierras.

[Written for the RURAL PRESS by E. T. Y. SWETT.]

High in the great dome of Heaven
Rises a white mountain peak;
Calm, pure, lofty, and steadfast,
What if it seem a bit bleak?

Search in its frozen white bosom,
Tenderest plant-life is there;
Caressed and nurtured and sheltered,
Under the crags black and bare.

Look not for warmth on the surface,
For surface must character show;
But search in life's hidden recesses,
There snow-plants of love ever grow.

1419 Taylor St., S. F.

A Scare.

"Well, I will try once more, Milly; but you mustn't be too particular."

Tom frowned a little as he reminded his young wife that this was the fourth time she had been left without a servant during the year they had lived at Cloverbanks.

It was such a bother to be bringing them constantly from the intelligence office!

And Milly colored a little, knowing that she was very particular and a little set in her way, and might be more patient. She would try hard to succeed with the next one; it was so dreadful to get along in the hot weather with no help, and the baby teething.

Tom drove in town, and about 11 o'clock a neat little woman came out on the train.

"I am glad you are not a young girl," said Milly. "I suppose you have had experience in housework?"

"Oh, yes, indeed!" was the reply, with suavity. "I have kept house for myself; I am a widow."

"Have you been a widow long?" asked Milly.

"Two years. I understand all kinds of cooking—fine laundry work—everything."

So it proved. Milly was so pleased she felt absolutely grateful, and looked on admiringly as the rather disordered household was brought up to a state of perfect order.

Meanwhile, Mrs. Maria, as the new-comer styled herself, was very loquacious.

"Perhaps I say it, who shouldn't, Mrs. Westerly, but I'm good help. I can take right hold anywhere, and I don't overcharge. I've lived in a number of places and they'll all recommend me."

"I should think likely," replied Milly, who was rocking the baby, while Mrs. Maria put the sitting-room to rights.

"I'm a good hand in sickness, too. Hope none of you won't get sick while I am here, but it's unhealthy this hot weather," dusting the mantel deftly. "Don't you think Mr. Westerley looks a little peaked?"

"The heat wears on him some," said Milly.

"It's bad to get out of health—affects the nerves."

She had a small round face, with apple cheeks and sharp, black eyes. She paused in her work and looked intently at Milly.

"Affects the mind?"

"Yes."

"It's bad to get the mind disordered."

"It is, indeed," said Milly, carelessly.

"I don't suppose you notice it, Mrs. Westerley, but I think Mr. Westerley is very irritable."

"He gets tired," replied Milly; "and, as you say, I think he is not very well."

She blushed a little for Tom, remembering how he had scolded because the baby had thrown the hair-brush in the bath-tub that morning. But she had really excused it, because she knew he was overworked, and had not rested well through the hot night.

She was not well herself; the dog-days had commenced, and she felt dull, weak and unsociable. The baby cried nights, and Tom was certainly impatient and testy.

Mrs. Maria seemed insensible to the heat. She flew about the house like a parched pea. Milly literally had no care of the housekeeping. Everything was done in an exquisite order. It was a great relief.

Most a fortnight after Mrs. Maria's arrival, Milly received a letter from her Aunt Helen, asking her to come down to the shore for a week.

"I can go, can't I, Tom?" she cried.

And Tom said yes.

So Milly and baby went down to Havenside, and told Aunt Helen what a nice housekeeper had been left with Tom at Cloverbanks, and how delightful it was to be free for a week to enjoy the salt air and surf bathing.

When she came back Tom met her at the station; there was an anxious cloud on his brow.

"Feeling well, Milly?" he asked.

"Oh, yes, indeed!" she replied, brightly.

He looked at her sharply, and she looked at him.

"Why, don't I look well, Tom?"

"I don't see but what you do," he answered.

"How has Mrs. Maria got along?"

"First-class."

"She is a treasure, isn't she?"

"Yes."

But Milly thought Tom looked queer; he was always watching her. When she woke up in the morning she found him looking at her sleeping face.

How strange of Tom! He wasn't irritable now, he was odd. It made her nervous, as if some trouble were impending which she did not know. It seemed to her that Tom looked pale and harassed.

"Is anything the matter, Tom? What makes you seem so queer?"

"What makes you act as if you were afraid of me?" he responded.

"You look so strange!"

"I am worried a little—but never mind."

Soon Milly began to notice that Mrs. Maria was watching her, too. A dozen times a day she found the little woman's eyes fixed sharply on her face.

It was annoying. She was quick-tempered and could not help showing that she was annoyed.

"What do you want of me?" she asked one day, haughtily, when Tom was present.

"Nothing — nothing," replied the little woman, soothingly.

Tom, who was reading, looked around sharply.

She thought Mrs. Maria said something to him as she passed his chair. It sounded like: "They never like to be watched!"

Who? Did people think she had joined a gang of conspirators?

She went up to her room with a swelling heart, but it was a very hot night, she was very tired, and soon forgot her troubles in a heavy sleep.

She was awakened by Tom crossing the room and found that he had the baby in his arms.

"She will sleep better in the next room with me," he said.

"She's very well in her crib, Tom," said his wife, in wonder.

Milly could not sleep after that. Tom had looked so pale and strange. Every night, now, Tom slept in the next room with Lilly, and gave her to Mrs. Maria to be dressed in the morning. She said something rather fretfully to Mrs. Maria about "Mr. Westerley's notion."

"Poor dear! can't you see?" said Mrs. Maria, pitifully.

"See what?" asked Milly, feeling as if she were going crazy.

"I've noticed it ever since I've been here. I don't know whether it's heat or overwork, or whether it's hereditary. The poor man is a little wrong in his mind."

The truth seemed to flash over Milly. Tom's uncle had died insane. His strange behavior was explained all at once. Her blood froze with horror.

"Oh, what shall I do?" she cried.

"You must humor him. There is nothing like humoring them. I've had a mother, a grandmother and two sisters insane."

"Oh, how dreadful!" shrieked Milly.

She sobbed and cried in the face of the calamity.

Then she tried to think. She dared trust him no longer with Lilly. He was mad and unsafe. Oh, it seemed as if the terrible thing could not be borne!

She was trembling like a leaf, when she saw Tom's buggy drive into the yard. He saw her agitation as soon as he entered the house.

"What is the matter, Milly?" he said.

"She's been very bad this afternoon, poor dear!" Mrs. Maria said, softly.

"Milly, perhaps I—I had better have a doctor for you."

"A doctor for me, Tom?" she said, amazedly. "Oh, don't—don't touch the baby."

For he had turned anxiously toward the cradle and taken the little one in his arms.

"Don't—don't take the baby!" cried Milly, in agony.

She reached to take it from his arms, but with a frown he resisted her. How strong he was! A panic seized her. She began to scream and cry aloud.

"Tom—oh, Tom! try to think what you are doing. Don't take the baby from me. You will hurt her. I want my baby. Oh, I must have her!"

"Oh," groaned Tom, "I must have help! Mrs. Maria, run for the doctor."

She had hardly gone, and Milly had sunk weakly into a chair, crying, when two men entered the open door.

"Is there a woman here named Maria Hewins?" they asked.

Tom shook his head.

"She is about here somewhere," the elder said. "Or else she has just left. You have employed her all summer."

"Do you mean my domestic?" asked Tom.

The men nodded.

"We have called her Mrs. Maria."

"It's all one. Her name is Maria Hewins. This man with me is her husband. She's got a family of seven children down in Maine. She's temporarily insane. The doctor says she'll get over it. She has escaped from the care of her friends."

"Then she isn't a widow?"

"No."

"Never lived out before?"

"Never."

"Is crazy?"

"Yes. And thinks everybody else is so. You'd never mistrust it, perhaps—she's mighty smart—but you see she's always thinking everybody else is insane."

A little information sufficed to put the men on the right track, and they went away.

"Milly!" said Tom.

"Tom!" cried Milly.

"She's made all this trouble."

"Yes. You ain't insane, are you, Tom?"

"No more than you are. But she filled my head with stories of your strange behavior while you were gone down to the shore. It seemed as if you did act strangely, Milly."

"It seemed as if you did, Tom."

"I was afraid to trust the baby with you. She warned me that insane mothers frequently injured their children."

"And I was afraid to trust Lilly with you, Tom. I thought you took her into the other room to sleep because you were crazy. Oh, I have suffered so!"

"I guess I have. Thank God," concluded Tom, "it was only a scare!"

They learned, the next day, that the author of their misfortune was safely recovered by her friends.

But Milly received such a shock that she never took into the house another domestic without thoroughly investigating her character.

May in Plumas.

[Written for the RURAL PRESS by MARY P. ARMS.]

We are indeed in the midst of the spring—not the uncertain April days with the breath of March still lingering over them—but the warm, self-assured May time, entering into the very heart of things. The swollen buds on the trees are bursting into abundant leafage. We are rejoicing over the "splendor of the grass." Our dumb friends come home sleek and satisfied with their abundant pasturage. The grain is coming up, and we are lost in admiration of its delicate green tint and the old miracle of growth, ever new.

The farmers begin to pray instinctively for rain, some almost unconsciously, others with the well-assured faith of those who believe in the great Fatherhood of Him who is Lord of the harvest. And the gathering clouds and afternoon winds are suggestive of spring showers. The apple trees, which are few in number in this high valley given over to summer frosts, are wonderfully beautiful in their dress of pink and white. The plum trees have failed to give us of their bridal veil of bloom, because of some cold weather which came earlier in the season. But when we look at the delicate emerald dress in which Dame Nature has clothed them, we think with Ruskin; "What a beautiful thought it was, when God first thought of making a tree."

The budded lilacs are swaying in the breeze, but we fear those cold days have robbed us of the beauty and fragrance of their purple plumes. The green tufts of the poppy have sprung up everywhere, and just now they are beginning to give us their gifts of gold. Indeed Flora has spread a rich repast for those who love her, all over the pasture and meadowlands.

The insect world seems all astir. How little thought we give to the myriad of wee creatures God has made! The cocoons, so wonderfully woven by the great green caterpillars last summer, are opening, and the butterfly with painted wing flits leisurely from flower to flower. The bees hang heavily about the doors of their hives, awaiting the royal mandate for swarming. The little chickens run about the yard, chirruping their utter helplessness, and are answered by the reassuring call of the brooding hen-mother in the coop. Watching her, we recall the beautiful simile of holy writ, so expressive of divine tenderness: "O Jerusalem, Jerusalem! how often would I have gathered thee as a hen gathereth her chickens under her wings."

The birds are busy with their nest-building. The June roses are coming into bud. All things are suggestive of the summer. Bloom and beauty are everywhere. Our souls are not large enough to contain it all.

Beckwourth, Cal., May 25, 1887.

THE BOTANIC GARDENS OF THE WORLD.—According to a report of the Montreal Horticultural Society, there are 197 botanical gardens in the entire world, and they are thus distributed: France and her colonies, 25; England and Ireland, 12; the English colonies, 27; Germany, 34; Italy, 23; Russia and Siberia, 17; Austria and Hungary, 13; Scandinavia, 7; Belgium and Holland and colonies, Spain and colonies, and the United States, 5 each; Portugal and Switzerland, 3 each; Denmark and Roumania, 2 each; Brazil, Chili, Ecuador, Egypt, Greece, Guatemala, Japan, Peru and Servia, 1 each. The list may be completed by mentioning the gardens of Geneva and Louvain, and a few that have recently been organized in English India. At least half of the gardens mentioned above are kept up by the Government, 18 per cent by universities, sometimes in conjunction with the general or city Government, 11 per cent by cities alone, and 5 per cent by private donations. Out of the same number 94 per cent are always open to the public, 70 per cent are open to visitors on Sunday only, and 73 per cent publish reports or contribute in some such way to scientific research.

My Lady-Love.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

What matters it about her hat?
What if 'tis high, or if 'tis flat?
I look within it for her mind,
To know if it is wise and kind,
Her spirits worthy, and if deep
Enough her tenderness to keep
My heart as warm as may behoove
The situation, as I prove
Me worthy as her lifelong guest,
And find myself sublimely blest.

An Excursion in Santa Barbara County.

EDITORS PRESS:—They were going to dedicate the new church at Ballards, so we thought that would be a good excuse for a trip to that pleasant berg. A delightful companion, a driver and a gentle team, good roads and glorious weather, made the journey of 16 miles seem quite short. We arrived at Mr. Shankland's house just before the evening shades began to fall, the day before the dedication Sunday.

After pleasant greetings and a refreshing meal, we all went to practice singing together for the next day. After a good night's rest, we were aroused at the peep of day by the rusty squeak of the swallows, who were building their nests under the eaves. Such a comically horrid noise they made. One has to laugh, although somewhat annoyed by being awakened so soon. Being unable to sleep, we soon arose and dressed. We wandered in the garden, admiring the beautiful flowers, especially the grand La Marque rose, whose trailing masses of sweetness covered the whole front of the lower story of the house. The honeysuckles, passion flowers, and pink, red and yellow roses, claimed their share of praise. After breakfast our hostess and companion gathered great masses of the flowers to decorate the little chapel that was to be dedicated to God's service that day. Willing hands had arranged everything but the fresh flowers the day before. The time for Sabbath-school having arrived, we walked with others to the little schoolhouse where it was usually held. It is a neat building, and the walls had been beautifully decorated with wild trophies, such as birds' wings and plumage, pretty grasses and butterflies, curious bugs, and even a tarantula was among the collection. The neat arrangement of the articles and the artistic drawings upon the blackboard all attested the skill of the teacher who had gained the love of the scholars by her affectionate care for her pupils, and they delighted in assisting her in every way they could.

The Sunday-school session was shortened, because of the extra service to be held at the church, which all had assisted to erect in the valley. Soon the church was filled with eager people; quite a number of campers from Santa Barbara, some from Santa Ynez and Los Alamos, and, of course, all the Ballard folks. After the service by the Rev. Selah Brown, assisted by the pastor, the Rev. Adam Bland, the people were informed that a debt of $80 was due upon the house. It was all finished except plastering, and that would cost $80 more; so they asked for assistance to make up the $80 due before the dedication of the building, and for the amount necessary to plaster it, if it could be obtained. The money was soon given and subscribed, and the church was dedicated to the service of the Lord. As the Methodist pastor had been the leader toward getting the church, it was to be held by that society, but other evangelical societies were freely offered the use of the building.

How pleasant it is to see the faces of old friends, and grasp the extended hands of those we have not seen for a long time. We enjoyed that pleasure, and then went home with one of them, Mrs. Davidson, and partook of an excellent dinner; then to the house of a new acquaintance for supper; then to the church again to listen to a sermon on Heaven, by the Rev. S. Brown; then to bed to dream of the beauties and delights mentioned in the sermon.

The swallows awoke us again in the morning, and hearing plenty of stir below stairs we went down to find ourselves too late for the first table, although it was only half-past 5 A. M. We decided to visit the Santa Ynez mission that morning, and then go to the house of an old friend for dinner, according to request. So we filled out a program for the day: A visit to the mission, dinner at Mr. Coiner's, a call at Mr. Lyon's, tea at Mr. Smith's, two more calls and then a voyage as far around the world as we could get in two hours, with the Rev. Selah Brown at the Ballard Church.

At the mission we were shown around by Mrs. Donohue. She and her family have been living in the building for five years. She escorts every one through the building who desires to go, and is a delightful guide. The part that left the most impression upon us is the little cemetery about 50x150, opening from the church and inclosed by high adobe walls, where 3000 bodies are said to be buried. The priests are buried in a vault beneath the church. The five bells were visited and a grand outlook was obtained from the belltower. The valley, once cultivated by the padres, is now again in a state of cultivation. The olive orchards and the vineyards look fine from the tower. In the gallery were some hymn-books of parchment, so tempting that a collector of antiquities could hardly refrain from coveting them.

Begging one of the tiles that had been re-

moved from part of the building for a memento of our visit, we wended our way through the valley. The road is bordered each side by waving billows of grain. The rich green of the fields is compassed and dotted over with the wild mustard, whose yellow and fragrant blossoms relieve the scene.

Mr. Brown's lectures are very interesting to read, but they are very much enhanced when heard delivered by the author, who has the power to make one see just what he has seen and feel the influences he felt while seeing them. You read that a thing is 1200 feet or 3000 feet and you do not get a very good idea of the hight. But you realize every foot of the distance when he tells you about it. And his power to make one laugh or cry is great. He left us at the tomb of Jesus in Bethlehem. As we started with him from California we felt that we had certainly made a good long journey for the small amount asked by the guide. Our trip home the next day was enlivened by songs and reminiscences of our visit and the lecture, and a feeling of gratitude to those who had made our stay with them such a pleasure and such a rest.

MRS. J. HILTON.

The Heroine of Hawaii—Defying Pele.

In 1825, Kapiolani, a native woman of noble blood, commanding presence and large landed possessions, having become a sincere convert to the Christian faith, conceived the idea of breaking, by one bold stroke, the chains of idolatry and superstition which bound her people. This superstition was centered in the marvelous volcano of Kilauea, and in Pele, whom they believed to be the goddess of the volcano. To accomplish her object she resolved to visit Pele in person, and in presence of the worshipers of the goddess to defy her, and let them see that this could be done with impunity. Notwithstanding the remonstrances of her relatives and friends, who said and did everything to prevent her from carrying out her resolve, she set out upon her difficult journey of 100 miles, on foot, with a band of 80 followers, and, after several days' travel, approached the largest known active crater in the world, whose lake of lava and brimstone has rolled and surged for ages. There she was met by the prophetess of the goddess who forbade her further approach, and threatened her with the anger of Pele if she persisted.

Kapiolani tried to concilitate her by treating her kindly, and offered her refreshments, but the priestess scornfully refused to eat.

"What is it you have in your hand?" asked Kapiolani.

"It is a palapala (a message) from the goddess Pele."

"Ah, read it to us, then." After the priestess had uttered a torrent of unintelligible sounds, Kapiolani said: "I have a palapala as well as you, and mine is one that can be understood." Producing her Bible she read various passages, and finally succeeded in silencing her opponent. Then, with her followers, she ate of the berries that grew on the mountain-side, which were considered sacred to Pele, and to eat of which without first having made an offering to the goddess was accounted sure death, and, in full view of the terrible fires of the volcano, made an address, defying Pele and denying her power and existence.

"If I perish through the anger of Pele," she said, "then you may believe in Pele and fear her power. But if not, then believe in the God of the Bible, which is my God. All the gods of Hawaii are vain." A hymn of praise to God was sung and then all knelt in prayer.

This act of sublime heroism on the part of Kapiolani made a deep impression upon the minds of the Hawaiians. The missionaries were reminded by it of the prophet Elijah, defying Baal on Mount Carmel, and they gave their fearless convert the name of "The Heroine of Hawaii."

The foregoing narrative, obtained by the S. F. *Chronicle* from a returned missionary, is all the more interesting from the fact that the present Queen Kapiolani is a descendant and namesake of her who set at naught the reputed goddess of the volcano.

How History is Made.

The Woodland *Democrat* the other day observed: "We were shown this morning by David Barnes a chump of wheat. The remarkable thing about the chump was that 161 wheat-stalks had spread from one grain. It was raised in the yard of Mr. Barnes' brother, Sam, who resides near the courthouse."

The Woodland *Mail* says:

"Tom Barnes brought to our office Monday a single stool of wild oats that grew in his yard on Second street. It measures six feet in hight and consists of 160 full-headed stalks. This splendid specimen comes from a single grain, as Mr. Barnes watched over it from the time the first blade came out of the ground."

These two little paragraphs—each plainly meant to give a truthful report of a simple incident—show how rarely it is that any two people see just alike. They illustrate the difficulty of getting at the cold facts in any given case, even when the honest intention of the witnesses is unquestioned, and evince what justice there is in the sarcastic phrase: "As false as history." We shall probably never know for certain—and certainly don't much care—whether it was wheat or oats and whether the yard it grew in was Sam's or Tom's.

YOUNG FOLKS' COLUMN.

Firelight.

[Written for the RURAL PRESS by AUNT SUSIE.]

"What makes you look at the fire so long, mamma?" said a bright-eyed little boy named Romney.

"I'm thinking, dear, how like my boy's life the fire is."

"Tell me about it, please, mamma."

"Well, dear, as I sit here by the fireplace, the big stick that looks so black and sullen makes me think of the naughtiness there is in my boy, and the bright, dancing, flashing flames in front of the good there is in him, and as I watch and see the flames leap all over the black log, and know that in a little while they will burn it all up, I can't help wishing that the good in my dear boy will burn out that naughtiness and all the black thoughts and actions; and now, my boy, when you feel cross and naughty you must say to yourself, 'I don't believe I want to be like that black log in the fireplace. I had rather be like the pretty bright flames; so I guess I won't be cross and naughty any more.'"

"All right, I'll try," said Romney, "and now, mamma, please tell me more about the wood."

"Well, dear, long ago a little acorn fell from an oak tree; the wind blew, and it was soon covered with leaves. Then some rain came, and, as the drops splashed down on the ground, little grains of dirt were thrown up over the acorn; and so, little by little, it was covered, and lay there asleep a long time. Then, all at once, it woke up and thought, 'Dear me, this idleness will never do. I must go to work and make an oak tree.' So it gave a stretch to throw off the sleepy feeling, and off came its shell and out burst a tiny green sprout. It kept on growing and pushing its way up, and, after awhile, was up out of the ground, and could look all around; and as it saw the lovely big oak trees, it said: 'O dear, I wish I was a big tree.' The leaves on a tree near by heard it, and, as they rustled in the wind, whispered: 'We were little once; push bravely on, little sprout, and some day you will be a big and beautiful oak tree.' So the little sprout took new courage and grew bravely on, and as the days and years went by, it grew to be a big tree with great branches spreading all around; then somebody wanted wood to burn, so the tree had to be cut down, and all those years of patient growing were burned up, but you see they were not lost; for you and I perhaps are made warm by the wood from that very tree. Now I'll sing you a little song about the acorns:

"Three little acorns on the ground
Lay helpless by the tree;
Nobody saw, nobody found
Those little acorns three.

"And so the little acorn grew,
First a tiny bit of green,
All the long day through
Was all that could be seen.

"One little acorn then did say,
'There's work for you and me;
We must work day by day,
To make a big oak tree.'"

"A City Girl's Adventure."

[Written for the RURAL PRESS by "THOM."]

When vacation came, ten-year-old Grace was going to the country to visit her five cousins, and have a "real jolly time," as she said. The cousins had written to Grace several times, and gave accounts of the good times they would have, so no wonder she was anxious for vacation.

Well, it did come in time, and such a time the cousins did have. Tina and Rose picked a few summer flowers and made bouquets for the parlor; Charley picked the nicest fruits for the lunch-table; Louis and Frank swept up the yards and sprinkled the long veranda so as to have it nice and cool.

"Oh! here she comes," cried Frank, giving the broom such a throw that it knocked down a little duck in the back yard.

Then there was such a clatter of young voices the girls had to take the visitor upstairs for fear the boys might carry her out to the barn to see the new calf or the horrid pigs that girls so dislike.

"Here's a mustard bottle for you, Grace," said Frank, brandishing a bottle in each hand.

The six cousins were going to the creek to have a good wade and catch little minnows. It would not be a very tiresome walk, for it was only a little way and a branch of the creek which they were to follow was covered with a large variety of trees; so it would be cool.

All went well until they sat down to take lunch. Frank's bottle, which contained his little minnows, was leaning against the bank close to the tin box that carried the crackers, when it upset and the little fish were struggling on the crackers for water. "Hi! a French dish, folks—fish on crackers," cried Louis, tossing a little fish in the creek. They all gave Frank three fish to make up for the lost ones, and all went right again. They were all very tired and a very hungry set of children when they reached home.

Next day they agreed to go to the clump of willows in the old pasture and pick blackberries. This seemed to Grace to be the most adventurous day in the country she ever had. All six started out after breakfast, each with a pail. In half an hour they reached the willows, and amused themselves by playing "horse" on the willow boughs.

"Oh! there's old Billy; let's give Grace a ride. Here is a rope on this 'willow horse,'" said Charley, getting the rope from around the limb.

"He is real kind, Grace," said Tina and Rose together.

Now old Billy, the donkey, was a good old fellow, and if you would not rumple his temper he would no more think of kicking than a rabbit.

"Well, I will," said Grace.

Grace had ridden the little donkeys several times in the parks in the city where she lives, so was not afraid of old Billy now.

Grace was quite pleased with the fun, and so started for the middle of the field for the third time.

"There goes Pup after a rabbit," said Frank, pointing in the direction Grace had ridden.

"Oh! I'm killed!" cried Grace, as the donkey began to kick, and landed Grace on the ground.

"Run, boys; the dog has frightened old Billy," said Rose.

They all ran to her relief, and Rose and Tina helped her on her feet.

"It's a wonder you were not killed," said Rose, brushing the dust from her dress.

"Well, I am nearly; look at that lump on my head, it feels as big as a marble," cried Grace, with tears in her eyes.

"Let's go home," said Frank, taking a berry and making a mustache.

So they all started home with very dirty hands and faces, looking like a demoralized set of children.

Grace remained in the country for three weeks, but never again did she get on old Billy, the mule.

Island Home Farm.

GOOD HEALTH.

Starving the Teeth.

"Teeth are just as easily starved to death as the stomach," said a lecturer before a Brooklyn audience the other night. "The fact is that you and your fathers have from generation to generation been industriously starving your teeth. In one way it is a blessing to have been born of poor parents. What food the poor give their children is of a variety that goes to make strong bones and teeth. It is the outside of all the grains of all cereal foods that contain the carbonate and phosphate of lime, and traces of other earthy salts, which nourish the bony tissues and build the frame up. If we do not furnish to the teeth of the young that pabulum they require, they cannot possibly be built up. It is the outside of corn, oats, wheat, barley and the like, or the bran so called, that we sift away and feed to the swine, that the teeth actually require for their proper nourishment. The wisdom of man has proven his folly, shown in every succeeding generation of teeth, which become more and more fragile and weak. These flouring mills in Minneapolis are working destruction upon the teeth of every man, woman and child who partakes of their fine bolted flour. They sift out the carbonates and the phosphates of lime, in order that they may provide that fine white flour which is proving a whitened sepulcher to the teeth.

"Oatmeal is one of the best foods for supplying the teeth with nourishment. It makes the dentine, cementum and enamel strong, flint-like and able to resist all forms of decay. If you have children, never allow any white bread upon your table. Graham bread is made of whole wheat ground, not bolted, so that the bran, which contains the minute quantities of lime, is present. To make a good, wholesome, nourishing bread, take two bowls of wheatmeal and one bowl of white or bolted flour, and make by the usual process. Nothing is superior to Boston brown bread for bone and tooth building. This is made out of ryemeal and cornmeal. Baked beans, too, have a considerable supply of these lime salts, and should be on your tables, hot or cold, at least three times a week. In brushing the teeth, always brush up and down, *from* the gum instead of across. Brush away from the gum and on the grinding surfaces of your teeth."—*Brooklyn Eagle.*

EXPERIMENTS WITH TAPEWORM EGGS.—Some weeks ago the distinguished scientist, Dr. F. Zschokke, and ten of the students at the zoological laboratory, Geneva, undertook a heroic experiment for the purpose of studying the development of tapeworms in the human system, to which end they swallowed the eggs of the repulsive parasite. From every part of Europe they received letters of approbation and encouragement—one single letter only blamed them for having made the dangerous experiment, and this came from the president of a society for the prevention of cruelty to animals! The eggs had been taken from a variety of fishes known or suspected to be the transmitters of tapeworm. For nearly two weeks all went well; but in the course of the third week the presence of the unpleasant guest manifested itself plainly with most of the experimentalists. In every instance a complete removal of the parasite was effected, the specimens extracted varying in size, two or three reaching a length of two meters. Dr. Zschokke is about to publish the result of his experiment.—*New York Tribune.*

RULES OF HEALTH.—A writer in one of our medical journals says that it is considered by all physicians impossible to lay down any rules for health which may be followed safely by all persons. Health depends largely upon the diet. Some people cannot eat newly baked bread; others cannot eat it when stale. Much fresh meat with some constitutions induces fullness of the head and a feverish state of the system, because it makes blood too fast. It should therefore be discarded, and a little salt, meat or fish if the appetite craves it, with fresh fruit and vegetables, will be found probably to be just what the system requires. In truth, with health, as in many other things, each person must be a law unto himself.

DOMESTIC ECONOMY.

CHICKEN SALAD.—Mince the white meat of a chicken fine, then chop the white parts of celery, and prepare a dressing as follows: Rub the yolks of hard-boiled eggs smooth with a spoon; put to each yolk one teaspoonful of made mustard, half as much salt, a wineglassful of strong vinegar and a tablespoonful of the best olive oil. Put the celery in a salad-bowl, lay the chicken on that, then pour over it the dressing. Lettuce cut small may be used in the place of celery, but the latter is much more delicious. Cut the whites of the eggs in rings to garnish the salad.

PICKLED EGGS.—Boil some four or six dozen eggs in a capacious saucepan until they become quite hard. Then, after carefully removing the shells, lay them in large-mouthed jars and pour over them scalding vinegar, well-seasoned with whole pepper, allspice, a few races of ginger and a few cloves of garlic. When cold bung down closely, and in a month they are fit for use. Where eggs are plentiful the above pickle is by no means expensive, and is a relishing accompaniment to cold meat.

CREAM CODFISH.—Pick into small pieces the salt fish, freshen with cold water, changing the water two or three times. Put it into a saucepan with half a cup of boiling water, and piece of butter size of an egg, a little cayenne pepper and slice of onion chopped very fine. Stir smoothly one tablespoonful of cornstarch in a little milk, add a cup of milk, pour it over the fish, and stir constantly until the butter melts and the whole is well cooked. Break two or three eggs into it and serve hot.

SALMON SALAD.—To a can of salmon take 8 or 10 stalks of celery; cut the celery into small pieces and mix with the salmon, which should also be picked into small bits; sprinkle over it a little salt and a very little pepper, and pour on some good vinegar. A small onion may be added if desired.

STEAMED VS. BOILED POTATOES.—According to Professor P. Wagner, steamed potatoes are far more nutritive than boiled ones. With the latter, not only is more water taken up, but also nutritious salts are extracted by the surrounding water. The author publishes analyses in upport of his opinion.

CREAM OF RICE SOUP.—Wash and parboil one-half pound rice. Drain and cook in one quart of white stock until soft. Run through a sieve; add one pint cream, one teaspoonful salt, one saltspoonful pepper, and one cup cooked asparagus tops. If too thick, thin with more stock.

OYSTER PIE.—Fill a shallow pudding-dish with oysters, cream, pepper, salt and butter. Let it stand on the top of the range until just boiling; then cover the top of the dish with a thick crust, about half an inch thick, and bake until the crust is a very light brown. Serve hot.

SILVER CAKE.—One cupful of sugar mixed with two tablespoonfuls of butter; add one cupful of flour with one teaspoonful of baking-powder, half a cupful of cornstarch, half a cupful of milk, the whites of three eggs; flavor with vanilla. Bake in a moderate oven.

CHOCOLATE CAKE.—Beat the whites of two eggs with a quarter of a pound of powdered sugar into a frothy cream, add the juice of half a lemon and six ounces of finely grated chocolate; drop this mixture in spoonfuls on a flat tin, and bake them slowly.

STRAWBERRY MOUSSE.—Mash one box strawberries, press through a sieve, sweeten with powdered sugar, and stir on ice until very cold; add one pint thick cream, beaten to a stiff froth; turn into a mold; imbed in a pail of salt and ice, and let it freeze.

STEWED CUCUMBERS.—Pare the cucumbers, cut them into quarters, remove the seeds, soak in salted water one-half hour, then put them into salted boiling water, and cook until tender. Season with salt, pepper and butter, and serve on toast.

PACIFIC RURAL PRESS

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SAN FRANCISCO:
Saturday, June 4, 1887.

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See Advertising Columns.

The Week.

The vacation season is fairly upon us. The hot weather of last Saturday was the last feather which turned the scale in favor of knocking off work, and the flight of office-holders, professional men and women, and people of leisure—in fact, all who are not tied down to desks or counters by the pursuit of the needful, has fairly set in. The schools are closing, the courtrooms are given over to the janitors, and schoolma'am and judges are seeking the seaside, the brookside, the mountain-side, or taking ship or train for more distant parts.

Per contra, the agriculturist is girding his loins for the hardest working of the season, and the rural housewife is mustering all her strength and cheerfulness for her heavy end of the harvest work. The fruit crop is advancing fast and the shipment of the early varieties but opens the way for the great struggle. Things are looking fairly well for the disposition of the crop. The grain must soon be harvested and it does not make the burden lighter to have the probable outcome small. There is a buoyancy in the fact of a great yield, which nerves up the arm and heart, and the hope of plenty of funds for a vacation after harvest, or for needed home improvements, is wonderfully sustaining through the heat and hurry. Comfort can be had, however, from the fact that in many cases the situation might be much worse, and that a short year is generally followed by a long one. There are good times coming.

The Leland Stanford, Jr., University.

This new temple of thought is born of a feeling that the great schools and colleges are not doing their whole duty by this busy, practical age; that they take too much time and load the mind with a deal of stuff that is useless. "An Oxford education," says Froude, "fits a man extremely well for the trade of a gentleman. I do not know for what other trade it does fit him as at present constituted." Speaking of his plans, Senator Stanford says: "I have in my business experience found that too much of the current college training launches young men on the world void of much practical knowledge of any calling that will enable them to earn their living. Scores of educated youngsters have been sent to me seeking employment, and I could not do anything with them because they would not fit in anywhere."

Now this may not be wholly a matter of observation; perhaps the Senator knows how it is himself. When he was an undergraduate, the chief business of the student was to dig Greek roots instead of living plants; to watch the sprees and flirtation of rabble gods rather than the evolution of States and the problem of governments. It is true, they became familiar with the thoughts of Plato and Xenophon, Homer and Sophocles—noble, beautiful thoughts they are, too, but the thoughts of men who lived thousands of years ago, and in times very different from ours. Much time was spent in learning the angles of refraction of the different colored rays, but very little devoted to the handling of microscopes or telescopes in search of objects. They were taught the lines and curves in which the great orbs moved under the combined impulse of repellent and attractive forces, but the knowledge of the geologic growth of the great globe on which they lived, its races of animals, plants and men, was crowded into a corner. The whole system was too far away in space and time to be of any practical use. Under the old system, geometry, trigonometry, mechanics and physics are about the only things of real practical value, and in these branches more time is given to the theoretical and abstract than to the really useful. The whole scheme seemed to be devised to keep the student as far away as possible from all contact with the great actual world.

Nor is this state of things likely to change for the better. There has been a deal of talk but little done, or likely to be done inside the old establishments. It is hard to get out of ruts, and it is just about as difficult to recast a curriculum that has become venerable as an old creed that is sacred in memory. Take an illustration that happens to be at hand. The Adelbert College of the Western Reserve University, in the beautiful city of Cleveland, Ohio, may be regarded as a fair average specimen of this class of schools. According to the printed curriculum of this institution for the year 1884, there are during the four collegiate years and two years of preparatory training in linguistic, metaphysical and mathematical studies, 3550 hours of recitation and lecture, while to the whole group of physical sciences are given only 236 hours. Think for a moment of the vast and wonderful developments of our mines of iron, gold and silver, coal, petroleum and salt, and of the agricultural wealth in a large measure due to practical geology, and what are we to think of a course of training that devotes only 54 hours all told to recitations in geology and 1361 to Latin and Greek? Consider the ravages of pests and parasites upon grain, fruit, fruit trees, the diseases of domestic animals and the millions annually lost from these causes, and yet not one hour is given in the whole college course to entomology or biology. Not the slightest aid is given to our farmers and fruit-growers in battling these myriad foes. In this institution there are 535 hours of recitation given to mathematics, largely to the abstract relations of time, space and number, to sines, tangents and arcs, the forms and orbits of the heavenly bodies, and not a single hour to the study of one's own body and the laws of hygiene. The planets and comets may whirl in conic sections, the moons of Jupiter wax and wane, and Saturn move on a retrograde path, much to the confusion of astronomers, and the average man not find his happiness and usefulness aided in the slightest degree by a knowledge of the fact; but if he violates the laws of his body through ignorance or intemperance, his whole life may pass into a total eclipse. This ought they to have done and not left the other undone.

With all due respect for the dons and their ancient dignities, the education that does not put a boy in the way of earning a good, honest living is of very little value, and this we take to be the central idea of Leland Stanford, Jr., University. It is true we have technological and industrial schools that train the brain, eye and hand together, and are doing an excellent work; in the chemical, physical, botanical or mechanical laboratory; in the drafting-room, at the forge, power lathe or planer; in the foundry, machine-shop, printing office, shop, garden, field and stockyard; but the trouble is, they stand alone or as adjuncts of colleges, with slender means, and are looked upon with ill favor by the college dons. What is needed is to honor and dignify industrial training, by taking it under the wing of a munificently endowed university, where a hand-saw and a Greek lexicon are alike honorable. This idea is not novel nor experimental; it is in successful operation at the California State University and several other State Universities, and Senator Stanford's munificent gift is the indorsement of one of our most practical and successful business men. There are some that feign to laugh at what they call the "bread and butter" education, but better a discovery for killing pests than a new accent in Greek; better acrobats, gymnasts and stout baseball players than white-handed, pale young men, reciting whole pages of Horace and unable to earn the salt that goes into their mush.

Vegetables for the East.

The spud is a lowly growth; the cabbage-head is not adorned with the ringlets of poesy; the onion moves to tears by other means than sentiment. In short, garden-sass does not figure largely in idyls, nor bespangle the environment of epic scenes. The peas clustered in the pod approach nearest perhaps to the realm of the imagination, but the poor asparagus, which associates so closely with the sugary legume in kitchen economy, stands lower in literature than the toadstool. Who can help contrasting this degradation of the vegetable with the elevation of the fruits and flowers? We might turn to botany to solve the problem, for one might be led to higher honor for growths which are related to the rose than to those which are cousins to the deadly nightshade. But this does not afford broad enough ground for the solution. No poet would dare an ode to the bean, but sweetpeas and clovers are accepted themes. But these are things past finding out, like some of the problems which transcended the philosophy of old Job.

Nevertheless, garden-sass should be much higher regarded in our industrial calculations. Truck-farming is one of the pillars of strength in the uprising of the "new South," especially that portion of it which has quick conveyance to northern cities. Truck-farming is destined in the future to cut a greater figure in industrial pursuits in California. It is true that much of the field is now given over to the stranger from the shores of the Mediterranean and the east of Asia, but it is more than likely that in the future the high-born American citizen will be devoting a portion of his best land to the growth of the vegetables which carry best and sell best in the Eastern markets. Last fall we spoke of the movement in cabbage which resulted in large shipments to the Missouri-river cities and beyond, and relieved this market so that krout prices became respectable. The California cabbage for its immensity and solidity won laurels in the Western marts.

Providing fostering freight rates can be secured, there is destined to be a large trade in many kinds of California vegetables. Every year for a long time there have been spring shipments of asparagus and green peas, but the freight rates have been very high. Lower rates, with cheap cold storage facilities, will enable our growers to place even these more tender vegetables at the East at prices which many people can well afford to pay. We were thinking especially, though, of the more desirable vegetables, like cabbage, new potatoes and their kin. Whether there can be much done in new potatoes is now in process of demonstration. On Tuesday evening of this week a special potato train of 12 cars left the city for Chicago, by way of Ogden and the Union Pacific railroad. The rate made to the shippers was $1 a hundred pounds. The arrangement is not the same as that to be made for fruit shipments. While the train is run as a special, it is to make regular schedule time—seven days from San Francisco to Chicago. This is the second train of the kind sent out, and will be followed by others. The greater portion of the shipments is from Southern California. In getting their potatoes into the Chicago market ahead of the season in Illinois, the California producers command a good price, and it is believed that the enterprise will be a paying one—especially as there is little damage in transit. It is stated that the Atlantic & Pacific will soon run a potato train out of Los Angeles to St. Louis and Chicago, making the same rates as the Central and Union Pacific. The rate to the Missouri river is 90 cents a hundred pounds.

As we have said, this trade is promising. Los Angeles people have already said that in some cases cabbages paid better by the acre than oranges. There is much thermal-belt land in different parts of the State which can bring in very early potatoes and peas; and the cabbage area is vast. Let these things be looked after—not too fast, but as fast as the way can be opened up for the profitable disposition of the products.

The Hot Norther.

Since our last issue one of the hottest of hot spells known to Central California has come and gone. Saturday, May 28th, the mercury in the Hydrographic Office, S. F., beat the record by rising to 97°. The highest temperature noted here before was in 1872, when the line of 95° was passed.

The heats prevailed as far to the north as Oregon, Portland reporting 99° on Sunday—the warmest since the signal service was there established—and the Columbia river had risen seven feet within 10 days.

In this State, Yreka told of 103° in the shade, but no injury to crops so far as known.

In Butte, Colusa and Yuba counties, there was apprehension of serious damage from the norther to the grain in milk, especially upon the plains; but later telegrams were, as usual, more hopeful. Colusa, after subsiding from 102°, said (Monday): "It is now thought the reported damage done the grain by the hot weather of the past three days was overestimated;" and Marysville's dispatch of same date, announcing cooler weather, quotes Geo. Ohleyer of the *Sutter Farmer* as saying the damage to grain is slight—not to exceed five per cent—and the fruit crop in these counties seems unhurt.

Some parts of Napa county told of 103° in the shade, and blight in the vineyards.

In Solano, farmers were much disturbed about their wheat, and at last accounts were fearing serious shrinkage; but the barley was already safe, heading having commenced, and on the adobe lands south and east of Dixon the yield promises to be the heaviest ever known. No injury to fruit and vines is reported in this county; nor in Sonoma, save to strawberries and cherries about Petaluma.

About Livermore "the damage to grain is considerable and will cause more to be cut for hay. Vines and fruits are uninjured."

In Santa Clara but little harm to grain and none in orchard or vineyard was noticeable.

As to Monterey—Gonzales telegraphed 31st: "The barley crop shows great durability and is maturing slowly. The harvest is just commencing."

In the San Joaquin the mercury at some places reached 110°, with wind like a furnace-blast, and further damage to winter-sown grain was inevitable, but the summer-fallow was ripening fairly and fruit had experienced no material injury.

In Tulare the crops suffered less, and the heats were succeeded by a heavy thunder-storm with a sprinkle of rain, which in the mountains eastward became a down pour.

Bakersfield knew of no harm done fruit or other crops; but about Los Angeles the combined storm of rain and wind caused a vast acreage of barley to lodge badly. Santa Barbara, too, came in for a share of the unwonted lightning and thunder Sunday night, and as we go to press Wednesday, the wires bring tidings of heavenly pyrotechny at Marysville and Merced, with showers accompanying. The rapid melting of mountain snows has also caused a rise in the American and Sacramento rivers, and take it for all in all, the weather of the past week has been phenomenal indeed.

Grindelia Robusta.

We give on this page a native California plant which is becoming quite famous for its medicinal virtues. We take the engraving and description from a very interesting contribution to systematic knowledge of our American medicinal plants made by Dr. George Vasey, botanist to the Department of Agriculture in Washington.

The *Grindelia robusta*, or "gum plant," is an herbaceous perennial plant of the order *Compositiæ*, growing in California. It has an erect, leafy stem, one to two feet high, branching near the top, the branches terminating by a single composite head of flowers, somewhat resembling the flower-head of saffron, the body of which is about one inch across, with the narrow, strap-shaped yellow flowers spreading out in every direction from the margin. The leaves are alternate, rigid, mostly oblong, the upper ones lanceolate, the base sessile or partly clasping the stem, and the margins often with coarse, sharp teeth, the upper ones becoming entire. The flower-head, which is usually regarded as a single flower, is really a compact mass of small flowers of two kinds, the inner ones having a tubular corolla and the outer or marginal ones having a long, strap-shaped corolla. This cluster of flowers is surrounded by an involucre of many lanceolate-pointed, green scales, whose tips are recurved, presenting a rough appearance. This involucre is usually gummy with a balsamic exudation.

The central flowers of the head are generally infertile and are copiously supplied with fine bristle-like pappus. The outer flowers, or a few of them, are fertile, producing a small, oblong, smooth seed. This plant is common throughout the western part of the State of California, and is commonly known as gum plant, or sometimes, but improperly, tarweed. There are three or four other species of *Grindelia* in California, and several more in Oregon and the interior, extending to New Mexico and Arizona. They are all closely alike in general appearance, and probably also in properties. The species we have described has some reputation in California as a medicinal plant, particularly as an antidote to the poisoning of the poison-oak, *Rhus lobata*. It has also within a few years past been introduced into medical practice for use in chills and other diseases. Upon the right of the engraving, at Fig. 1, is an enlarged disk-flower, showing the achenium surmounted by the rigid, awl-like pappus.

Gambling in Breadstuffs, Etc.

The Hon. Edward Everett, the once eloquent orator and thorough and honest statesman, in an address before the New York State Agricultural Society delivered a few years before his decease, spoke in the following manner upon gambling in breadstuffs, a kind of business which was then practiced upon a very limited scale to that which is now in vogue. An anathema upon any business, coming from such a source, deserves high consideration. What would that great orator and thoroughly conscientious man say now, were he living and called upon to speak of the transactions of the present stock exchanges of the country, and of the innumerable stock-gambling transactions and mischievous combinations in every department of commercial, productive, and manufacturing industries?

In acknowledging, as I do most cheerfully, the important relations of city life and commercial pursuits to the entire social systems of the country, I leave of course out of the account—I have no words but of abhorrence for—the organized conspiracies, swindling and plunder which exist side by side with the legitimate transactions of the stock exchange. It is not one of the least perplexing anomalies of modern life and manners, that while avowed and thus far honest gambling—if I may connect these words—is driven by public opinion and the law to seclude itself from observation within carefully tiled doors, there to fool away hundreds, perhaps thousands in secret—discredited, infamous, blasted by the anathemas of deserted, heart-broken wives and beggared children, subject at all times to the fell swoop of the police—the licensed gambling of the broker's board is carried on in the face of day, its pretended sales of what it does not own, its pretended purchases of what it does not expect to pay for, are chronicled in the public prints to the extent of millions in the course of a season, for the cruel and dishonest purpose of frightening innocent third parties into the ruinous sacrifice of *bona fide* property, and thus making a guilty profit out of the public distress and the ruin of thousands.

Southern California.

[NO. 4.—CONTINUED.]

[Editorial Correspondence.]

Our last letter was terminated somewhat abruptly by the printer for want of room. We now resume where we left off at

The City of San Bernardino.

Coming back to the city, we find a thriving, beautiful town, containing a population of from 6000 to 7000 souls—nearly double that of one year ago. The city, as incorporated, is laid out just one mile square. The center of the main street constitutes a portion of the east and west base line from which all the Government surveys in the southern part of the State start north or south. This is known as the Mount San Bernardino base line. The city presents a bustling scene of activity; it is being well and substantially built, and is ornamented with a great number of fine public buildings and elegant private residences, with roomy grounds elegantly laid out and beautified with trees, plants and lawns; while from every direction the eye and senses are delighted with the beauty and fragrance of the orange, the lemon and every variety and color of shrub and flower. As already remarked, the climate of San Bernardino is delightful. The summer tradewinds from the ocean, as they reach the city after a passage through the San Gabriel valley, are mild and invigorating. The thermometer sometimes reaches 100° or 110°, but even at the latter point the air is not as oppressive as in San Francisco at 90°. This fact is due mainly to the cool air which comes down from the mountains during the night, cooling and gently modifying all the surrounding country from the noontime heat of the previous day.

San Bernardino County

Is the largest in the Union. It is a dominion in itself, exceeding in extent of area several important kingdoms and republics of Europe. It is double the size of the State of Massachusetts. It is one of the oldest American settled portions of California. True, much of the larger portion of its area is mountainous and comparatively barren; but it nevertheless contains within its borders some of the finest lands on the Pacific Coast, and there are none which excel it in the production of tropical fruits. There is scarcely a product of earth, mineral or vegetable, that cannot be produced in some portion of San Bernardino county. Even its most rugged mountains are not devoid of value, as they contain some of the richest mines in the State, and afford opportunities to gather up from their snow-capped summits winter water, which may be held and distributed as it is wanted during the drouths of summer. An important enterprise in this direction is just now being started by Maj. Bonebrake, who owns some 50,000 acres of land on the great plains north and west of San Bernardino. The winter waters of Lytle creek are to be utilized and stored up much after the manner of the Bear valley enterprise, which will furnish water sufficient to irrigate from 15,000 to 20,000 acres of the land above referred to.



A NATIVE CALIFORNIA MEDICINAL PLANT—Grindelia Robusta.

Four Papers Daily.

San Bernardino may well be proud of her ability and enterprise in supporting four daily newspapers. In the same proportion, San Francisco should support over 30.

Colton,

Situated directly upon the Southern Pacific railroad, four miles from San Bernardino, is rapidly assuming considerable importance as a business center and shipping point. Fourteen years ago the ground upon which the town stands was a worthless waste. Now it is an important railroad center, with a population of about 2000 souls, with a bank, cannery, fine stores, hotels, and a constantly increasing line of general business. The Southern Pacific and Atchison, Topeka & Santa Fe lines cross each other at Colton. It is connected with San Bernardino by a motor road, and another similar road will be built this summer to connect Colton with Redlands and Lugonia. The latter will be a broad gauge and fitted for both freight and passenger traffic. It is a terminal point of traffic on the Southern Pacific. The town is growing rapidly and increasing in wealth and importance. A fine hotel has been projected to be built upon Slover mountain, a short distance from the town. It will be built under the patronage of the Southern Pacific railroad, and will rival in magnificence and outlook the famous Raymond at Pasadena.

RIVERSIDE.

The fame of Riverside has become world-wide. It is a city of gardens—the whole a beautiful park. It is made up of beautifully embowered homes—of elegant villas surrounded by groves of orange and lemon trees. The scenery of Riverside is superb. Flowing streams and delightful homes with fruit, foliage, plants and flowers in endless variety, comprise the foreground; while abrupt but shapely hills, backed by lofty mountains, fill the distant perspective. The climate is delightful—there is no winter, while the heat of summer is so tempered as not to be oppressive. It is indeed

> "A Paradise to mortals given,
> To make us think the more of heaven,
> To make us prize the blessings given,
> Where hills and mountains e'en surround,
> Lulled by the winds to calm profound."

It is one of the most prosperous and beautiful settlements in Southern California. Fifteen years ago it was nothing but a barren desert, dry, uninviting and of little value. Now it is a prosperous city of some 5000 or 6000 inhabitants, with fully 6000 acres covered with grapes, oranges and lemons, all under a state of cultivation nowhere excelled on earth. Magnolia avenue, the most beautiful drive in California, extends for some eight miles directly through the center of the city, bounded on either side by rows of palm, cypress, pepper and eucalyptus trees, with hedges half concealing yet ever revealing continuous orchards and groves of orange, lemon, lime, olive, apricot, etc., interspersed with vines. Riverside is the center of citrus fruit culture in California. Not only does it excel any other locality, either in California or Florida, in the extent of its orange groves and the amount of fruit produced, but it is the most free from insect pests, and its fruit commands the highest price in the markets. Riverside is also especially proud of the great award given to her oranges at the late New Orleans World's Exposition as being the best in both appearance and quality of all the great number of orange exhibits made on that occasion. Two gold medals and one silver medal were triumphantly borne away from that exhibition—one gold sweepstakes medal for the best collection of oranges from any part of California, a gold medal for the best collection of oranges from any part of the United States, and a silver medal for the best collection of lemons from any part of the world. No triumph of the character in contest could have been more full and complete.

As a Raisin-Producing District,

It is equally well known. Its raisin product for the last six years has been as follows, expressed in boxes: 1880, 20,000; 1881, 40,000; 1882, 50,000; 1883, 70,000; 1884, 85,000; 1885, 110,000. The reader will notice the gradual annual increase of production. The amount of the product for 1886 is not before us as we write, but the total receipts therefor were something over $200,000. Five hundred carloads of green and dried fruit were shipped from Riverside last season.

The Orange Product.

We have no data at hand of the total amount of oranges shipped the present season to date; but we have a statement that up to about the first of May 300 carloads had gone forward, with about 100 carloads still remaining upon the trees and 50 carloads of oranges and 7 of lemons then in the cold-storage house and held back for a better market. This is all in addition to the large shipments which are made to this city and other parts of the State, where the fame of Riverside oranges has created quite a demand for her superior fruit. The home consumption is also very large, especially by Eastern visitors for their own use and for sample packages to send to their friends in the East. The sales, as above, to Eastern visitors are set down at about 100 carloads for the present season.

A Challenge.

It may be here remarked that Florida has challenged Riverside to an orange-exhibit contest, to take place next winter, under the auspices of the American Horticultural Society, which holds its next annual meeting at some point on the Pacific Coast. Of course, Riverside freely accepts the challenge, and expects an easy victory.

Old Riverside.

Those who were present at the late Fruit-Growers' Convention, held in Riverside, cannot fail to recollect the graphic description of the country in and about Riverside as given by the venerable General Vallejo as he saw it before any attempts had been made to introduce American improvements. It was then a pathless desert—beautiful and green in springtime, but dry, dusty and sun-scorched the balance of the year. In time came the American sheep-herder, who pastured his flocks upon those broad plains, then uninviting and apparently valueless to any other use. Gradually the sheep-herder passed away and men with brains

and energy came upon the scene. The soil was evidently rich and inviting, as was proven by the appearance of the old San Bernardino Mission and the new San Bernardino town which was springing up near by—each in districts well watered by artificial means. Hence there was no reason why other settlements might not be made with equally successful results. To the enterprising man from the East, a practical conception is quite generally carried out to its legitimate results, and no sooner was this idea conceived than capital was raised, engineers engaged and extensive works set on foot to bring in water from the adjoining Santa Ana river for irrigating purposes.

Magical Changes

Were soon wrought out. Cheered by the refreshing water, tickled by the plow and harrow, and urged and encouraged by the persuasive energy of the enterprising and intelligent cultivator, the once dry land soon began to bloom with every variety of blossom for fruit and flower, and we now behold thousands of acres of vineyard and orange and lemon groves, with miles upon miles of green and shaded avenues, dotted all along with cottages and villas, denoting the presence of happy and prosperous homes. Land that but a few years ago was not worth the care of occupancy is now readily selling with its improvements at from $400 to $2000 per acre. Business lots, in the center of the town, that two or three years ago were selling at from $1000 to $10,000 each, are now bringing from $10,000 to $15,000.

Does It Pay?

Of course it does. The evidence of the reality of these values may be seen every day by any who choose to observe and inquire into the results of fruit-growing in Riverside. The returns from the older orchards are surprising, to say the least. There are fruit-growers there who have realized $250 per acre from four-year-old budded trees, set out two years from budding, making the tree eight years old from the seed. Other orchards, say four years older, or 12 years from the seed, have netted from $400 to $500 per acre. These are not isolated examples. They are a fair average of yield and profit.

In setting out an orange grove where money and time can be utilized to its best advantage, the orchardist should buy two-year-old budded trees of the best varieties. These trees will give a small yield the second year, and by the fourth year, if carefully cultivated, will yield the handsome return as above stated. Two-year-old budded trees cost, at present rates, from $1.25 to $1.50 each and are set out about 80 to the acre. A budded orange grove comes into bearing in four years from the setting of the budded tree. A seedling orange grove comes into bearing two, and sometimes three years earlier. A vineyard comes into bearing the third year from the slip. Such statements seem incredible to the orchardist who has been working under the very different conditions of climate and soil which prevail east of the Rocky mountains.

Homes and Investments.

From what has been said it will be readily seen that Southern California, and especially the upper portion of the San Gabriel valley and the San Bernardino valley as well, present most favorable advantages to the seekers for homes, where a few thousand dollars of ready money are at command for the establishment of a country home, which may also be made a source of permanent and annually increasing income. The well-known climatic advantages of Southern California first induced settlers to go *there* in search of health. Many of these people had before made annual visits to Florida, on the same errand; but on once trying California they found the conditions so much more favorable that they have ever since continued to "go West" instead of "South." These advantages are now so well known to the great crowd of health-seekers that the main tide of summer travel is turned in this direction, and while the hotels of Florida are nearly empty, it is almost impossible to increase the hotel accommodations of California fast enough to meet the vast demand. No invalid now thinks of going to Florida for a permanent home. The summer climate is baneful rather than otherwise; while California offers the highest climatic advantages to the invalid seeking a permanent home for himself and family, where he may not only enjoy all the health advantages, but where numerous opportunities are also presented for profitable investments on either a large or small scale.

Will this Boom Continue?

Most assuredly it will. So long as the same unpleasant climatic conditions exist east of the Rocky mountains, and so long as the mild climate of California continues to invite health-seekers, just so long will the present movement—or *boom*, as it is sometimes called—continue, at least until the country is literally filled with new-comers. There will always be a great army of persons at the East broken down in health by the rigors of the climate—persons who have made money and who are well-to-do, and who are desirous and abundantly able to better their conditions, who will turn their faces to these Western shores. This army is being more and more largely recruited every year. No human agency can change the climatic conditions at the East, and no human power can prevent the suffering ones from seeking relief in the mild perennial spring and summer of Southern California. There will be enough of them who will come every year—many thousands who will come to stay. This is quite unlike the ordinary tides of human movement, which are usually set up by accidental circumstances, in which the moving cause soon disappears. In this case the cause is as immovable as the laws of nature, and nature alone has power to stop the movement. When the conditions are exhausted; when there is no more land that the wealthy invalid can buy, even at high fancy prices, then we may look for a cessation of the present influx into California—and not till then.

The Great Rush of '49 and '50

Is being repeated. The chief point just now is Southern California; it is already spreading north. The lower San Joaquin is beginning to feel the overflow from Los Angeles. This movement will undoubtedly be continued until the population of every portion of the State, from Oregon to Mexico, has been largely increased. Every part of California possesses climatic and other advantages for homes and business far superior to what can be generally realized in any of the States east of the Rocky mountains. The boom of the early years of California was initiated and kept up by the richness and abundance of her mines. When they began to be measurably worked out the boom as a matter of course died out. The climate and wonderfully productive nature of our soil, both of which are now discoveries to the majority of our Eastern friends, are the moving agents in the present boom. Neither climate nor soil will decrease in value or desirability, hence there will be no material diminution in the movement in this direction until the State is fairly filled up with people—not until they can be numbered by millions. W. B. E.

The Fetes of Flora.

The months of April and May are eminently the months of flowers in California. Before the April days were all gone by, floral festivals had been held in several places with delightful success, and those at Chico, Los Angeles and Santa Barbara were described at some length in our columns.

Among these earlier displays, that given by the ladies of

Woodland

Was quite notable. The large and usually somber Prior's hall underwent a surprising and beautiful change. From the ceiling hung long intertwined festoons of living green, and below were flowers everywhere—no corner was neglected, and each seemed fairer than the rest. There were "mounds of roses, waves of violets and oceans of every flower that blooms," freighting the air with delicate and various perfume.

The first thing to catch the eye of the visitor was a floral pyramid, ten feet high, made almost wholly of white flowers, but capped with bright red roses. Immediately in front of the pyramid lay a bed of white flowers, lettered in red with the words, "Woodland, Yolo County, Cal."

In a ten-minutes' opening address, Hon. C. H. Garoutte spoke of the blessed influence of the flowers, saying they were a solace and comfort to all, a promoter of virtue and a barrier to vice. He compared the California of to-day with that of '49, and told how the State had grown since then, and where once were arid plains there now bloomed the choicest flora of the world. The speech was excellent and listened to with rapt attention.

There are certain favorite subjects for floral designs pretty sure to be presented at every such exhibition. So we ask our readers to take it for granted that, beside all the array of cut flowers and potted plants, there were crosses, anchors and stars, hearts, horseshoes and pillows, with not infrequent easels, shields and flags, of divers shapes and sizes, and in various combinations of many-hued blossoms, to be seen at all the flower festivals this spring, Woodland's included, and that some were peculiarly tasteful and artistic.

Among the more novel designs were a full-sized armchair of roses, a four-leaved clover in geraniums, a golden harp of marigolds entwined with smilax, a variegated parasol of roses, and a bear—also of roses—with "N. S. G. W." at his head.

A huge rosebush, on which were no less than 1000 roses growing, excited much remark; and a block of ice, in which a beautiful bouquet had been frozen, was a novelty to many. In the words of a local reporter: "There were hundreds of other exhibits to which we cannot give space in this issue. The flowers were all beautiful and the different pieces showed rare ingenuity and taste."

The Rose Fair in aid of the Woman's Exchange, here in San Francisco, bound the months together with garlands of unbroken bloom; and since May-day, fetes in Flora's honor have been celebrated near and far. There was the show at San Jose, already noticed by a correspondent; and then certain enterprising ladies of

Pomona,

Stimulated by the success of Los Angeles, swiftly set afoot their first flower festival, to raise funds toward the establishment of a free public library, purely non-sectarian and non-partisan in character.

The festival was held in Taylor's Opera-house. On entering, one came first upon an imposing real-estate office, in whose construction, however, flowers were used. A sign, "Olmsted & Overton," hung over the door,

(*Continued on page 509.*)

ENTOMOLOGICAL.

Notes on Icerya.

Its Probable Origin the Islands of Bourbon and Mauritius.

[Written for the RURAL PRESS by PROF. C. V. RILEY, U. S. Entomologist.]

I have just read with a great deal of interest the letter of W. M. Maskell to State Inspector Klee, in your issue of the 7th inst. This letter really brings up quite an important question, so far as our White or Fluted scale is concerned. In an article in my forthcoming report, as U. S. Entomologist, of which I have sent you advanced page proofs, I have, without question, assumed that *Icerya purchasi* Maskell was a good species and distinct from *I. sacchari* Signoret, because Maskell, in his second article on the former species (Trans. New Zealand Inst. for 1883, page 140), after an examination of specimens of *I. sacchari*, sent him by Signoret, says that he finds the "Mauritian species undoubtedly and markedly distinct." This letter to Mr. Klee brings up, however, the whole question of the accuracy of his determination. He admits that he has never seen Signoret's *I. sacchari* alive. The only differences which he made in 1883 between *I. sacchari* and *I. purchasi* are as follows: *I. sacchari* does not seem to form an ovisac with longitudinal grooves, nor does the body of the insect, although somewhat hairy, show the great tufts of black hairs and the curious projecting glassy tubes springing from large brown coroneted bases which are marked features of *I. purchasi*. The number of circular spinneret orifices are much smaller in the Mauritian insects."

Now Signoret knew only two stages—the full-grown female and the newly hatched larva—while Maskell gave careful descriptions of the egg, the young larva, the second stage and the full-grown female, but had not seen the male larva, cocoon or adult. It is for this reason that I have given a very full characterization of the species in the article already alluded to.

Signoret's description, so far as it goes, applies thoroughly well to *I. purchasi* in some of its forms. His female had not formed the cottony or fluted-egg covering, at least he makes no reference to it. His figure, while showing a short truncated mass, does not indicate the flutings because the few lines upon it are evidently intended by the artist for the long, fine, glassy hairs. Maskell, following Signoret's description, rightly says that *sacchari* "does not seem to form an ovisac with longitudinal grooves." But Signoret himself says that *sacchari*, in the Island of Bourbon, "is confounded with *Lecanium gasteralpha*, under the name of louse-with-the-white-pocket." Whether Signoret assumed such confounding by the islanders because of erroneous supposition that this *sacchari* had no ovisac, or whether the islanders designate both the *Lecanium* and the *Icerya* under the characteristic vernacular, is not plain from the language, and is immaterial. On the principle of unity of habit in the same genus, I feel morally sure that Signoret's *Icerya* must produce her eggs in such an ovisac, and the Bourbonese are doubtless well aware of the fact, otherwise they would not so indicate it or confound it with *Lecanium*. We are justified in assuming that the female which my friend Signoret described and figured had only just begun forming its sac, and that its flutings had become effaced and the secretion unnatural in appearance. Maskell's second reason, viz., that *sacchari* "does not show the great tufts of black hairs and the projecting glassy tubes," will also lose force from the facts that Signoret particularly describes these glassy tubes as "long filaments, waxy, very fine, delicate, transparent," and that these tufts of black hairs are extremely variable in quantity, sometimes making the insect look quite dark and bringing out in strong relief the few smooth, orange-red or brick-red elevations, and particularly the series of about 22 around the border; at other times being so scarce that the insect has an almost uniform reddish-brown appearance.

It would appear, therefore, that, notwithstanding the differences in Signoret's and Maskell's characterizations, there is yet room for grave doubt as to the specific difference in the two insects, especially as upon restudying Signoret's description it accords in every other particular with *I. purchasi*.

You will pardon me, I know, for going into these technical details, because it is evident that the solution of these questions has a very important bearing. My own impression now is that future investigation will prove that the two insects are identical. The truth will in time be ascertained by getting all the different stages of *sacchari* from the Island of Bourbon or of Mauritius, and comparing them more carefully with *purchasi*, the different states of which I have fully detailed in my report.

Let me say in this connection that there is a great variability in *purchasi* as to the amount of matter secreted on the scale itself, which may very easily mislead, especially in dried specimens. In the orange groves of Southern California the general colorational aspect of the insect is, in all its stages, reddish-brown, the surface exudation being rarely excessive and never obliterating the reddish-brown color. This exudation is, in fact, more noticeable upon the male larva, which, together with his narrower, more elongate form, renders him easily distinguishable from the female. In the more northern parts of the State, however, I found that the general colorational aspect was quite different, owing to the greater excess of the surface exudation, frequently covering the body in little globular masses and giving it a whitish and even greenish aspect, and often rising along the middle of the body into a tufted ridge. This form corresponds more nearly with what Signoret has described, and it follows that this waxy surface exudation becomes denser and still more noticeable by contraction in the dried or cabinet specimens or whenever the insect has shrunken.

This question of the synonymy of the species bears directly on its original source; for if we have but one species of the genus, or even if there be two, and *I. purchasi* is found to occur on the sugarcane in the Islands of Bourbon and Mauritius, then the presumption will be that it originally came from these islands. In my address at Enterprise, I called attention to the fact that this Fluted scale seems to have become notably injurious almost simultaneously in Australia, South Africa and California, and on the assumption that it infests the sugarcane on the islands mentioned, it is much more easy to understand its introduction to the other countries. Sugar is exported from those islands into many parts of the world. The sugar, as it leaves those islands, is very coarse, and all the molasses or syrup is not extracted, centrifugals not being in use. For the purpose of draining, the sugar-makers are in the habit of putting a piece of cane in every hogshead, and, in addition, the top is sometimes covered with pieces of cane. In point of fact, I am informed that an insect, known in the trade as the sugar-louse, is of quite frequent occurrence in such sugar, and Prof. Wiley, of the Department of Agriculture, upon being shown specimens of *Icerya purchasi* (and he is quite familiar with the so-called sugar-louse), informed me that he thinks them identical.

On this hypothesis the initial spreading point is from the island referred to, and the insect probably made its way first to Cape Town and thence to Australia, New Zealand and California. This does not preclude the possibility of its importation upon other plants, but I think it highly probable that the chief method of distribution of an insect which is so tough as to bear long survival without food was upon sugarcane in sugar hogsheads, as it could be much more safely carried in this way than upon living plants. The determination of the original source of the pest is of vital concern in any study of its parasites, as such would be more apt to be found in its native country than in any countries of its introduction.

I have been quite anxious to settle definitely this question of its original home, and have lately had some correspondence with parties in Australia, New Zealand and Africa. The following extracts from such correspondence will prove of interest to the people of California. Mr. Kirk's statement will add weight to the hypothesis that I have ventured, while Baron von Mueller's statement also strengthens it. It may perhaps be impossible at this late day to definitely settle the question of this original source, especially as there may have been not one but several introductions (indeed we have evidence that such was the case) into all three of the countries in which it now occurs; but we can much easier understand its travels if it started as a sugarcane insect. I have italicized those parts of the following letters which particularly bear on the subject of this communication.

The sketch of the Dipteron which Mr. Crawford found attacking Icerya shows a great likeness in the body to some Hymenopterous Encyrtid; but the wings indicate its Dipterous character and that it belongs to the Dolichoponidæ near *Diaphorus*. So far as their larval habits are known, these flies are predaceous and live in the larva state in the ground. Perhaps Mr. Crawford has used the term "parasitic" synonymically with "predaceous," but I will not further anticipate what Miss Ormerod may report.

Extracts from Correspondence.

[The following are the extracts from the correspondence to which reference is made above.—EDS. PRESS.]

Letter from Roland Trimen, of Cape Town, to Prof. Riley.

As regards the evidence as to the Australian habitat originally of this insect, I regret that I have nothing to add to what has been already supplied to you. * * *

Since the Commissioner's report in 1877, the orange industry of the western districts has suffered most severely, scarce, very inferior and exceedingly dear fruit being now only obtainable where it used to be abundant, good and cheap. Where, however, the kerosene and alkaline solutions have been constantly applied by individual proprietors here and there, the result (as I am informed by Mr. MacOwan, Director of the Botanical Gardens) has been very encouraging. In the eastern districts the effects of the Icerya's attacks do not seem to have been nearly so serious, but whether this is due to a less suitable climate and other conditions,

or to more vigilance and exertion on the part of cultivators, I cannot at present determine.

The bug spread to Natal within the last few years, and last year I received specimens from them found on the common black wattle. Only yesterday I was sorry to receive a lot found there on the orange.

No public action in the matter has been taken since the Legislative Assembly, in 1887, threw out the attempted legislation on the subject.—*Roland Trimen, South African Museum, Cape Town, Cape of Good Hope, Feb. 8, 1887.*

F. S. Crawford, Adelaide, to Prof. Riley.

* * * Last year I entirely lost my colony of Icerya, owing to the attacks of a fly; a rough tracing of an unfinished drawing of the same I also forward. I know nothing about the Diptera and should be obliged if you can determine the insect from the drawing. I may say that I sent Miss E. Ormerod specimens of the fly about two months back, but, of course, have not had time to hear what she makes of it. This is the only instance I know or have read of, of a true Dipteron being a Coccid parasite. * * * —*Frazer S. Crawford, Surveyor-General's Office, Adelaide, South Australia, Feb. 21, 1887.*

Letter from Baron von Mueller, of Melbourne, to Prof. Riley.

* * * I beg to inform you that the *Icerya purchasi* (or a closely allied species) although occurring on *Acacia mollissima* and some congeners in the colony Victoria, has not attacked here (so far as I can learn or had occasion to observe) destructively attacked the orange orchards. I will, however, make further inquiries as well in this colony as in New South Wales, South Australia, New Zealand, and let you know the results.

Possibly the Icerya develops more readily in a moister clime than that of Victoria, and thus becomes more mischievous in California than here.

The introduction of this destructive insect into your States by means of Acacia seems to me very unlikely, because the various species of Acacias are so easily raised from seeds that no one will think to introduce them by living plants. Moreover, it could not have been the Acacia latifolia, which was the host of the Icerya, because that species is a native only of the north coast of Australia, and as yet nowhere existing in horticulture. Acacia armata certainly is grown for hedges, but always raised from seed, chiefly obtained from North Australia. It seems, therefore, more likely that when Acacias are grown anywhere, they would afford—particularly in humid climes—a favorable opportunity for the Icerya to spread. A similar circumstance occurred in Ceylon, and another in some parts of Brazil, where an indigenous insect plague became aggravated, when Eucalyptus, on which that insect preferably seized, became reared.* Whether the Icerya was originally an inhabitant of Victoria or merely immigrated, I will endeavor to ascertain; but such a subject of inquiry is surrounded with difficulty now after half a century's existence of the colony, particularly as the Icerya drew no attention here by any extensively injurious effects on any cultivated plants, though it may have caused on some plants minor or transient injury. * * * *Ferdinand von Mueller, Melbourne, Australia, March 21, 1887.*

Letter from L. M. Kirk of Wellington, New Zealand, to Prof. Riley.

On returning from a protracted tour of Forest inspection in the South, I find your letter of 22d December awaiting reply. My friend Baron von Mueller is mistaken in supposing that I have written recently on the *Icerya purchasi*. In a report on Fruit Blights printed two years ago, I drew attention to the pest, intending to treat at greater length at an early date; but my duties as Forest Conservator have prevented the intention from being carried out.

The insect is a native of the Fiji and other Pacific islands, from whence it has migrated, probably with orange trees, to Australia, New Zealand and California. Mr. Maskell states, I believe, that it is a native of Australia, and was introduced from that country on mimosa plants; but this is an error, and acacias are rarely or never introduced as living plants, owing to their being so readily propagated from seed.

The Icerya is abundant in the northern and middle parts of the Auckland district, and usually prefers citraceous fruits; it is, however, found in large quantities upon some of the wattles, evincing a decided preference for the silver wattle (*Acacia dealbata*). It is, however, occasionally found on furze, manuka (*Leptospermum scoparium*), peach and apple, but on these fruits only in small quantities, and not, so far as I am aware, doing serious damage; in fact it is only found upon these plants when growing in the neighborhood of infested Citrads. It is occasionally found on a few native trees, but it is not causing any great injury.

It is also found in Napier and other parts of Hawke's bay, on the eastern coast of North island, and in Nelson and the northwestern corner of the South islands. It is also said to be found in Canterbury, but I have no direct evidence of its occurrence in that district.

It is not found either in Taranaki or Wellington, in the North island, except Nelson and possibly Canterbury.

There can be no question that it is a serious foe to citraceous fruits and to wattles. In the vicinity of Auckland, and in many other parts of that district, it is abundant. I have seen trees greatly injured by its ravages, but cannot say that I have seen any killed. At present, orange culture has not attained large dimensions here, but there can be no question that Icerya is the worst foe our orange-growers will have to encounter.

I have not seen an acacia killed by this pest, although the under surfaces of branches are frequently covered. In a few established orange grounds, the yield of fruit is materially diminished by the ravages of this insect.

No official documents have been published respecting the Icerya, except the Fruit Blights report already mentioned, of which a copy of a Queensland reprint is inclosed herewith. The Forest Department has purchased Mr. Maskell's Account of Scale Insects, and is about to publish the same with colored plates; a copy shall be forwarded as soon as it leaves the press. * * * —*L. M. Kirk, General Crowns Land Office, Forest and Agricultural Branch, Wellington, New Zealand, March 25, 1887.*

From an Article by E. J. Dunn, in Melbourne Argus, Aug., 1886.

I desire to call attention to a species of coccus known as Dorthesia. *This destructive pest was first observed on the Island of Bourbon. Thence it spread to Mauritius, about 25 years since. In Mauritius it destroyed the orange and lemon trees, many of the ornamental shrubs and acacias, and wrecked most of the beautiful plantations and shrubberies. At Port Louis it still exists in loathsome masses on the handsome Talipot palms.*

About 12 years ago it was noticed for the first time in the Botanical Gardens, Cape Town, and most probably arrived there from Mauritius with plants sent to the Botanical Gardens. During the first summer it spread about three miles into the suburbs along the railway. Its fearfully destructive character now became evident, for the orange trees, the Australian wattles, the pittosporums and the blackwoods became loaded with this disgusting parasite, and the trees slowly but surely succumbed to its attacks. * * *

All trees of the orange kind, such as lemon, citron, shaddock, etc., proved especially suitable food for the Dorthesia, and once a tree became infested no amount of syringing or washing prevented its destruction. The disastrous results of its arrival at the Cape are all too evident.

Formerly in Cape Town itself, and throughout the suburbs, the orange tree lent a charm to the gardens that no other tree could give, and in the Western Province orange-growing formed a most important source of wealth, many farmers netting several hundreds a year from their orange groves. Some of these groves, planted by the Huguenots and their descendants, were of great age, and, beside being profitable, were objects of great beauty. Those of the Pearl, French Hock and Wagenmaker's Valley were especially famous.

To day this is all changed, and, except for a few dead stumps, these fragrant groves and this valuable asset in the country's wealth have disappeared.

Not so the Dorthesia; it is still advancing steadily, and leaving destruction in its wake, and will continue to do so as long as suitable food is within reach. * * *

*Always from seed.

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A number of correspondents being under the erroneous impression that Gustav Eisen, at some time, was owner of the above Nursery, caused by his neglect to add the word "Manager" to his name, I, the undersigned, wish to state that I am, and have been, the sole proprietor of this Nursery from its beginning; also that Gustav Eisen voluntarily retired from his position as Manager March 17, 1887, and since that time the business has been exclusively under my charge, and will be carried on as heretofore by

F. ROEDING,

Proprietor Fancher Creek Nursery.

Fresno, May 28, 1887.

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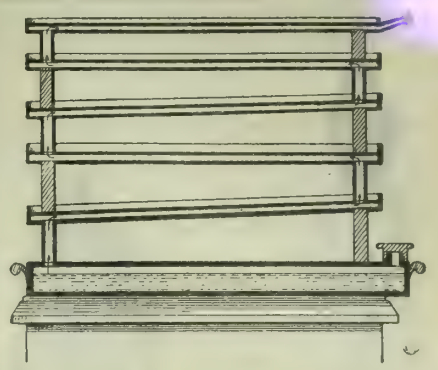
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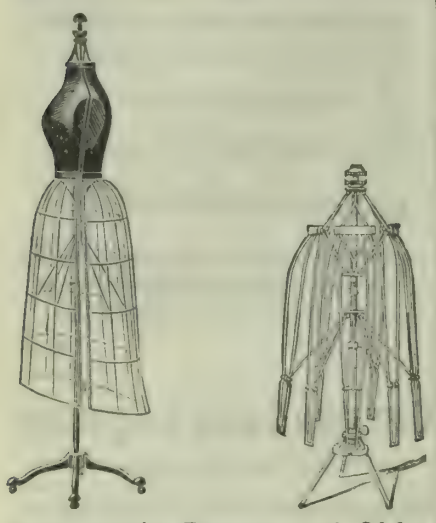
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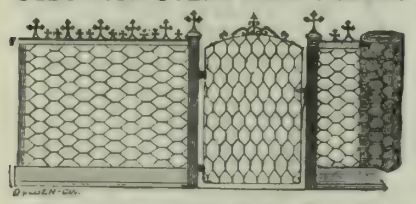
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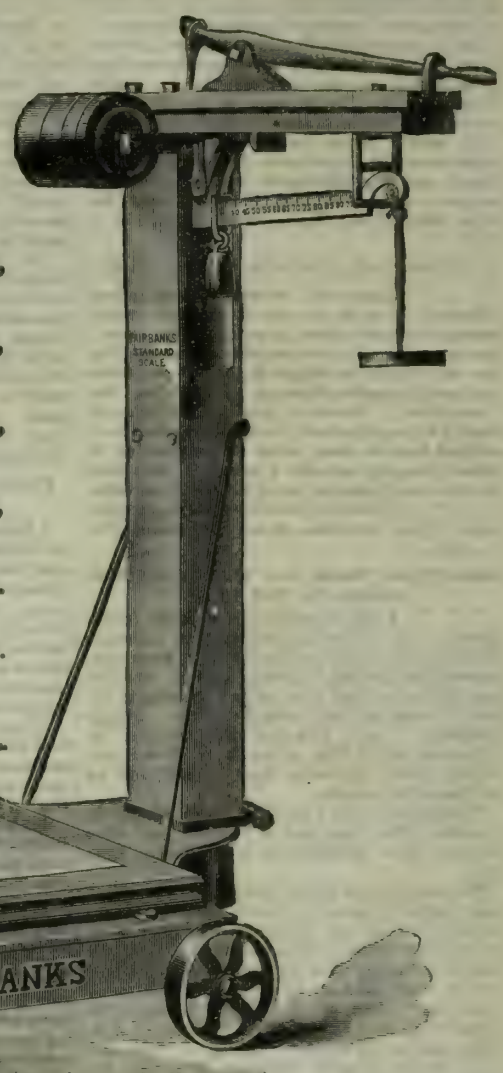
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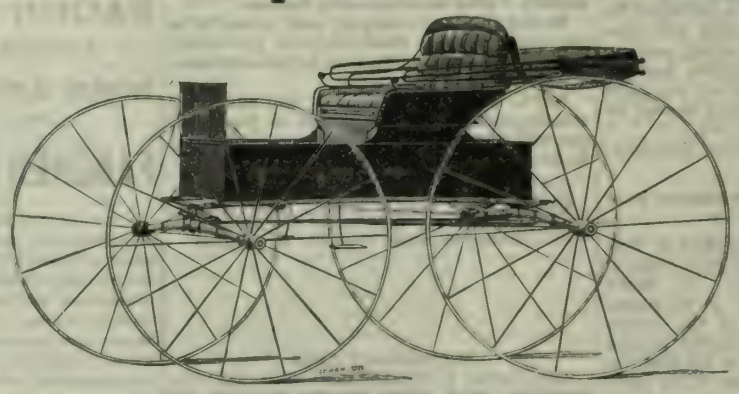
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A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. 80,000 acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION. 401 California St., San Francisco.

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THE VINEYARD.

A Destructive Grapevine Pest in Napa Valley.

EDITORS PRESS:—For several seasons there has been on the increase and appearing in new districts of Napa valley, an old and very destructive vine pest. It is a small beetle, black in color, with varieties brown and reddish chestnut, and in length from an eighth to a quarter of an inch. It was named by the great Linnæus in the last century *Adoxus vitis*, on account of its habit of feeding upon the grapevines. This insect is already so well known in Napa valley as to have obtained the local name of the "scribe," because its mode of feeding scores the leaves in many directions, by eating partly through them in short, straight lines. It attacks the green fruit also by just eating or nibbling the skin in a disconnected line, causing the grapes to crack and burst, and dry up. The same effect is produced on the leaves; the parts scored first turn brown and the sun dries up the whole leaf, because the venation being destroyed, the fluid circulation is stopped; the death of the leaf follows and in bad cases entire defoliation ensues. When Mr. G. R. Crotch, 20 years ago, visited California on an entomological tour, he found this species abundant.

The worm state of this beetle has not been observed in California, which circumstance would seem to make it appear that, like *Diabrotica soror*, it presumably feeds upon the hidden roots of other plants. But a reference to Baron Walckenaer's Memoir upon the insects of the vine, in Annals Soc. Ent. France, 1836, p. 247, makes the larval existence to be also on the vine.

The season of 1886 brought this pest in large number to certain vines belonging to Mr. Jacob Schram, of Schramsberg, between St. Helena and Calistoga, and these insects were so numerous as to reduce his wine average by several thousand gallons, and he would have been a greater loser had he not made a vigorous attack upon the pests. Mr. Schram, seeing that these beetles when disturbed fall to the ground, had constructed an area of canvas stretched upon a large hoop, and then divided so that the half could be thrust under the vine from each row; these half-hoops were each covered with coal-tar and silently thrust under a vine, a shake given to the vine, and the beetles, playing possum, are immured in the tar, and when the tar becomes surcharged with insects they are scraped off with a hoe or shovel. This method of destroying pests, though a good improvised plan, must necessarily make grape culture expensive. But this mechanical contrivance possesses an advantage over arsenical poisoning by spray and washes, in that it is surely innocuous; though arsenical solutions can be safely applied and with desired effect. The most recent treatment, and which would be worth a trial, because both safe and easy of application, besides being cheap, are those resin solutions propounded by Mr. Albert Koebele, agent of U. S. Entomological Department. If this solution, known as experiment No. 129, were used and applied by means of a cyclone spray nozzle, this insect would be under control. The following is Mr. Koebele's prescription:

Take of resin 4 pounds; sal-soda, 3 pounds. Dissolve the soda in 1 quart of water and add the resin. Stir them together and add boiling water *slowly* until 36 pints of the compound are reached. In applying this to the vines use one pint of the mixture to each gallon of cold water.

J. J. RIVERS.

University of Cal., Berkeley.

Pure Wines.

J. H. Wheeler, Chief Executive Viticultural Officer, has issued this week a bulletin giving full information as to provisions of the new law regarding the stamping of wines in this State, the way to procure the stamps, etc. The new law will go into effect June 5, 1887, and all wine-makers and dealers should fully inform themselves about it. Addressing Mr. Wheeler, at the office of the Viticultural Commission, 204 Montgomery street, S. F., will get the desired information.

The Pure Wine Law and Stamp Act will be enforced by the following committee which has been selected by Capt. H. W. McIntyre, superintendent of Senator Stanford's vineyard at Vina, to whom, as president of the Grape-growers' and Wine-makers' Association, was assigned the duty of selecting the committee: M. M. Estee, Napa; J. B. J. Portal, Santa Clara; Capt. Chamon de St. Hubert, Fresno; J. H. Drummond, Glen Ellen; H. A. Pellett, St. Helena; A. Erz, Anaheim; Jacob Schramm, Calistoga; H. A. Marriam, Los Gatos, and B. H. Upham, San Francisco. If the members of this committee find any adulterated wines they are to notify the district attorney to institute suit for condemnation. Under the head of adulterations are classed salycilic acid, glucose, cherry juice, aniline dyes and wines fortified by grain spirits. As every member of the committee is a wine-maker, and interested in protecting his wine from tamperers, effective work is expected.

Controller Dunn has forwarded the following circular to every wine-manufacturer in the State:

Arrangements have been perfected by which the wine labels authorized by the Act of March 7, 1887, commonly known as the "Pure Wine Law," will be ready for delivery at this office June 5, 1887, the date on which the Act takes effect, and will be supplied at the rate of $1.50 per thousand, plus charges for forwarding the same. Blank forms of applications for these labels, in accordance with said Act, will be furnished by this office. The price of the labels should accompany each order. Remittances may be made by express, postoffice, or Wells, Fargo & Co.'s money order.

The Fetes of Flora.

(*Continued from page 506.*)

and numerous town lots (of delicious roses), corner and otherwise, were displayed for sale. The "bulletin board" was covered with "bargains," and the "margins" on the sales of lots netted a neat sum. It was the hit of the festival.

One exquisite exhibit was a "floral parlor." A small rug of roses, dark in the center, changing to light pink at the edge, with a border of dusty miller, adorned the floor. The walls were ornamented with a handsome bunch of roses in a frame of marguerites and marigolds. An evergreen stand, an easel and palette, pincushions, sofas and wall decorations—harps, horseshoes, fans, etc., all of different varieties of flowers—made the work perfect in its way.

The *Times* was represented by a large floral newspaper, the columns being of geraniums and roses, the column-rules of cypress, and the heading of white daisies. It was a very handsome and unique design, and brought much credit to the ladies who wrought it.

A piece universally admired was Mrs. Kirkland's bank of roses. This began at the floor with roses of a dark maroon color, above which roses of a less brilliant hue were gradually introduced, until the bank faded at the top in pure white.

Elegant and elaborate was the "Throne of Pomona," upon which posed the lovely goddess, in becoming apparel, beneath a pendent canopy of roses.

The "Pagoda" in the center of the hall attracted a deal of notice. It was of octagon form, about five feet through and six feet to the eaves, terminating in a cone-shaped roof with a Japanese umbrella on top. Flowers of all shades and colors were used in its make-up, and within was a huge Japanese urn filled with calla lilies.

In the special "Rose Booth" could be seen nearly 300 varieties of labeled roses.

There were plenty of other designs and displays well worthy of mention; but we must cut short our account by stating that receipts and donations amounted to $585.

Santa Cruz.

The City of the Holy Cross is famous for its wealth of flowers, and one of the most brilliant festivals of the season was that which opened at Santa Cruz May 11th, under the auspices of the Development Association, and closed a six-days' course triumphantly.

The entrance to the great pavilion was made through what seemed to be the butt of a giant redwood, in which a doorway had been hewn, and then a scene of bewildering beauty burst upon the view.

The seven "Rainbow Booths" along the west side of the hall were immediately attractive. First was the yellow booth, where tea-roses prevailed, and a stile of Safranos had to be turned ere one could enter to inscribe his name in the visitors' register and inspect the various floral treasures. The front of the red booth was made with three open arches, decked with scarlet geraniums, while within were banks of red poppies, crimson roses and scarlet passion-flowers. In the orange booth, draped and curtained as became its title, there was a pyramid of Santa Cruz oranges, and nasturtiums and marigolds abounded. The keystone of the rainbow arch was the green booth, representing an overhanging cliff covered with ferns and mosses, and beneath it a grotto where flowed lemonade pure and simple. Above this refreshing spring was the legend: "Far hence be Bacchus' gifts." In the blue booth forget-me-nots and bachelors' buttons prevailed. Pink is not usually reckoned among the colors of the rainbow, but the panels of Homer and Hermosa roses, the fire-screen of 12 varieties of roses, the hawthornes and azaleas, made the pink booth fascinating. Lastly, the violet booth was very dainty, with its heliotropes and pansies and cages of song-birds. The booths were all more or less adorned with mottoes, and the charming ladies in charge were quaintly and becomingly costumed.

The Watsonville booth was greatly admired for its many artistic designs and choice, though bounteous, blossoms, to say nothing of the fair attendants. Among its features were a pyramid of 800 rosebuds in the center, an orange tree, from which they were selling fruit continually, and a swan, emblematic of Pajaro, carrying "Watsonville" in its beak.

The Garden City booth, where ladies of the Horticultural Hall Association were assisted by Mr. Bourguignon, was thus described in the *Courier-Item*: "Around two sides stand broad tables of moss, in which are half imbedded clusters of named roses, each specimen perfect of its kind. There are over 300 different named varieties of roses in this collection. In the center of the background stands a pedestal, banked with roses, the top being of moss buds, supporting a model of the great Lick telescope, wrought in vari-colored carnations and ferns. In the corner next is an inclined bank, where are seven feet by three of solid roses of many varieties and tints. A similar smaller bank on the opposite side supports one of the pink rose-wagons used with such good effect in the San Jose Fair, and above all, on a background of evergreen, is lettered in flowers 'San Jose.'"

The floral stores were replenished and renewed from time to time, and thus the recurring beholder found fresh surprises of delight.

In "Wonderland" booth, the little folks, under a loving leader, wrought wondrous things in the way of fernery, rockery, scenes from Cinderella, etc.

The "Conservatory" was a fairy bower, where a fountain was playing among choice exotics. Here, too, were shown over 50 species of wild flowers, gathered in and about Santa Cruz.

The "Farm and Orchard" booth, maintained by the *Daily Surf*, was in the shape of a log cabin, where the Eastern tourist might marvel at the display of cherries, apricots, peaches, grapes, apples, almonds, oranges, lemons, figs, quinces, nectarines, plums, gooseberries, currants and strawberries in all their glory.

Among the almost countless floral pieces was one from Reynolds Post, G. A. R., representing a miniature camp, its tents covered with smilax, a pot of beans by the fire, etc. Then there was Bunker Hill monument in La Marque roses, all cut from a single tree, with the name in scarlet geraniums.

Time fails us to tell of the Jap. tea-house and the New England kitchen, the dairymaids, the picturesque parade of the gypsies from Wonderland, and the visit of delegates to the Y. M. C. A. Enough to say that but one thing was lacking out of all the things that grow in Santa Cruz county—namely, poison oak—that the net proceeds were $1200, and that the fair's success surpassed the fondest expectations.

We hope next week to note the leading features of the flower festivals recently held at Santa Ana and San Buenaventura.

The Commencement Season.

Graduating exercises have come off, the past fortnight, at a number of the leading seminaries, especially in Oakland, the performances succeeding each other, as some one remarked, like a series of educational earthquake shocks.

On Thursday evening, May 19th, the friends of

Snell Seminary

Had occupied every seat in the spacious First Congregational Church of Oakland, when at 8 o'clock the doors were shut and locked to prevent a crush. The decorations of roses, ferns, evergreens, etc., were elegant and tasteful—the class motto, "Who Speaks Sows, Who Listens Reaps," in pink roses, having the place of honor. The principals, R. B. and Miss Mary E. Snell, Rev. J. K. McLean, D. D., and 14 candidates for graduation sat on the platform.

The young ladies delivered their compositions with a self-possession, clearness and grace that did great credit to their training, the reading being interspersed with music, and plaudits general and generous. When the valedictorian had ended, Rev. Dr. McLean briefly addressed the class, and Mr. Snell conferred their diplomas upon Hope Lillian Bliss, of Carson City; Jennie Clarissa Baldwin, of Danville; May Louise Dewey Baldwin, of Santa Cruz; Charlotte Louise Collins, of Oakland; Ida Frances Fox, of Oakland; Isabelle McCracken Fuller, of Honolulu, H. I.; Mary Eliza Hatch, of Suisun; Mary Luella Inman, of Livermore; Lucy Baker Knowland, of Alameda; Mary Emma Miller, of Dixon; Mary Elizabeth Perry, of East Oakland; Emma Julia Remillard, of Oakland; Laura Rosenberg, of Oakland, and Mabel Evelyn Williams, of Carson City, who constituted "the largest class ever graduated from any private institution in Oakland."

The commencement and oratorical contest of the

Sackett School

Were held the same evening, at Hamilton hall, in the presence of a large audience. The program consisted of declamations for prizes, and vocal and instrumental music, followed by a valedictory oration by H. S. Burdick, on "What Constitutes a State?" Harry Smith Burdick, Henry Workman Keller, and Alex. T. Stewart took diplomas for the full English course; and Jerome Leo Park, who had pursued a special course, received a corresponding certificate.

The commencement exercises of

Hopkins Academy

Were held the morning of Friday, May 20th, in Plymouth avenue church, Oakland, which was tastefully decorated for the occasion, and well filled by friends of the school and of its pupils. The members of the graduating class, namely, J. E. Coleman, of Grass Valley, E. F. Goodyear, of Oakland, J. G. Howard, S. F., H. F. Jones, of Vacaville, S. C. Mastick, of Alameda, E. S. Shanklin, of Sacramento, Walter Sink, of Cloverdale, and E. T. Wolcott, of Antioch, spoke their several parts—orations, addresses and essays—Jones being the class poet and Goodyear the valedictorian. Rev. Dr. McLean presented the diplomas, and Rev. H. E. Jewett, the principal, awarded the gold medals—one for excellence in mathematics to E. F. Goodyear, of the graduating class, and one for excellence in Latin to Norman Livermore, of the senior middle class.

After the exercises at the church the students, teachers, trustees, and friends held a pleasant reunion at the academy, where a bounteous collation was served. The school has enjoyed great prosperity during the past year, 60 students being in attendance.

The exercises at the

California Military Academy,

Also held on the morning of the 20th, embraced orations by Cadets A. H. Niedenhofen, M. E. Reed, F. H. Sharp, E. A. Stockton, and C. S. Wieland, as well as music and declamations. The graduates were addressed, and with a few parting words, Colonel O'Brien presented their diplomas.

The First Congregational Church, of Oakland, was again crowded the evening of the 20th, with those interested in

Field Seminary

And its students. The class motto, "To Be, not to Seem," appeared in pure white roses on the curtain across the organ alcove, and all around were lovely adornments of bloom and greenery. The names of the candidates for graduation and the titles of their essays follow: Salutatory, Unequal to Equal, Emma E. Cable; Diaries, Bertha L. Rickey; Alps of Thought, Lily B. Cockrill; Fountains by the Wayside, A. Lizzie Henry; Why? Mabel E. White; Influence of Poetry, Bessie G. Meserve; Scenes from Shakespeare, Anna M. Simpson; Failures, Christine F. Rongstoff; Valedictory, To Be, not to Seem, Kate L. Cornwell. Music, instrumental or vocal, after every second or third essay, varied the program, and the nine fair damsels read their parts with pleasing effect to an audience that lost no opportunity of expressing its kindly approval. Subsequent to the commencement exercises, a very pleasant reception was held in honor of the newly-graduated alumnæ.

The ceremonies incident to the season at

Mills College

Began Sunday afternoon, the 22d, with the baccalaureate sermon by Rev. C. C. Stratton, D.D., president-elect. Entertainments social, gymnastic, rhetorical and musical, succeeded on Monday and Tuesday; and the climax of concluding exercises was reached on Wednesday in Commencement proper.

The hall was beauteous and fragrant with flowers. The 20 graduates were simply dressed in white, without jewelry. Each had prepared an essay, but only a portion of them were read. Rev. Dr. Horton, acting president, addressed and presented their diplomas to Marie E. Ballard, Carson City, Nev.; Mary L. Davis, Helena, M. T.; Mary A. Faull, San Francisco; Minnie C. Fogg, Oroville; Fannie P. Freeman, San Diego; Belle W. Garber, Berkeley; Lizzie A. Harp, Modesto; Helen L. Hurd, Fresno; Louise L. Jacks, Marion M. Jacks, Monterey; Lillian M. Kimball, Westport; E. Isadore McGraw, San Francisco; Mary E. Newton, Alameda; Mary Paulsell, M. Jeanette Paulsell, San Jose; M. Alice Thompson, Woodbridge; Grace A. Wachhorst, Sacramento; Roberta Wilson, San Francisco; Jessie Lee Woods and Mary L. Woods, Stockton.

After the benediction, the guests were regaled with a lunch.

It is announced that Dr. Stratton will close his work at San Jose early this month and remove at once to Mills college, which begins the new year "with a president of great educational experience, a united Board of Trustees and large and growing financial resources."

The Wheeler Cannery Co.

The Wheeler process and appliances for home and orchard canning are widely known. There have been some hindrances to the introduction of the process, as is likely to occur with any new device. Many accessories had to be arranged and manufactured, and this may have occasioned some delay and vexation, but we never heard of anything which militated against the process itself nor the value of its products. In fact fruit has been put up by it every year since its first announcement, and some of the finest canned fruit we have ever seen has been that made with the Wheeler apparatus. Recently, we understand, the business features of the process have been cast anew by the organization of the Wheeler Cannery Co., of which Mr. Joseph Perkins is secretary and manager, and an establishment has been opened at 116 California street, S. F., where full information concerning the Wheeler cannery and its use can be obtained. We have just received a neat 12 page pamphlet issued by the company, which gives statements of much interest concerning the Wheeler process, and quotes rates for the *rental* of the cannery, for it is announced that no outfits are for sale. Quotations are also given of the Wheeler fruit jars, cans, labels, solder, etc. It seems to us that the announcement is worthy of investigation by those who expect to have a surplus of fruit which they desire to turn to practical account either for their own use or the market.

HOLSTEIN-FRIESIAN.—We have received a few catalogues of the stock from Ontare Ranch, Santa Barbara, to be sold at auction by Killip & Co., June 16 h, at Oakland Trotting Park. Copies may be had on application at our office.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to anyone who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

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HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

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R. H. CRANE, Petaluma, Cal., breeder and importer. South Down of Long John Wentworth herd for sale.

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Holstein-Friesian Cattle,

Standard-Bred Trotting Stallions,

French Coaching Stallion,

—AND—

Clydesdale Stallion,

—FROM—

Ontare Ranch,

Santa Barbara County,

AT 1 P. M. ON

THURSDAY, JUNE 16th,

—AT—

OAKLAND TROTTING PARK,

SHELL MOUND STATION.

On the above date, by direction of C. F. Swan, Esq., Manager of Mr. F. T. Underhill's Ontare Ranch, Santa Barbara county, we will sell his famous herd of Thoroughbred Holstein-Friesian Cattle. It comprises fifty-seven head and includes the Premium Cattle exhibited at the California State Fair and the various District Fairs throughout the State.

Also, Three Standard-bred Trotting Stallions, 5 and 2-year olds, an Imported French Coaching Stallion, 5 years old, and a Clydesdale Stallion 3 years old.

☞The sale will be entirely without reserve, other disposition having been made of the ranch.

Catalogues will be ready June 1st.

THURSDAY, JUNE 23d,

AT 1 P. M., AT

Agricultural Park, Sacramento,

Great Combination Sale of

40 Head Thoroughbreds,

Comprising drafts from Breeding Farms of

THEODORE WINTERS,
W. L. PRITCHARD,
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A Specialty for Stable and Farm, is Booming. Why? Because it has greater merits than any other remedy and ten times cheaper. Order one quart or one gallon. Price, $1 per quart, $3 per gallon, making half a gallon and two gallons of Lotion. Money refunded in all cases of dissatisfaction. Ask your Druggist to get it for you. Send for reliable testimonials.

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OF IMPORTED AND NATIVE-BRED

GALLOWAY CATTLE

ON JUNE 10th and 11th,

At GEO. L. GOULDING & CO.'S City Stock Yards, Denver, Colorado.

LEONARD BROS., of Mt. Leonard, Mo.,

—AND—

BUSH & MORSE, OF WINDSOR FARM, DENVER, COL.

Will hold a joint public sale of **Imported and Native Bred Galloway Cattle.** The lot consists of 100 head of males and females of the choicest breeding and individuality, embracing selections from four different importations by the Leonards, who (it is a well-known fact) brought over only the best that money could buy and careful judgment select. Most of the cattle offered by Bush & Morse, of the Windsor Farm, are direct descendants of the stock imported by the Leonards, who, in breeding the same, combined some of the best strains of blood in their herd. It is once in a lifetime that such an opportunity is offered to the public of purchasing such a splendid lot of cattle, and the undersigned feel no hesitancy in endorsing what is claimed for them—"that they are the finest lot ever offered at public sale in the world." The fact that they were all imported or bred by the Leonards is sufficient guarantee that the stock is as represented—"the very best that can be found." Nearly all the young stock are by the famous sire, "British Nero," 1877, and the females are bred to that grand bull, "Borderer of Drumlanrig," 2628, whose cut appears above.

In the breeding are found such popular strains of blood as represented in the tribes of Drumlanrig Semiramis, Lady Satnley, Forest Queen, etc., embracing such famous sires as Black Prince of Drumlanrig Harden, Moss Trooper, Montague, Scottish Borderer, Pretender, Guardsman and others equally noted for their show-yard careers and the grand quality of their get

All necessary assistance will be furnished to buyers from a distance in loading and shipping their stock. Terms of sale, cash, or four months approved paper bearing 8 per cent interest. Catalogues furnished on application.

GEO. L. GOULDING & CO.

COL. S. A. SAWYER, Auctioneer.

NOTE.—During the sale there will be on exhibition some steers and bulls bred from Thoroughbred Galloway Bulls out of Shorthorn Cows. Cattlemen will be able to judge for themselves as to the result of the cross.

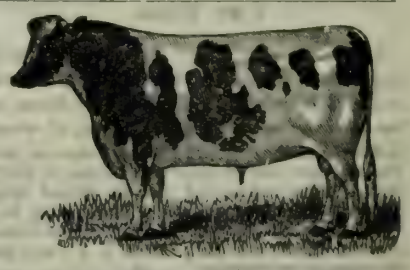
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Heifers in Calf in such grand bulls as Netherland Star, Clifden Prince (Holstein) and Ashantee's Sultan (Jersey) for sale at reasonable prices.

Also POLAND-CHINA and BERKSHIRE PIGS.

POULTRY—All Varieties.

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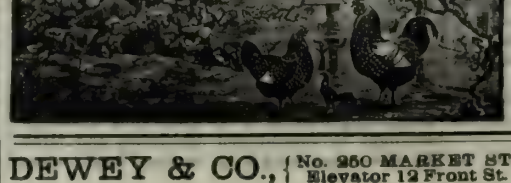


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Clean sweep on Plymouth Rock Chicks Great California Poultry Show at San Francisco, Jan. 11th to 16th, 1886. The Best is the Cheapest. Illustrated Catalogue sent free on application; worth $1 to any breeder of poultry. Send me your name on a Postal Card; 5000 copies of fine Illustrated Catalogue for free distribution.

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Awarded the Gold Medal at the State Fair, Sacramento, and at the Mechanics' Institute Fair of 1884 1885 and 1886, overall competitors as the best machine made. It will hatch any kind of Eggs better than a Hen.

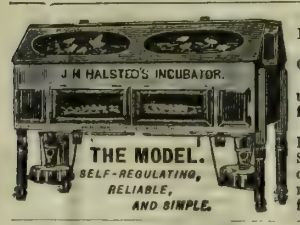
Pacific Coast Agency for the celebrated Silver Finish Galvanized Wire Netting, The Wilson Bone and Shell Mill, and the American Meat Chopper. Poultry appliances of every kind and every variety of Land and Water Fowl can be found at the Oakland Poultry Yards, the oldest and largest establishment on the Pacific Coast. The Pacific Coast Poulterers' Hand Book and Guide; price, 40 cents. Send 2-cent stamp for illustrated 60-page catalogue to the PACIFIC INCUBATOR CO., 1317 Castro St., Oakland, Cal

THE PACIFIC EGG FOOD.



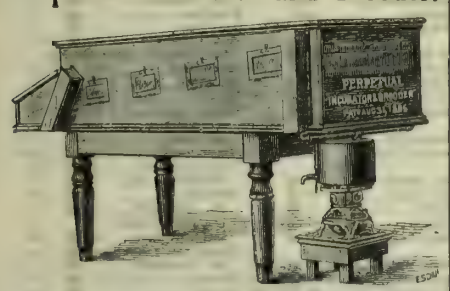
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THE
Perpetual Incubator and Brooder.



The most successful "business" Incubator ever invented.

The only Incubator in which eggs can be introduced daily and hatch successfully.

Requires no heat "regulator." The heat is scientifically graduated to suit the different periods of incubation.

Three sizes made, viz.: 1, 2 and 3 dozen eggs per day. Send for circular to

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IN ITS GREAT RANGE OF WORK IT STANDS WITHOUT AN EQUAL.

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At SACRAMENTO, Cal., Sept. 12 to 24, 1887.

$2000 in Cash for County Exhibits.

SPECIAL ATTENTION OF THE FARMING COMMUNITY

Is called, as well as the various Immigration Societies, Boards of Trade of the several Counties, and all others interested in bringing out the resources of their respective Counties, to the advantages offered by an Exhibition at the

STATE FAIR

Of the varied products of their counties. The supervisors of each county are invited to make a liberal appropriation, sufficient to pay the expenses of getting together an Exhibition of County Products. Premiums received can be returned to the treasury of each county making the appropriation, so that their respective counties would be written up and advertised at a small expense by an exhibition of this character. The Railroad Company transports the same free of charge.

THE LIVE STOCK EXHIBITION, connected with the State Fair, is sure to attract Eastern visitor anxious to view the resources of California.

APPLY FOR SPACE AT ONCE, as the Society is willing to devote the entire exposition building, if necessary, to displays of CALIFORNIA PRODUCTS. A NEW FEATURE has been added to the Premium List this year, in the shape of awards for a **Sheaf Display of Cereals.** Forty Sheaves, not less than 10 inches in diameter, of 10 varieties of grain are called for. Not necessary to be grown by exhibitor. Notice is now given that samples may be gathered during harvest, and laid away for exhibition. Address the Secretary for Premium Lists and other information.

EDWIN F. SMITH, Secretary. L. U. SHIPPEE, President.

SAN JOAQUIN VALLEY ASSOCIATION
District Fair, 1887.

To Be Held Immediately After the Close of the State Fair, Commencing Sept. 27th and Continuing 5 days at the Fair Grounds and 11 days at the Pavilion.

NEW PAVILION.

A Large Exhibition of Field and Fruit Products.

HORTICULTURAL and MECHANICAL DISPLAY.

Live Stock Features to be Extended

AND INDUCEMENTS FOR BREEDERS

To Bring Animals from all parts of the Pacific Coast.

The Largest Purses Ever Offered at a District Fair for Speed Program and Premiums—Over $20,000.

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INSURE YOUR GROWING GRAIN

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IN THE FIREMEN'S FUND OF CALIFORNIA.

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A. BLATCHLY, manufacturer of all kinds and sizes of Driers, from the smallest Family Stove Drier to the huge Raisin Drier, holding 100,000 pounds of fruit at a charge. Also, all Machinery required in building Driers, as Steam Engines and Boilers. Steel Fan Wheels—the strongest and lightest running made Heaters—a great variety. Iron and Wooden Cars of all sizes, with wheels running equally well on a track or floor. Trays, large or small, with Wood, Metal or Wire Cloth Bottoms. Car Tracks, Thermometers, Hygrometers, etc.

RAISIN DRIERS A SPECIALTY.

Being the first to make in Fresno, in 1884, a machine-dried Raisin that sold for as high or higher price than the sun-dried, and having the experience of the last three years, renders it possible to build a Raisin Drier guaranteed to be superior to any now in use in cheapness and efficiency. Estimates and prices furnished on application to

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THE EUREKA IMPROVED

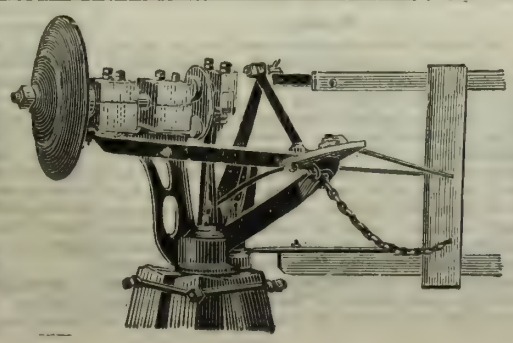
Is offered to the citizens of California as the **Most Perfect Windmill in Use.**

The Simplest, Strongest, most durable, easiest controlled and cheapest ever offered to the public by the inventor of the Cyclone, Saunders, Hercules, Eureka. It is a recent invention, combining the best points in windmills, after years of experience. AGENTS WANTED in every town on the Coast, to whom a liberal commission will be allowed. A discount will be allowed on the first order from places where there is no agent.

PRICES:

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14-ft.	75 00	18-ft.	120 00
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NON-POISONOUS SHEEP DIP!

Mixes instantly with Cold Water.

LITTLE'S CHEMICAL FLUID.

Price, $1.25 per Imperial Gallon.



Sold in iron drums containing 5 imperial gallons, equal to nearly 6 American gallons. One gallon mixed with 60 gallons of cold water will dip thoroughly 180 sheep, at a cost of less than one cent each; easily applied; a nourisher of wool; a certain cure for scab.

LITTLE'S PATENT POWDER DIP!

Poisonous!

Mixes instantly with water; prevents the fly from striking. In a 2-pound package there is sufficient to dip 20 sheep, and in a 7-pound package there is sufficient to dip 100 sheep Price, **17 cents** per pound.

CATTON, BELL & CO.,

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406 California St., S. F

S. F. Market Report

NOTE. Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 1, 1887.

A hot wave passed over the State on Friday and Saturday last, but owing to its short duration no great damage was done to crops. Cooler weather following almost immediately afterward and continuing up to this writing, has helped no little the growing grain crop. The European wheat market gained in strength throughout the week, closing today as follows:

LONDON, June 1.—Cargoes off coast, nothing offering; cargoes on passage and for shipment, quiet; Cal. wheat just shipped, 40s 6d; Cal. wheat nearly due, 40s 3d; French country market, firm; Liverpool wheat, spot, inactive; Liverpool wheat, Cal. 7s 10d to 8s 1d.

The British Grain Trade.

LONDON, May 31.—The *Mark Lane Express*, in its review of the British grain trade during the past week, says: The values of English wheat have hardened. Supplies are meager and prices have advanced. Sales of English wheat during the week were 45,198 quarters at 34s 6d, against 59,260 quarters at 32s 5d during the corresponding period of last year. Flour is very firm despite large receipts from America. Foreign wheat is slow and values are steady. Corn is quiet and in buyers' favor. Barley is dull. Oats were rather cheaper. Linseed advanced 1s.

Eastern Wheat Markets.

NEW YORK, May 29.—The close was weak at a slight recovery, May and June, 96⅞c, July 96¼c, August 94c, September 93⅛c, and December 96¾c.

CHICAGO, May 31.—The wheat market, being in the hands of the combination, presented no new features this morning. The first hour was marked by activity, and on the strength of enormous receipts there was a desire to sell, especially in June. This future would have taken a dip, but the clique have set 88@89c as the bound beyond which it must not pass at present. July had a more natural action, opening at 85½c, selling up to 85⅝@85⅝c. Deferred futures were in sympathy. There is no open evidence that the clique is packing up July, but in all likelihood it is.

NEW YORK, June 1—12 M.—97½c for cash, 97c for June; 96⅛c for July, 93¼c for August and 93¼@93⅜c for September.

CHICAGO, June 1.—To-day being the first of the month, the opening hour on 'Change was devoted to the delivery of June wheat. The clique houses took nearly all the wheat delivered, but it is stated on good authority that they did not get more than one-eighth of the wheat due them. About 2,500,000 bushels were transferred this morning and it is estimated the clique houses took in yesterday about 1,500,000 bushels in large blocks, to avoid a rush this morning. The office deliveries were large, as none of those who were short cared to have it known. The clique practically got all the wheat there was. At 1 P. M. wheat was stronger; cash, 89c; July 86⅜c; August, 83⅞c.

Crops at the East.

CHICAGO, May 29.—This week's *Farmers' Review* will say: Our reports indicate that local rains throughout the Western States have broken up the drought more or less. An improved condition of affairs in relation to the winter wheat crop is noticeable in Indiana and Ohio, and while other States have suffered from lack of rain, it seems probable that, should present conditions continue, the damage will be less than anticipated. More rain is generally needed except in the Southern States. As regards winter wheat, 23 counties in Illinois report the average condition at 83 per cent; 14 Indiana counties report the average condition at 87 per cent; 11 Ohio counties report the average condition above that of last week, and the prospect for a crop is much better. The condition is placed at 88 per cent in seven Michigan counties reporting. Counties reporting from Wisconsin this week give 75 per cent. The condition in Missouri is promising. Ten counties in Kansas report the condition of winter wheat at 68 per cent of the average. Complaints are numerous of drought and bugs. Hail killed most of the crop in Clay county, May 22d. Spring wheat in Minnesota is reported as good; Iowa promises to have a good crop. Seven Nebraska counties report the condition of spring wheat in that State at an average of 91 per cent.

Eastern Wool Markets.

BOSTON, May 28.—The week's transactions showed a better movement, especially in domestic grades. The market is firmer for medium wools of all kinds, while other grades are no higher, and there is a steadier feeling, resulting from the condition of the Western markets. Medium wools have been some time in small stock and are needed by manufacturers. New wools arriving find ready sale; buyers are obliged to pay full prices, and there seems to be a general feeling that the turn of the market is at hand. With the exception of medium wools, however, prices are as low now as at any time for six months. Quotations are several cents behind prices already mentioned in the country. In Territory wools there has been very little doing. Raw spring Texas wool has been arriving and meets with some demand. In most cases bids have been under the views of holders. Oregon wool is in fair demand at about previous prices. California wool has been quiet. Among the sales were 22 000 lbs California spring at 18@19c; 102,000 lbs California fall passed at 12c; 161,000 lbs Eastern Oregon at 17@24c; 49,000 lbs Territory at 17@25c.

BOSTON, May 31.—The demand continues for fine wool, and medium grades are active and firm. Blood wools are quoted at 34@35¼c; medium new spring Texas, 27c; fine do, 22@23c. Other grades are unchanged.

NEW YORK, May 28.—Neither buyers nor sellers are showing much energy. Sales, however, are fair, considering the season and the condition of the market. Among the sales were 2000 lbs scoured California at 45@56c; spring California at 18c; 5000 lbs Territory at 19c.

The Philadelphia market is quiet and stock small. Among the sales were 1000 lbs Territory black at 18c; 5000 lbs Territory fine at 20½@22c; 5000 lbs fine medium Territory at 18c; 3000 lbs Territory fine fat sheep at 21½c; 6000 lbs Territory fine heavy at 19c; 15,000 pounds Territory quarter at 27@30c; 1000 lbs medium Montana at 24c.

NEW YORK, May 31.—Wool is quiet but steady. Domestic fleece, 30@37c ₱ lb; pulled, 14@34c; Texas, 9@24c.

PHILADELPHIA, May 31.—Wool is quiet and unchanged.

California Fruit in Chicago.

CHICAGO, May 28.—The orange market is firmer. The demand is moderate for choice, but common lines are quiet and a little slow. California Bright Riverside, good to fancy, $3.25@4; San Bernardino, $3.25@4; Santa Ana, $2.90@3.25; St. Michael paper rind, $3@3.75; Orange, $2.50@2.75; Los Angeles, $2.50@2.75; Navel, according to quality, $3@4.50; San Gabriel, $2.50@3; Blood oranges, fancy, $4@6; culls, $2. California lemons were selling moderately at $2.50 ₱ box. California apricots, in 20-lb boxes, $2.75@3 ₱ box. California cherry-plums were bringing $2.50 ₱ 10-lb box. There was an ample supply of Southern sour cherries. The demand as yet is only moderate; boxes of 6 lbs of fancy large, white, nearly equal to California, sold at $1. California Black Tartarians, in 10-lb boxes, sold at $2@2.55 for choice sound, and soft ranged down to $1.

In the dried fruit market a steady feeling prevails. New peaches are salable and firm, but none are to be had. Old peaches are offered, but dull. California dried fruits are steady and firm, and in rather light supply. Plums, pitted, ₱ lb, 11@12c; raisins, London layers, 20-lb boxes, ₱ box, $1.50@1.75; loose Muscatel, ₱ box, $1.25@1.35; California layers, ₱ box, $1.25@1.35.

Dried Fruit and Canned Goods East.

NEW YORK, May 29.—In canned goods there is a fair trade, and the tone is generally firm at unchanged prices.

Dried Fruits—Raisins are quiet at previous quotations.

California Products at New York.

NEW YORK, May 29.—Beans—California steady at $1.80.

California cherries, 50 cents a lb.

Mustard continues to attract attention, with sales of 5000 bags of yellow California at 4½ cents, and 250 bags of brown at 5¼@5½ cents.

New York Hop Market.

NEW YORK, May 29.—The demand continues very good, running almost wholly on fine quality of 1886, Germans and Pacifics, and 1885 States. Inquiries by mail and other signs go to show that brewers have less abundant supplies than has generally been reported. Holders of the goods wanted are therefore very firm in their position, and in not a few instances refuse prices at which they would have sold a week ago. There is no rush to buy, however, nor anything outside of an ordinary seasonable demand. In short, the firmness is but a natural reaction from the late low prices. Coast crop, 1886, best, 19@20 cents; same, common to good, 13@17 cents; 1885, good to prime, 7@10 cents.

Local Markets.

BAGS—Quite a movement of a speculative character has been started, but who is running it and to what extent it will be successful are problematical. Sales are reported at 6@6½c for standard Calcuttas.

BARLEY—Owing to the delivery of about 16,000 tons on season contracts, the bears hammered options down, but the decline was not as much as was expected, showing that strong buyers are in the market. Transactions the past week on Call were large. To-day's sales were as follows:

Morning Session: Buyer 1887—300 tons, $1.19; 100, $1.18¾; 200, $1.18¾; 200, $1.18⅝; 500, $1.18½. Seller 1887, new crop—500 tons, $1.09½; 200, $1.09 ₱ ctl. Afternoon Session: Buyer 1887—200 tons, $1.18¾; 300, $1.18½; 100, $1.18⅝; 400, $1.18¾; 400, $1.19; 1000, $1.19¼. Seller 1887—400 tons, $1.08¾; 100, $1.08⅞. Seller 1887—300 tons, $1.06 ₱ ctl.

BUTTER—The market is very strong for the better grades, with an advance established. Large shipments are being made on distant orders.

CHEESE—Receipts are free, but as the call is increasing the tone of the market is to-day steadier.

EGGS—Strictly choice eggs are wanted, but poor are neglected. Receipts appear to be decreasing.

FLOUR—Trade is reported to be fair at full prices, with the more favored brands strongly held.

WHEAT—The sample market is stronger, with ready buyers at quotations. Exporting for the season is quite free. Call Board transactions the past week were large, with slight fluctuations reported. Sales made on Call to-day were as follows:

Morning Session: Buyer season—100 tons, $2.12; 100, $2.12¼; 100, $2.12½. Buyer 1887—400 tons, $2.07; 100, $2.07¼. Seller 1887—700 tons, $1.83; 100, $1.83¼; 100, $1.83½. Buyer August and September—500 tons, $1.87½ ₱ ctl. Afternoon Session: Buyer 1887—100 tons, $2.07½; 200, $2.07. Seller 1887—100 tons, $1.34½; 900, $1.83; 200, $1.82⅞. Buyer August and September—600 tons, $1.87¼ ₱ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The general tenor of advices from Europe regarding wheat crop prospects is of a favorable character, but then the most trying time is yet to come. If the crops in Europe should be an average or even above an average, the marked reduction in stocks of old is of such a decided nature as to more than offset any increased yield. The statistical features of the situation verifying the above have been given in previous issues of the RURAL PRESS. Crop advices received from the Eastern and Western States are more favorable, owing to rains, still the general opinion prevails that the outturn will not be equal to last year's. Exporting from the Atlantic seaport continues on an extended scale, probably due to the wheat syndicate getting all their available supplies in position so as to feed the European markets up to August next, for shipments now made from India, Australia and this coast will not arrive out until after August. It is claimed that the carryover at the East into the incoming season will be quite light, not exceeding 30,000,000 bushels.

On Friday and Saturday last this State was visited by a hot wave, but owing to its short duration the damage done growing crops was light. The bulls on Call took advantage of it to advance the different options. The export movement from this State continues large for the season, giving currency to the belief that the carryover at the end of the season will not be more than an average.

It is claimed that all of 16,000 tons of barley were paid out the past week on seller and buyer season contracts. The knowledge of this quantity coming on the market caused timid operators to sell out their contracts held, and consequently the market is in a healthy condition, owing to the large concentration that has been going on. Prices did not recede as much as was expected they would at the close of the season, causing a more confidential feeling in the future. The barley crop was only slightly injured by the hot wave of last week, but then the outturn will not be much, if any, over 325,000 tons against 503,000 last year. The consumption is very large throughout the State; in this city alone it has grown to 5000 tons a month.

Oats are steady under moderate receipts and an inactive demand. Quite a number of consumers have substituted other feed.

Corn continues to hold strong, particularly the more choice grades. The crop this year in this State, it is claimed, will be below an average.

Feedstuff.

Hay of the new crop is not offering freely, causing a fairly firm market. The consumption this season promises to be larger than last, which if realized will create a scarcity, and higher prices later on. Choice old hay continues in demand, and fetches full prices; as high as $15 per ton was paid for something very choice.

In ground feed there is a good demand, but at unchanged prices. The consumption it is claimed is increasing, not only in this city but in the dairy districts.

Fruits.

The hot wave of Friday and Saturday last did not do any serious damage to the crops, owing to its short duration. Reports from some sections state that some fruit on the trees was cooked on one side, but then the percentage was light. The greatest fears are expressed about grapes, but so far as can be learned, no damage was done, but the cold wave a few weeks ago, it is claimed, did considerable damage, which will show itself later on in the season.

From the different fruit-growing sections there continues to be received advices of sales of the product of different orchards. Owing to the more active competition, horticulturists are asking an advance. The buyers are canners, driers, and shippers to the East.

In the local fruit market the changes for the week have been downward, under freer receipts. Cherries hold to strong prices for the season, as do strawberries. The first shipment of peaches of the season was received on Thursday last, and sold at 75 cents per lb. Apricots are coming in very freely, and sell for less money.

In tropical fruits there is nothing new to report.

Sour green apples are sent to this market. They are unsalable.

Dried fruits are very scarce, with no peaches or evaporated apples in the market. The Eastern markets are also reported to be lightly stocked, with a good demand ruling.

Choice raisins are scarce, and fetch full figures. The demand is light. Eastern advices report a strong market, with light stocks.

Mrs. M. A. Jackson, on the Sacramento river, sent the first pears this season to this market; Mrs. Pena, of Vacaville, the first Royal apricots, and F. N. Werner, of Winters, the first figs. The latter sold at $1 ₱ lb.

Live-Stock.

Bullocks have touched a lower figure than for several years past. The consumption of all kinds of meats, as usual at this season of the year, is light. Mutton sheep are fairly steady, as are hogs. In horses there continues a free demand for carriage, roadsters, and driving animals. Good prices continue to be paid for them. Work horses from Oregon have been arriving quite freely, but find ready purchasers at from $150 to $250 per head. The animals are well bred, being tractable and of good size, not too large or too small.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8c; first grade, grass fed, 7@7½c per lb.; second grade, 6@6½c; third grade, 4½@5¼c.

MUTTON—Ewes, 6c; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8½c; small, 6@8c.

PORK—Live hogs, 4¾@5c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4¾@5c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Hops.

The tone of the market is stronger, owing to an increase in the consumption by reason of the hotter weather and a better demand for beer. An exchange reports that 12½@17¼ cts have been paid for this year's hops for future delivery. A local authority estimates the coming crop of the Pacific Coast at 80,000 bales, against 57,000 last year. California has 4305 acres, Oregon 808, Washington Territory 2094, and British Columbia the remainder. The crop of California will be increased this year by about 450 bearing acres. In Washington Territory it will be increased about one-fifth. In Oregon it will be increased a little—in Marion county about one-fifth, while in other counties but little. The principal hop districts in California are in Sacramento, Yolo, Mendocino and Sonoma counties, and all through these yards are looking remarkably well. The lack of rain last year in Oregon made the crop 25 to 50 per cent short. Indications are that it will be very different this year. Hops are now worth from 15 to 16c ₱ lb, but there is no demand for export.

Vegetables.

String beans and peas are stronger for the better qualities. Canners are still cleaning up the market for peas.

The first green corn of the season was received from Vacaville and sold at 25 cts ₱ dozen.

Summer squash, rhubarb and asparagus are weaker, but green peppers are stronger.

Tomatoes under freer receipts are weakening off, with a lower range of values reported.

Summer squash from the bay counties are coming, and, owing to their freshness, sell at from 3 to 4 cts ₱ lb.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	259,564	250,456
In port, disengaged	109,426	30,824
In port, engaged	18 999	27,869
Totals	387.989	309,149

The above gives a carrying capacity as follows: 1887, 616,067 short tons; 1886, 495,033 short tons; increase over last year, 121,034.

There is a good demand for beans, both local and Eastern.

Wool continues to move off freely. There appears to be a general belief that overland freights will be advanced next month, and consequently all parties are shipping East as fast as possible. Choice clear wools are in fair inquiry.

New honey is coming in, but as yet receipts are light. Dealers are holding off until receipts grow larger. The East reports a good demand and light supplies.

The stock of nuts is very light.

Poultry is generally weaker, owing to a light consumption. Receipts are only fair.

Considerable mustardseed is being shipped to France.

San Francisco, June 1, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 1, 1887			
BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 75
Butter	1 75	@	2 25
Pea	1 80	@	2 15
Red	1 40	@	1 65
Pink	1 25	@	1 60
Large White	1 90	@	2 15
Small White	1 75	@	2 25
Lima	1 75	@	2 50
Mid Peas, blk eye	1 00	@	1 65
do green	1 00	@	1 15
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY			
California	5½	@	6¼
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	16	@	20
do Fancy br'nds	21	@	22½
Pickle roll	20	@	24
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	9	@	10½
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	18	@	19
do, store	16	@	17
Ducks	—	@	—
Oregon	—	@	—
Eastern	15	@	11
FEED			
Bran, ton	21 50	@	22 50
Cornmeal	25 50	@	27 50
Gr'd Barley ton	25 00	@	26 00
Hay	8 00	@	15 00
Middlings	23 00	@	24 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR.			
Extra, City Mills	4 70	@	5 45
do Country Mills	4 20	@	5 20
Superfine	3 45	@	4 20
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 17½
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 15	@	1 25
Yellow	1 10	@	1 20
Small Round	1 20	@	1 30
Nebraska	1 07½	@	1 15
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 25	@	1 50
Wheat milling,			
Gilt edged	1 85	@	1 90
do Choice	1 80	@	1 85
do fair to good	1 75	@	1 80
Shipping choice	1 80	@	1 87½
do good	1 75	@	1 80
do fair	1 70	@	1 75
HIDES.			
Dry	14	@	16
Wet salted	7½	@	8½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
do new	50	@	1 25
NUTS—JOBBING.			
Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	—	@	—
Early Rose	—	@	—
Guffey Cove	—	@	—
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	—	@	—
Humboldts	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	—	@	—
Peerless	—	@	—
Salt Lake	—	@	—
New Potatoes	50	@	1 50
POULTRY AND GAME.			
Hens, doz	5 50	@	7 00
Roosters	5 50	@	11 00
Broilers	3 00	@	7 00
Ducks, tame	5 00	@	6 50
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 00	@	1 25
do Goslings	1 15	@	1 65
Wild Gray, doz	—	@	—
Turkeys, lb	17	@	20
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9½
Medium	9	@	10
Light	10	@	11
Extra Light	11	@	12½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	12½	@	14
do Eastern	14	@	14½
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	10	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian Ryegrass	2½	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	2½	@	3
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	11	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW.			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	21	@	24
Sac'to valley	17	@	22
Free Mountain	21	@	26
N'hern defective	—	@	—
S Joaquin valley	12	@	17
do mountain	15	@	19
Cava's & Pfeiffl	15	@	19
Oregon Eastern	17	@	24
do valley	19	@	26
Southern Coast	10	@	16

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 1, 1887			
Apples, bx comm	50	@	75
do choice	75	@	1 25
Apricots, bx	45	@	1 25
Bananas, bunch	2 00	@	3 25
Blackberries, ch	—	@	—
Canteloupes, cr	—	@	—
Cherries white bx	35	@	75
do black bx	50	@	1 00
do Royal Ann	75	@	1 25
Cherry plums	50	@	75
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants dr	50	@	65
Gooseberries lb	1½	@	5
Figs lb	50	@	75
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	10 00	@	11 00
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	—	@	—
do pared	—	@	—
do evaporated	—	@	—
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	8	@	10
do French	8	@	12½
Zante Currants	8	@	—
Gooseberries lb			
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—

Limes. Cal. box.	75	@	1 50	Cal. Valencias..	1 25	@	—
Lemons, Cal., bx	1 50	@	2 00	do Layers	1 25	@	—
do Sicily, box.	4 50	@	6 00	do Sultanas...	1 25	@	—
do Australian.	—	@	—	Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.			
Nectarines. box.	—	@	—				
Oranges, Com bx	1 25	@	1 50				
do Choice.....	2 00	@	2 50				
do Navels.....	3 00	@	4 50				
do Panama...	—	@	—				
Peaches, lb.....	10	@	25				
do bask	—	@	—				
Crawfords, bx	—	@	—				
do bskt..	—	@	—				
do choice	—	@	—				
Pears bx	—	@	—				
do choice.....	—	@	—				
do Bartlett, bx	—	@	—				
Persimmons, fat, box.....	10	00	@12 00				
do Jap, bx.....	—	@	—				
Pineapples, doz.	4 00	@	5 00				
Pomegranates. b	—	@	—				
Prunes bx.....	—	@	—				
Quinces bx.....	—	@	—				
Raspberries dr..	1 00	@	1 50				
Strawberries ch.	3 50	@	7 50				
Watermelons 100	—	@	—				
DRIED FRUIT							
Apples, sliced, lb	5	@	7				
do evaporated	—	@	—				
do quartered....	—	@	—				
Apricots.....	13	@	15				
do evaporated	20	@	25				
Blackberries....	13	@	13½				
Citron.....	28	@	30				
Dates.....	9	@	10				
Figs, pressed....	5	@	6				
Figs, loose.....	3	@	4				

VEGETABLES.			
Artichokes. doz.	—	@	—
Asparagus ₱ bx.	50	@	1 50
do cultivated.	—	@	—
Okra, dry, lb...	15	@	20
do green box..	—	@	—
Parsnips, ctl....	1 50	@	—
Peppers, dry lb..	10	@	—
do green, lb..	10	@	12½
Pumpkins prton	—	@	—
Squash, Marrow			
do Summer bx	50	@	1 50
String beans lb..	2	@	4
Tomatoes box..	75	@	1 50
Turnips ctl.....	25	@	60
Beets, sk.....	75	@	—
Cabbage, 100 lbs.	75	@	1 00
Carrots, sk.....	35	@	—
Cauliflower. doz.	—	@	—
Eggplant, ₱ lb..	15	@	25
Garlic, lb	1½	@	2½
Green Corn, doz	15	@	25
do large box..	—	@	—
Green Peas, sk.	40	@	60
Sweet Peas.....	50	@	75
Lettuce, doz.....	10	@	—
Lima Beans lb..	—	@	—
Mushrooms. lb..	8	@	20
Rhubarb bx....	60	@	1 00

List of U. S. Patents for Pacific Coast Inventors.

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From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MAY 24, 1887.

363,573.—PRESSER FOOT AND GUIDE—J. F. Atherton, Portland, Ogn.

363,360.—VELOCIPEDE—E. Blossfeld, S. F.

363,365.—BALING PRESS—T. J. Corning, San Jose, Cal.

363,375.—WHIRLIGIG—J. Dupuy, S. F.

363,394.—SAFETY GUARD, ETC., FOR CABLE RAILROAD—W. Irelan, Sr., S. F.

363,467.—CIGAR BOX—D. H. Jaccard, S. F.

363,475.—LATHE ATTACHMENT—McCrosson & Hendry, S. F.

363,476.—LIFTING MACHINE—D. E. McKee, Potter Valley, Cal.

363,479.—HOSE REEL—Jos. Perkins, S. F.

363,686.—WHEEL CULTIVATOR—P. Scharbach, Silverton, Ogn.

363,489.—MUSIC-LEAF TURNER—W. E. Swett, S. F.

363,562.—ELECTROLYTE—A. C. Tichenor, S. F.

363,491.—COMBINED BEVEL SQUARE, ETC.—B. F. Van Amringe, Oakland, Cal.

363,703.—FIRE-KINDLER—C. Van Gulpen, S. F.

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PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. May 26-Jun 1.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.00	70	N	Fr	.00	86	N	Cl.	.00	76	S	Cl	.00	60	W	Cy.	.00	68	W	Cy.	.00	68	SW	Cy
Friday	.00	72	SE	Cy.	.00	88	N	Fr	.00	84	Nw	Fr	.00	76	SW	Fr	.00	76	W	Cl	00	68	SW	Cl.
Saturday	.00	78	Nw	Cl	.00	96	N	Cl	.00	92	Nw	Cl.	.00	93	NE	Fr	.00	80	SW	Cl.	00	66	SW	Cl.
Sunday	.00	80	Nw	Cl	00	104	N	Cl.	.00	88	SW	Cl.	00	63	W	Cl	.00	80	W	Fr	.00	66	W	Cy.
Monday	.00	76	Nw	Cl	.00	84	N	Cl.	00	76	SW	Cl.	.00	73	E	Cl	.17	78	SW	Fr.	.00	68	W	Cy.
Tuesday	.00	62	N	Cl	.00	90	N	Cy.	00	82	Nw	Cl	.03	63	W	Cl	.03	74	SW	Cy	.00	68	W	Fr
Wednesday	.00	62	N	Cl	.00	96	N	Cl	00	80	SW	Cl	00	62	W	Cy	.00	68	S	Cy.	T	70	SW	Fr
Total	.00				00				00				03				20				T			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature, Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours. Note "T" indicates precipitation inappreciable.

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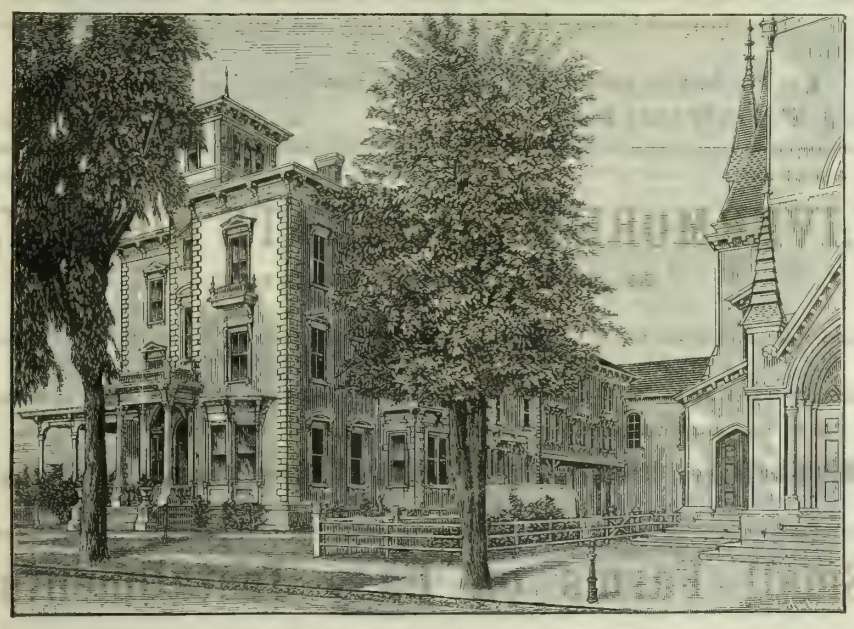
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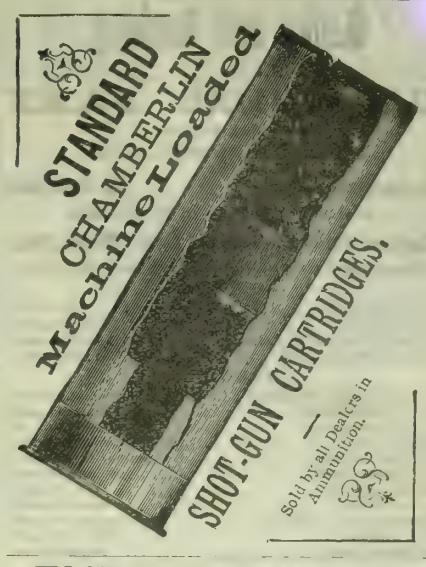
Losses paid to date, - - $78,612,829.46.

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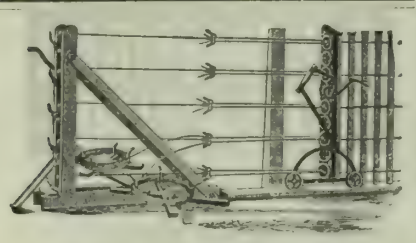
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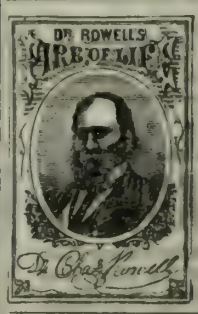
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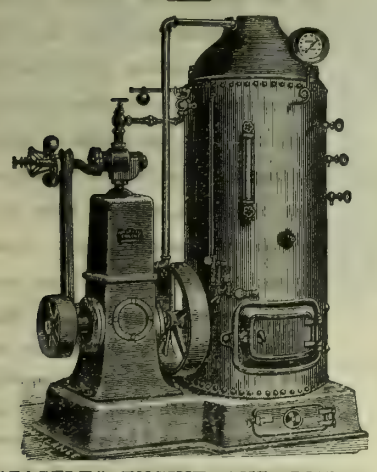
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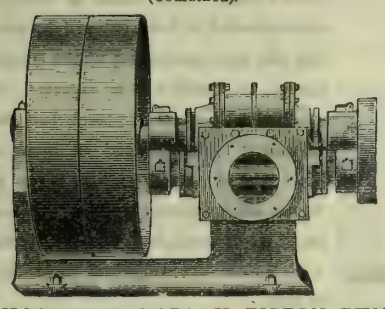
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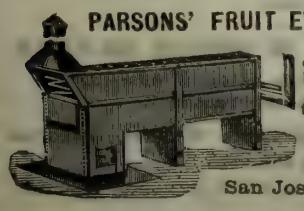
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Soluble Phosphoric Acid	12.90 per cent
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Potash	2.23 "
Ammonia	1.87 "
Nitric Acid	2.95 "

The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia**, therefore, total of Nitrogen calculated as **Ammonia**, 2.72 per cent.

This **Fertilizer** is a **Valuable Manure** for vineyards, orchards, gardens, farms, and I **recommend** its use by the cultivators of the soil **generally**, in **California.** Yours truly, DR. E. A. SCHNEIDER.

University of California, College of Agriculture.

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DR. J. KOEBIG, San Francisco—Dear Sir: I take pleasure in adding my testimony to that of Dr. Schneider as to the high quality of the **"Nitrogenous Superphosphate"** Fertilizer, analyzed by him at your request. It is a **high-grade article,** and as such returns the user a better money value than a low-grade fertilizer. It is **especially well** adapted to use in **California,** on account of the **predominance** in it of **Phosphoric Acid,** which is generally in small supply in our soils. Yet it is desirable that **"complete"** fertilizers be used in our orchards and vineyards, and **yours is of that character** in furnishing Potash and Nitrogen as well. Very respectfully,

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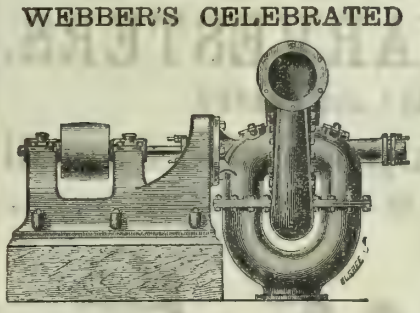
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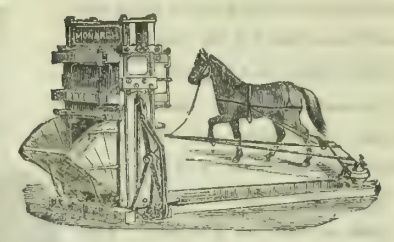
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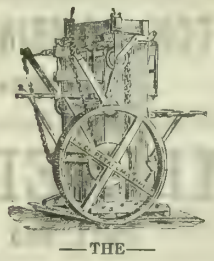
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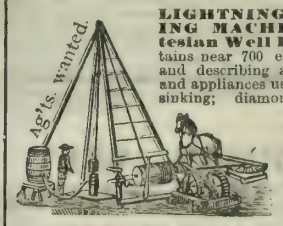
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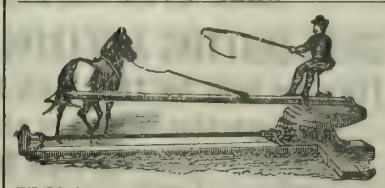
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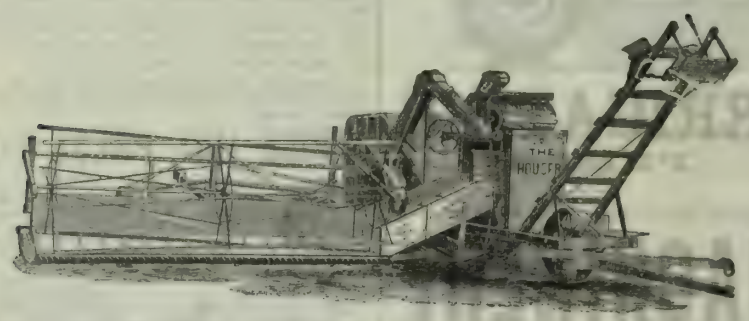
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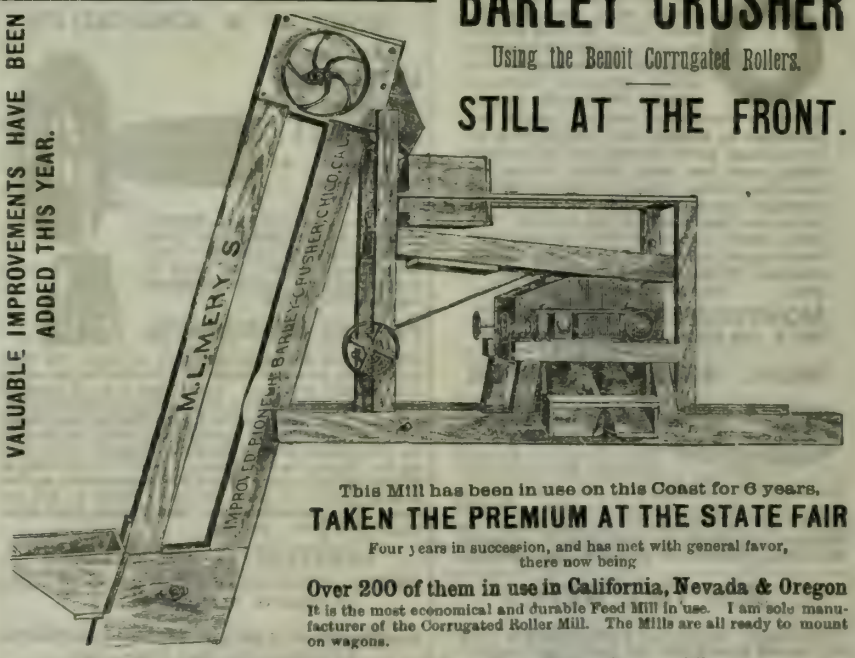
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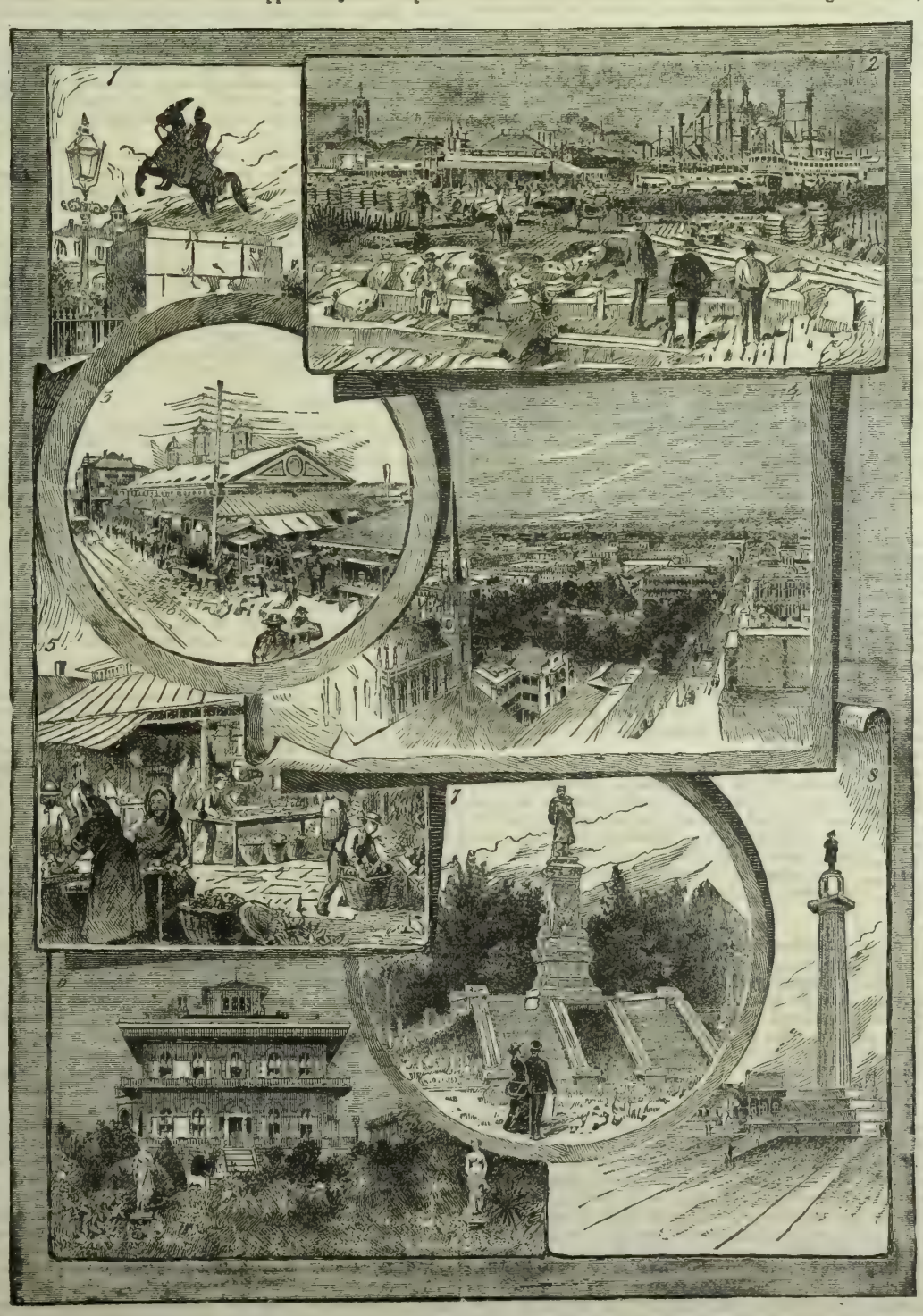
In the Crescent City.

The kinship which has sprung up between the Gulf States and California, because of the propinquity in point of time by the Sunset route, warrants us in a passing glance at some of the notable points of interest in New Orleans, the metropolis of the gulf coast. New Orleans figures in a Californian's schedule when he "goes East," it is proving a good market for a number of California products, and in general is entitled to a better acquaintance within our borders.

The engraving on this page is reproduced from Major Truman's work, "From the Crescent City to the Golden Gate," and presents several of the best known municipal establishments and monuments. Following the numbering which the artist has introduced in his sketches, 1 is the Jackson statue; 2, the famous levee, the scene of the immense traffic by water which the city enjoys; 3, the French market of which 5 is an interior view; 4 is a glimpse of the city; 6 is a building of the Jockey club; 7 is the soldiers' monument, and 8 is the statue of Robert E. Lee.

From Major Truman's description of the city, we take this paragraph: The town is built on a crescent-shaped tract of land formed by a bend in the Mississippi river, which has given it the name of the Crescent City. At this point the sun seems to rise west of the river. It was first settled in 1718, by a small French colony, under Bienville, and named in honor of the Duke of Orleans. Commerce was first opened with Great Britain in 1764. The Spanish took possession in 1769. The first Americans settled there in 1789. Louisiana went back to France in 1801. It became the property of the United States in 1803. General Jackson arrived in New Orleans on December 1, 1812, and defeated the British on January 8, 1813. Farragut's fleet, after eight days' fighting, ran past the forts near the mouth of the river in April, 1862, and General Butler took possession of the city a few days later, and New Orleans remained in possession of the Federal army until the close of hostilities. The great riot of September 14, 1874, took place in front of the custom-house, on Canal street, and the Metropolitan police, under General Longstreet, was defeated by the citizens. The population of the city at the last census was 216,000, but it is believed to be upward of 250,000 at present. A large portion of the population are negroes, nearly all of whom speak French. Tens of thousands of whites and blacks speak no other language. Canal street, 140 feet wide, and one of the prettiest boulevards in the country, divides the city into English and French parts. Most of the cemeteries are in the heart of the city, and their dead are buried above ground. The French market is the first place visited by strangers, and occupies several blocks near Jackson square. It was built in 1813, and looks like a rookery. No other such place exists in the world. All nationalities are represented, and all languages may be listened to. Babel was a mere kindergarten compared to this polyglot.

New Orleans is very orderly, and most of the white men and women appear tidy and respectable. It is handsomely lighted all night. The leading newspapers are very newsy and readable. The city takes good care of its indigent and infirm. The fire department is notably efficient. Many of the churches and theaters are very fine. The private residences north of Canal are generally embowered amid orange trees and magnolias, and bespeak comfort and refinement. The people are described as polite and hospitable, and the city a desirable place to visit during the cooler portions of the year.



PRINCIPAL PLACES OF INTEREST IN NEW ORLEANS.

Hon. Wm. A. Wheeler, who was Vice-President of the United States during the Hayes administration, died quietly at his home in Malone, N. Y., on the 4th inst. Mr. Wheeler had been in both branches of the New York Legislature, and served several terms in Congress, before he was chosen to preside over the National Senate in 1877. He was commanding in presence, yet cordial in his manners, and singularly interesting in conversation.

Lassen County Sheep Tax.—The special license tax imposed by Lassen county upon sheep driven into the county for pasturage, has been pronounced unconstitutional by the Supreme Court.

The Fruit Movement Eastward.

Through H. A. Fairbank, secretary of the Fruit Union, who has now his office in Sacramento, we learn that fruit shipping eastward is opening in a promising manner. About a car a day is made up of fruit from Vacaville and Winters, and three cars have gone during the last week with fruit from San Jose, Healdsburg, Napa, Petaluma and San Lorenzo. It is expected that shipments henceforward will multiply fast and that next week two or more cars will be sent each day. Prices so far have been quite satisfactory. The last Pringle apricots did not pay well because others at the same time were sending Royals. A telegram from Chicago dated the 6th inst. reads: "Vacaville cherries, fair, selling at $1.50 to $1.75 and $1.75 to $2 per 10-pound box. Winters Royal apricots selling for $2 per 20-pound box. Seedlings, $1.75 to $2. Weather cooler."

Mr. Blowers' Eastern manager, who is now in New York, writes very encouraging letters. He has made Sgobel & Day agents in that city for the Union. We quote from a recent letter: "I spent some time to-day with Mr. Day inspecting the two auction-houses. If I could be as sanguine as he is about the amount he can sell and the prices the fruit will realize, I should feel that success was ours. The estimate, for instance, which he makes, with the $400 freight rate and 36-hour time from Chicago now obtained to New York, is that he can sell 50 per cent of our total shipments. The *net* prices he named for grapes would be very attractive reading at the end of an account sales, etc. Day considers Baltimore a small market, Philadelphia twice as large, Boston twice as large as both, and New York immense," etc.

With regard to the cherries in New York, Blowers writes: "It seems that although the cherries look well they do not keep, owing to the depth of the basket." This is where they were shipped in crates. The boxes (10 pounds) had carried better.

The general indications favor a considerable help to the fruit-market from Eastern shipments. There does not at present appear any sign of a conflict such as occurred last year, and if this carries through the season, there will be money reaped by the shipment. It is a fortunate thing to have the New York agency in the hands of men who believe something can be done there. It was one of the mysteries of the old regime that it was claimed that New York only wanted a little fruit sifted to them through Chicago, and rather liked paying extortionate prices for it. We shall see what men who believe in great sales can accomplish there.

The State and Mechanics' Fairs.—Efforts are still being made to agree upon dates so that the State and the Mechanics' Institute Fairs shall not coincide. We hope they will succeed in so arranging it.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

The Threlfall Farm, Stanislaus County.

EDITORS PRESS :—In the great central valley of our State, and in the low basins which the rivers choose for their course to the sea, which is almost one vast field of waving, nodding grain, there are many farms that show how surprisingly great are the harvests reaped from these rich wheat centers by the extensive improvements that are being made year by year, and the increased efforts for larger and better crops that reward the labor most gratefully. In the northeast corner of Stanislaus, where the low level of the valley is broken by rolling plains that border the foothills, R. and W. A. Threlfall own one of the largest and most prosperous farms in all that section of the State. It is six miles long by four and a half wide, all inclosed by fence, and is almost entirely cultivated in wheat. The R. Threlfall share contains 15,800 acres, of which 1300 have lately been added, having nine camps; and the W. A. Threlfall share 3000 acres, with three camps, the whole farm having on its southern border six miles of river front on the Stanislaus. Each camp is a general center for the workmen, where blacksmith-shops, sleeping-houses for the men, a few homes for families, huge barns, stacks of straw and all kinds of machinery are grouped together, several of them looking like good-sized villages. Scenes around the different camps are busy and interesting during the harvest season, where are heard the ring of hammers in the shops, the creaking of great derricks, the rumbling of teams and the loud blast of the dinner-horn that calls an army of sunburned harvesters from the thrashers in the hot, glimmering fields.

The different camps on the R. Threlfall place are farmed as follows: At Del Monte and Creek camps, 3000 acres, by R. Threlfall and son; Locust camp, 1500 acres, by John and James Watson; Fagan camp, 1500 acres, Frank Fagan; Sheep camp, 2000 acres, J. and R. Threlfall; Flint camp, 1500 acres, Vernon brothers; River camp, 1000 acres, James McLeod; Carp Lake camp, 800 acres, S. P. Doane; Dudley camp, 1300 acres, Wm. McGinniss. About 60 hands are employed and 240 horses and mules used—all the animals belonging to the renters—which figures are about doubled during the harvest rush. The three camps on the W. A. Threlfall place—Blue Cottage, W. B. Threlfall camp and Middle camp—are farmed by W. A. and W. B. Threlfall, who have about 10 hands employed and 40 horses and mules.

Other Uses of the Land.

A small proportion of the land is used entirely for grazing purposes and for raising hay, and there are also several orchards and gardens which bear well. Mr. R. Threlfall is the owner of over 700 head of cattle, and sheep are kept at the different camps in small bands, for mutton. At nearly all, also, vegetable gardens are planted, and remarkably fine large potatoes are raised for home use.

Although this year there is only a two-thirds crop, owing to the absence of rain, there is a general revival in the way of improvements, 30 miles of cross-fencing having been lately added; and four 18 foot windmills on 50-foot towers have recently arrived from Stockton, to be used at Creek camp for watering stock. At this place a young orchard of several acres adds its bright refreshing green to the golden wheat-grown fields around, and proves that fruit trees will thrive and bear well on this rich-soiled foothill border.

Descriptions of a Few Camps.

The W. A. Threlfall camp is situated on a little flat near the banks of a creek. Back of it are seen the timber-dotted ranges of the foothills in the horizon, and nearer, the fields of standing grain that stretch far out till the falling slopes hide them from view. It is a homelike place, with its neat, comfortable houses, some half covered with fragrant honeysuckles, its barns and large poultry-yard. Mr. W. B. Threlfall has had great success in the poultry business, which he once followed exclusively; but of late years he combines it with farming and finds it even more profitable than before, since the waste wheat left on the fields where the thrashing is done can be used for feed with no expense whatever. The eggs are marketed in Oakdale.

Blue Cottage, belonging to Mr. W. A. Threlfall, is about a mile from the W. B. Threlfall camp, on the public road to Knight's Ferry. Its neat house, windmills and barns are nearly hidden by green fruit trees, and on the northeast stretches the well-known vineyard that produces an abundant crop of many varieties of excellent grapes.

Then there is Creek camp, nearly a mile from Blue Cottage and across the creek, which is the largest of all the camps, and farther on about 2½ miles, Sheep camp is reached, which is also a large place. Mr. James Threlfall and family reside here, and, besides their house, there are sleeping-houses for the men, large barns, shops, etc., and a field inclosed which contains numberless huge stacks of straw that have remained here for years, ready for use when needed. This camp is pleasantly situated, and presents a busy scene at all times of day.

At River camp Mr. James McLeod and family live in a comfortable house on the river-bank. Their location is charming, beneath sheltering oaks and in view of long curves of the brimming river. A magnificent large barn has lately been erected at this camp.

Other camps are large and thriving, showing activity and energy; while the whole farm reminds one of a large and promising colony, planting and building to make the long dry stretches of barren hills bloom like the rose with silvery green seas of bending grain.

Thus the long struggling years that brought lands and implements to the farmers have brought them prosperity as well, with which to build broad and deep the foundations of our vast inland empire of golden wheat.

MAY BLOSSOM DAVIS.

In the Santa Clara Valley of the South.

EDITORS PRESS:—On our way from Bakersfield to Ventura county, over the high Coast Range and down the fast-descending yet long San Francisquito canyon, we enter the Santa Clara valley of the south, near Newhall, Los Angeles county. Santa Clara river rises high up in the mountains, and within a few miles west of Newhall enters Ventura county, extending westwardly until it empties into the ocean, a short distance to the southeast of San Buenaventura.

This valley is justly noted for many valuable and attractive features, such as its fertile soil, its mild climate, its healthfulness, its great variety of products. This portion of the Santa Clara valley affords very many desirable locations for health-seeking families, and the recent building of the coast extension of the S. P. R. R. from Newhall down this valley to San Buenaventura and on toward Santa Barbara has aroused the energies of the people, and marks of industry, thrift and enterprise are seen in every direction.

The valley varies from one to two miles in width till we get as far as Santa Paula; from there on down it widens till it reaches the Saticoy plains, where it spreads out for many miles, embracing the great level country lying between San Buenaventura and Hueneme. In this letter, we will only have reference to that portion which lies above the Sespe river, which is the most considerable tributary of the Santa Clara.

Upon entering the valley opposite Newhall we turn westwardly, passing over miles and miles of most beautiful farming country comprised within the great San Francisco ranch of the Newhall Bros., of S. F., containing in all about 12,000 acres arable land. We stop at the subdivision of 1000 acres now rented by Mr. Robert Dunn, who came from Scotland some 12 months ago. Mr. Dunn last year tried raising potatoes on a small scale. Only one acre planted, from which he raised two crops. The first was planted in April and dug in June. The second in July, and digging finished in the following February. This year 40 acres will be planted to potatoes, 12 of which were put out in March and would be dug some time before the 1st of June. The tubers are large, of excellent quality, and it would appear from the success attending the twice planting of one acre in 1886 that potatoes can here be made a paying crop.

For experiment, Mr. Dunn is this spring planting 20,000 Ramie plants. This will occupy about 10 acres. The Ramie plant is fibrous, and designed for use in the manufacture of fabrics much like silk. This is an interesting and may prove a profitable experiment, and Mr. Dunn promises to report to the RURAL PRESS his success in the undertaking, favorable or otherwise.

At the Camulos Ranch.

Seventeen miles west of Newhall, J. del Valle proprietor, we stop over night and have the satisfaction of looking over the handsomely improved place, with its large, single-storied dwellings, with its spacious porches surrounding three sides of a courtyard, and much in the style of the Mission fathers in use during many generations.

A well-designed flower garden occupies the courtyard. An orange orchard, nearly all composed of seedling trees, of various ages from 7 to 20 years old, still show, among the green boughs, much fruit not yet picked. We notice the very clean appearance of both tree and fruit. There are about 600 trees in bearing, the fruit of good size, sweet and of high flavor. We believe the orange raised here to be as good as the best which we have at any time had the privilege of eating among those native of California.

About 100 lemon trees of the same ages as those of the orange orchard, all seedlings of the Sicily variety, are now in fine bearing, the fruit generally large to very large and reported by Mr. del V. to be of first class. Also about the same number of lime trees, seedlings from what is here called the Mexican lime. Size large, and reported by Mr. del V. to be of high quality, and said to be the largest limes raised in California.

On this ranch are growing about 600 olive trees some 16 or 17 years old and all in fine bearing. A portion of the fruit is picked, and from the balance a very fine oil is extracted. The oil here manufactured is extensively used by the Roman Catholic church, it being first consecrated on Holy Thursday by a bishop, and afterward used by the church in the administration of the sacraments of baptism, confirmation, holy orders and extreme unction. Mr. del V. reports that because of the very fine qualities of the olive oil produced here, he has the furnishing of all the parishes of that church in the United States with olive oil manufactured on the Camulos ranch, and that it is regularly received by their high authorities and distributed to all the parishes according to a system. The olive, from its clean appearance of limb and leaf, its abundant supply of fruit and thrifty growth of wood, seems to be a great success here, and great expectations are entertained for its future in this upper portion of the valley.

About 200 English walnuts, about 20 years old, show a moderate success in the rearing of that fine nut-bearing tree. Further down the valley the walnut proves one of the most remunerative products of the country.

In this valley the almond is said not to be a great success. There are about 400 trees here of both paper and hardshell varieties, but in bearing they are not regular. Mr. del V., however, reports that they are perhaps doing better here than those grown in other parts of the county.

The Home of Ramona.

The Camulos ranch was made famous by Mrs. Helen Jackson (H. H.), who here took many notes for her book *Ramona*. This was the home of Ramona, and Mrs. Jackson's description of it seems wonderfully accurate. A pleasing retirement is afforded by the place, with its seats arranged under ample shades, with its walks ranging between banks of most beautiful flowering shrubs and vines, and handsome orange trees, and further out the graceful olive and stately almond. Still further away to the south, the orchard is terminated as we come to the banks of the Santa Clara, with its willowy fringes, its waters flowing on down their tortuous course, dividing, subdividing, and expanding over its wide beds of shifting sands.

To return to the main building, a few steps to the south, within the precincts of an inclosure composed of post and paling, and under the shades of some of the older trees, stands a small chapel, often in olden times visited by the holy fathers, where the vespers are still duly celebrated by the tolling of a bell and the lighting of the long-established little tapers. At this season of the year we observe the first newly grown, roasting ears of corn, lying on a table not far from the altar, carried there by fair young maidens as an offering of grateful hearts for incoming bountiful harvests so near at hand.

Fruit Ranches.

A few miles further down, near Cienega, on the north side, lives C. H Decker, a thriving farmer, engaged in fruit-raising. His very fine apricot and nectarine trees, richly laden with fruit, betoken the rich gathering in store for him. He has seedling oranges budded on to the Chinese lemon ten years ago, now in good bearing, and promising usefulness. Fruit is of good size and fine flavor. English walnuts, nine years old, are very thrifty, and, without irrigation, have borne two crops. The catkins last year did not set, and so the crop was a failure. The promise is very fine for this season.

While in a country so rich and varied in its products, we note the seemingly curious fact furnished by Mr. Decker that rhubarb cannot here be cultivated successfully.

On the opposite side of the valley and slightly above the last-mentioned place on the slope extending from the banks of the river to the foot of the spurs of the San Fernando range of mountains, we find the residence of Thomas Marple, showing 100 acres valley farming land and 300 in the hills for stock grazing. The soil here, as everywhere in this section of the valley, is sandy, yet very productive. We learn here and at other places inquired of that most fruits succeed excepting the cherry, which we understand to be a failure in most places over this county; the prune, which is here in nearly all places generally a failure, and the almond, which is usually a partial failure; and among the small fruits we may add the gooseberry and currant, which at most places tried do not do well. Mr. del Valle informed us that small fruits have done well at Camulos ranch as far as tried, but no experiments in detail are reported.

Apples, pears, peaches, figs, all flourish and bring handsome returns for industry bestowed. Plums do fairly at most places.

Mr. Marple raises most kinds of fruit. His table and raisin grapes grow luxuriantly and fruit reported most excellent. The vineyard is not a mere matter of experiment in the Santa Clara valley, but an established success. The atmosphere is at the proper season very drying, and raisins are cured to perfection.

At this place we have a beautiful view of the Santa Clara valley from the Camulos ranch, 5 miles above, to Santa Paula, 16 miles below—the range taking in to a considerable extent the railroad traversing the northern side. Within the scope of this view the Santa Clara receives the influx of some important tributaries, including the Piru now above us and the Sespe only a few miles below.

We cannot but reflect what possibilities have been for ages slumbering within the bosom of this valley, and what a brilliant future is just now dawning upon it. We should be glad to know that we might enjoy the privilege of again beholding it, a few years hence, after the changes wrought by the new era, now being ushered in, have transformed our dream of wealth and power into a living reality.

Ventura Co. McD.

THE IRRIGATOR.

A Decision on Ownership of Water.

A decision has just been rendered in the Superior Court of the State of California, in and for the county of Butte, in the case of Irving A. Coonradt vs. George R. Hill, which will be read with interest by irrigators.

This is an action brought by plaintiff, claiming as a riparian proprietor to restrain defendant perpetually from taking a part of the waters of Clear creek, a natural and living stream flowing through the lands of plaintiff, which defendant diverts by means of a certain dam and ditch and carries across plaintiff's land upon his own, for domestic and other useful purposes.

It is unnecessary here to state all the facts as they appear from the evidence, further than such as become pertinent and necessary to point the propositions of law hereinafter discussed, which arise upon them.

The defendant interposed two special defenses, either one of which, if sustained, is determinative of the action: First, an estoppel *in pais*, and second, the Statute of Limitations.

The estoppel is thus plead: "Defendant avers that when he was negotiating for the purchase of his said land, the S. W. ¼ of Sec. 23 aforesaid, and for said ditch appurtenant thereto, and before he had paid the purchase price thereof, knowing and believing that said land was of little value without said ditch and water right, and knowing that said ditch crossed the land of said plaintiff, he went to said plaintiff and asked him if he, the said plaintiff, claimed any interest in said ditch or water right, and stated to him that if he did, he, said defendant, would not purchase said land; that the said plaintiff thereupon replied to and assured this defendant that he did not claim any interest in said ditch or water right; that this defendant had no means of knowing such fact other than asking plaintiff; that he believed what plaintiff said and relied upon it, and on that belief and acting on that assurance, he went on and purchased the said land and ditch and water right, and paid a full and valuable consideration therefor, and that he did so by reason of plaintiff's said disclaimer to him of any interest in or claim to the said ditch and water right; that had it not been for plaintiff's said disclaimer defendant would not have purchased or paid for said property."

These facts so alleged are clearly and satisfactorily sustained by evidence in which there is substantially no conflict, and the only question then is, are they sufficient to constitute an estoppel as against plaintiff in now asserting title or right to said ditch and water right? I certainly think they are. While courts are not ready in sustaining this defense, which closes a man's mouth from asserting title to his property in the enjoyment of another, excepting in a case where the party invoking it brings himself within the strict definition of the rule, the facts here to my mind make this such a case, and call for the application of this equitable doctrine.

The evidence shows that plaintiff, when he made the alleged declarations, was aware of all the facts affecting his rights in the premises, and knew that the defendant was seeking information upon which he intended to rely and act in determining whether to purchase. And he knew that the knowledge sought was peculiarly within his own breast, and that there was no other means by which the defendant could ascertain the fact. And knowing that his statements and declarations would influence the conduct of the defendant in the premises, it is to be presumed that they were made by him with that intention. The defendant having relied upon and acted upon such declarations, and by reason thereof being now in a situation where he will be prejudiced by allowing their truth to be disproved, the plaintiff will not be heard to assert them false to his own advantage. * * * *

It is contended by plaintiff that his declarations cannot operate as an estoppel, because it appears that while he was acquainted with the facts concerning which the declarations were made, he was ignorant of the law applicable to those facts and his legal rights flowing therefrom. But I do not think the contention tenable. A party will not be protected under such circumstances by his ignorance of the law governing his rights. Such knowledge was perfectly accessible to him and it was his duty, at his own peril, to inform himself before inducing others to their injury.

It was further contended by the plaintiff that the defendant is not in a position to assert either of the defenses relied upon by him by reason of the fact that the deed from defendant's grantor, who has established the ditch and water right, did not in terms conclude or purport to convey said ditch and water right, and that consequently the title thereto never passed to defendant thereunder. But the evidence in the case shows beyond controversy, and I must so find, that at the date of the defendant's purchase this ditch and water right was an established and essential incident to the full and beneficial enjoyment of the land, for the purpose for which it was used. Under such circumstances the authorities fully sustain the proposition of defendant that the ditch and water right was an appurtenance and passed as

such with the land—not being reserved. These conclusions are sufficient to dispose of the case, but it may not be improper to add that, in my judgment, the plea of the Statute of Limitations must also prevail in this case.

The evidence shows that defendant's predecessor in interest dug and established this ditch and water right in the year 1875, and thereafter, from that time down to the commencement of this action, said grantor of defendant, and the latter after him, with the knowledge of plaintiff, have continuously and uninterruptedly held possession of, claimed title to and used said ditch and water right, openly, notoriously, adversely and peaceably as against all the world, down to the date of this action, on July 14, 1886.

This is sufficient to invest defendant with title. Where one has "the continued, uninterrupted and adverse enjoyment of the watercourse, or of the same certain portion of it, during the period limited by the Statute of Limitations for entry upon lands, the law will presume a grant of the right so held and enjoyed by him."

I understood plaintiff at the argument to make the point that under Lux vs. Haggin there is no such a thing as the acquisition of a prescriptive right to the adverse use of water as against a riparian proprietor. But that case does not hold any such doctrine. On the contrary, the potency of title by prescription, or adverse user for such a period as prescribed by the Statute of Limitations to bar recovery, is distinctly recognized in the exhaustive opinion of the court on the subject of riparian rights. The plaintiff further objects that the defense of the Statute of Limitations was not made out, because it appears from the evidence that the defendant has never paid taxes on said ditch and water right. Sec. 325 C. C. P. provides "that in no case shall adverse possession be considered established under the provisions of any section or sections of this code," except that it be shown that the party relying upon its provisions has paid all taxes, "*which have been levied and assessed* upon said land," and it will be conceded that this proposition applies to property of the character of that in suit. The evidence shows that this ditch and water right never have been assessed for taxes at all, as such; that the assessor had already assessed the lands of both plaintiff and defendant over which it runs without reference to ditch or water right, by description or otherwise, and each owner has paid the taxes upon his respective holding without regard to the ditch.

It thus appears that no taxes have ever been "levied or assessed" against this property. Under such circumstances was the defendant called upon to pay any in order to perfect his right under the statute? I think not. Plaintiff contended in effect that it was the duty of the defendant to see that the property was assessed and then pay the tax. But it is not the theory of the law, nor is it in accord with our observation of its administration, that the taxpayer hunts up the assessor to insist that he do his duty in that regard. The defendant, I think, could safely rest upon the presumption which the law indulges, that its officers perform those things with which it charges them and waits for the assessor to come around, and the partial failure in this instance of the familiar saying that "there is nothing surer than death and taxes" does not in my judgment defeat this defense. Nor can it make any difference if it be conceded that this ditch is of the character of those included in Sec. 3663 Pol. Code which makes it the duty of the assessor to assess them separately. No tax having been levied or assessed against, the defendant was not called upon to pay any. This conclusion I believe to be in accord with Ross vs. Evans, 65 Cal., 439.

Conclusions of Law.

1. That defendant is the owner of said ditch and water right and that plaintiff has no claim in or to the same.
2. That plaintiff is estopped from claiming said ditch and water right and from bringing this action, and from attempting in any manner to interfere with defendant in the use and enjoyment of said ditch and water right.
3. That plaintiff take nothing by his said action and that his complaint herein shall be dismissed on its merits.
4. That defendant have judgment against plaintiff for costs.

Let judgment be entered accordingly.

W. C. VAN FLEET, Judge.

THE STOCK YARD.

Our Beef Supply.

In last week's RURAL we gave an extract from a letter of G. M. D., of Sacramento, to the *Sagebrush Stockman*, on the beef outlook on this coast. The following are the closing paragraphs of the letter:

It is a well-known fact that our beef is not equal to the Eastern corn-fed product. Our Eastern immigrant wants good beef, with good climate, fruit and wine. There is already a scarcity of good beef at Los Angeles, caused by the increased demand for that article to supply the large influx of Eastern people brought there since the development of the boom. These are questions of considerable importance to the cattle interest on the Pacific slope, and their successful answer means prosperity and vast development for an important and necessary industry.

When the great country between the Sierra range and the Pacific ocean is settled up, as it soon will be, with a population as numerous as in Los Angeles county to-day, and chiefly engaged, as they will be, in fruit-raising, where will they get their supply of beef? The present supply will have to be doubled, at least, and how can it be done? Certainly not by continued overcrowding of the ranges or by raising a class of cattle whose steers must attain three years of age before fit for market.

That there will be a vastly increased demand and better prices is evident. But how can this increased demand best be met by a corresponding increase of product? I answer: Chiefly by pursuing two methods.

First—By increasing the supply of beef-producing food and radically changing the present methods of grazing and feeding.

Second—By rapidly improving the quality of our herds until they are developed to the highest point of rapid growth and early maturity.

If it is true, as stated, that our available ranges are already nearly, if not quite, fully stocked, we cannot expect to increase our annual beef product without providing by some means for an increase of our beef-producing and fattening foods, and that can be done only by raising alfalfa, grain and root crops on our fertile valley lands, upon which water can be got; and our coast has a wide extent of such productive soil, which at present produces but a small percentage of what it is capable of producing.

This method, however, involves a radical change in the methods of stock raising now in vogue here. Our ranges must be devoted exclusively to breeding and raising the young animal, and as soon as such animal has attained a certain available age, he must be placed in feeding-pens, to be matured and fattened into a ripe steer ready for slaughter.

The wise and far-seeing cattleman here to-day is the one who, in addition to his well-stocked range, provides in some one of the fertile, water-blessed valleys a ranch where he can produce sufficient food to mature and fatten his annual product of young steers. Such men will hold in hand both ends and the middle of the string, and can safely count upon a remunerative profit. The rangeman who sticks to present methods exclusively will then, when brought into competition with the progressive feeder and breeder, find his steers selling at a price far below that his neighbor can command.

The rangemen of the Territories east of the Rocky mountains are now rapidly adopting a similar method. They are combining and building vast feeding-pens in the heart of the corn-belt of Nebraska and Kansas, and place each season in these pens their annual product of steers produced on the range, and there feed them hay and corn until ripe for market.

It has been discovered that the average range-fattened steer has a poor show in market beside one of these ripe, well-fed steers.

This method is practicable here, for our alfalfa is fattening, while the Nebraska and Kansas hay is not, and our lands will produce tons to the acre of the various root crops, which nearly equal corn as fat-producing food. But this method cannot be profitably followed if the three-year-old steers at present produced on our ranges are to be placed in the feeding-pens, for the time and food consumed in placing mature steers of this age on the market will cut off all advantages otherwise gained. A better grade of cattle must be produced, which can be made as heavy and fat at two years of age as the present product is at three.

It is a fact susceptible of demonstration that if we can so improve our herds, we can turn off steers at two years of age equal in weight to the present three-year-olds. We have thus increased the annual product of beef just one-third, for the same food that will mature two steers in three years, in one instance, will mature three steers in the other, and the owner has made his capital pay as much in two years as it now pays in three—a double saving, you see. Thus he may be content with even a smaller margin of profit on each individual steer developed and placed on the market.

Let no cattleman think, however, that this is purely a question of feeding, and that he can attain these results by merely pen-feeding his present common stock. To succeed he must have and produce a highbred, rapid-growing, early maturing grade of cattle; and these once secured, the problem then resolves itself down to a mere question of judicious feeding.

A well-known cattle-breeder and feeder in Illinois now turns off all his steers fully matured as beef when from 24 to 30 months old, and they are made to weigh at the Chicago stockyards from 1400 to 1700 pounds a head, and many of them have been sold for export alive to England. His steers are a very high grade of a well-known breed of beef cattle, and to attain the above great weight at such an early age, they are forced by careful feeding from the time they are weaned as calves until matured as above. His beef product brings the highest price in the market, and that he is receiving a remunerative profit is evidenced by the fact that he steadily follows the method. He claims, and science proves it to be true, that an 18-month-old steer placed in the pens will show a greater daily increase in weight on a given quantity of food than with a steer placed in the pens when from 30 to 36 months old, for the younger animal has little waste of tissue, and the preponderance of food-supply goes to growth, and, if in sufficient supply, to fat, also; while in the older animal a certain portion of the food-supply goes to supply the waste of tissue, and is thus lost to the owner and feeder.

The steers above referred to as the result of this method are beauties to look upon, and no such beef has ever been produced on the Pacific Slope; but it can be, and will be produced in the near future, and it will find awaiting it a good demand at good prices.

How our herds can best be bred up to a point which will enable us to produce steers which may be thus early matured is a very important question. There are several plans of action which, if faithfully followed, will give the desired result, and cattle-breeders will probably never fully agree as to the best method; but in my next article I propose to indicate a good way and show what special breed of cattle offer the greatest promise.

I know from personal experience that good breeding pays, for I have for successive years sold to Nebraska feeders two-year-old high-grade steers off the range for as much and more money than my neighbors obtained for their common-bred three and four-year-olds.

THE DAIRY.

A Contra Costa Butter Dairy.

The editor of the Antioch *Ledger* recently visited a dairy ranch in his neighborhood, and as the establishment is operated upon the most approved methods and with the latest improved dairy machinery, we quote a part of the description as follows:

It was the early morning hour while the tide served, and Mr. T. L. Walker was the boatman that rowed us over to Winter's island. We clambered up a rather steep bank and found ourselves almost at the doorstep of the house and Mrs. Walker waiting to receive us. The milking was already well under way and the great 30-gallon can into which the new milk is first strained was rapidly filling. Mr. Walker caught his horse—the only one in the State he claims that can successfully operate a power similar to the one used—blindfolded it, arranged the De Lavel cream separator, and the whirr began that tells of rapidly driven machinery. When the motion had been kept up for some time and had thus without heat attained its maximum velocity, 6500 revolutions per minute, the eight gallon can from which the separator is fed was filled and the work of "raising the cream" begun. Very swiftly around the center of the conical chamber an apparent wall of alabaster was formed, for the rapid movement prevented any portion of the fluid falling to the center, and from the upper tube the yellow cream came forth accompanied by a wind that sprayed and cooled it, while from a lower tube, in another direction, the warm milk passed into a great tank, from which it was taken still warm and fed to the calves.

It was nine o'clock when the milking was done, and half an hour later the cream had all been separated from the milk, and the great can of yellow cream carried away to await its turn at the churn.

On the table in the butter-room a great heap of fragrant, golden butter of yesterday's churning was awaiting the final manipulation and segregation into two-pound rolls. During the time that this work was going forward an immense box hung upon uprights in the milk-room, which Mr. Walker insists upon mis-naming a churn, had received a large quantity of cream, and being tightly closed was connected with the power, and with great thuds began to revolve and continued to revolve for something like 30 minutes, when it was found that its contents was no longer cream, but a mass of golden butter and a small quantity of milk. The milk was drawn off and the butter washed until the water came off perfectly clear. Taken out and weighed—for everything is reduced to an exact science here, and there is no guesswork about anything—and found to be 48 pounds, "Two pounds short," said Mr. Walker, "there should have been 50"—it was carried to the butter-room and salted, the salt also being weighed.

The butter is placed upon an inclined plane and worked with a long corrugated roller, one end of which is fastened to the table and the other handled by the butter-maker. Sometimes the man's entire weight was required to press down the solid mass of butter under the roller. During no part of the process does the hand of the worker come in contact with the cream or butter. All manipulation, where any is necessary, is done by means of ladles of hardwood. The machinery employed is the De Lavel cream separator, an immense box-churn and an ordinary horse-power, with certain belts and wheels by which the desired speed is obtained. The separator is a wonderful exponent of the long years required to crystallize a well-known fact into a simple machine as perfect as nature's own. In one corner of the butter-room we noticed a monumental pile of discarded milk pans, commemorative of the slow and uncertain process of raising cream which Mr. Walker discarded three years ago. He then purchased the separator which he now uses—the first in the State—and which he has used continually since. The work it performs has been perfectly satisfactory and no repairs have been necessary during the entire period, though the speed at which it is driven is almost incomprehensible.

Mr. Walker now has about 90 milch cows at the island ranch. Three men are employed at present, and in a very great measure the success of the dairy depends on their skill and intelligence. They are natives of Switzerland, accustomed from childhood to dairy work. Their patience and deftness in their various departments was pleasant to witness, and could only be the result of long custom.

Mr. Walker's weekly shipment of butter is about 400 pounds, for which he receives the highest market price. During the winter he removes his dairy to his ranch in the hills near Stewartville, where he still has a herd of young cattle and horses.

THE FIELD.

Uses of the Mule.

The editor of the Willamette *Farmer* writes the following practical essay on the mule: A year ago we had horses at work, and by accident and disease buried three good animals, leaving only a young mare and her yearling filly. These were good animals, and by advertising a wish to exchange, we traded off the two for a good pair of mules, in their prime. They were not large, but were low-built and fair size, and could haul a cord of wood or do any ordinary farmwork. It was a good trade for us, as it proved, and an excellent one for the Polk county farmer who wished to quit plowing for wheat and raise stock. He now has three choice animals, all females, and soon his mules will result in a band of good stock, rapidly increasing. Another year there should be two colts, making five head in all, and wheat-growing would not yield him the increase he will have from the mare and filly.

But our point now is as to value of mules as a team for farmwork. In many years we have never had work done as satisfactorily as since these low-built mules have been passing under the limbs of the orchard trees. They work single, as well, and though not near the size of the horses we lost, one of them manages to pull a 14-inch plow, set to go about ten inches, and we plow up to the tree, so that the unplowed strip is only 10 to 12 inches wide. Not only have they proved useful as workers, but they have been economical feeders. It certainly has not cost much, if any, more than one-half to feed these mules than it did to feed the horses we used to have. Another fact is their hardiness and endurance. On much less feed, and few—much less—oats, a mule will outwalk a horse, and he cannot well be overworked, because he won't be. Pull a heavy load on a hill, or a plow in the furrow, and when the mule wants to stop, and knows he ought to rest, he will have his rest whether or no. That is a good quality, for the best horse we had died of overwork, but history does not tell when a mule ever did.

Take the mule, in all shapes and conditions, and he is basely slandered. Our mules never offer to kick and are as gentle as need be. They are tough on the bit and start when they get ready, but when they do start they keep going and are really a fast plowing team. We would not trade these little mules, for orchard work, and ordinary farm work, for the finest team in Oregon. It is true that the mule's ears are sizeable and his idea of vocal effort is apt to be parodied by the small boy, and at times by the humorous bray of older growth. When we occasionally ride Barney through the streets of our capital city, or drive him in the cart on some business trip, our friends and their small boys make fraudulent attempts at riot, flapping their hands above their heads for ears, and are seized with a desire to imitate Barney's guffaw talents. We follow his example and ignore these efforts, for we find the mule usually more dignified than his imitators.

Really and truly, leaving the question of beauty and vocal performance out of the question, we wonder why people don't raise more mules for work teams. They are more long-lived than horses; less subject to disease; cost less to keep and are more tractable and serviceable. We see a few teams of mules, but not one where there should be a hundred. They command a fair price and deserve to be well appreciated, because you can let a reckless hand, who might ruin the temper and habits of a spirited horse, drive your mules in perfect confidence that they will hold their own. There are, truly, many hired men who impose on animals, and it is some comfort to let such have a team that cannot well be imposed on. The mule deserves good treatment, of course, as does every animal that works for man, but the mule can get along with abusive teamsters far more comfortably than can a high-spirited horse that an ill-tempered man would soon goad to frenzy or make sullen and balky. Mules are neglected here in Oregon, and in this whole region, and we commend the fact to attention of breeders as well as to those needing teams, that in all matters of utility and economy, long life and endurance, the mule is the animal for the farmer's or teamster's work, and especially the poor man's friend.

NATURAL LUBRICATING OIL.—A well bored at Herscher, Illinois, to secure water for stock, throws out a barrel of dark-brown oil each day. Experts from Pennsylvania pronounce it fine lubricating oil, worth $9 per barrel, and have leased land to sink several wells.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

On Southern California.

At Temescal Grange last Saturday, much of the evening was spent in listening to an account given by Brother W. B. Ewer, A. M., of his late visit to Southern California. After describing some of the wonderful changes and great progress made in the "march of improvement" in various parts of Southern California, he explained some of the causes of its rapid advancement.

Brother Ewer thinks that the lot selling business has been carried to most ridiculous excess in many places; on the other hand, many parts of the country, which are the very best adapted to orange and lemon culture, he does not believe overrated in value. Perhaps the most interesting part of the exercises consisted in the questions put to and answered by the speaker, giving the whole proceedings a social and homelike aspect.

In reply to a question as to how the people of Southern California stand on the riparian and appropriation question, he stated that they were almost universally in favor of irrigation or appropriation; that the problem was more nearly settled in that section than in many other parts of the State, from the fact that a large proportion of the water was already appropriated, and nearly all that has been appropriated is owned with the land.

Speaking of cold storage for fruit, which has been tested more extensively in Riverside than elsewhere, Brother Ewer was confident that that system alone would add millions of wealth to the land for citrus-fruit growing. So far as tested, it is apparent that citrus fruits will keep better after cold storage, when transported, than fruit which has not gone through the process; that lemons especially are greatly benefited by the treatment.

Brother Ewer does not think that the time has arrived for the making of a new State out of Southern California, nor that many, if any, people desire a new State, except politicians and others who would be willing to sacrifice themselves to holding the extra offices which would result from the division of our present glorious State of California. He believes, however, that the tidal wave of immigration, which has been of so much advantage to Southern California, and has already begun to benefit Central and Northern California, will continue for some time, and result in doubling the population of the State within a few years.

Brother Ewer visited Dr. Ezra S. Carr and Mrs. Carr at their home, "Carmelita," in Pasadena, and reports Dr. Carr far stronger in body and mind than he had seen him for many years. The doctor has lost none of his love for the Grange, its aims and objects for the elevation of our fellow-men and women, and would, no doubt, be glad to see and entertain every brother of the Grange at his very genial and hospitable home.

Sister Jeanne Carr was absent, enjoying a much-needed rest, by way of a leisure journey to other parts of Southern California. Bro. Ewer verifies the report that they had been offered $250,000 for their land, consisting of some 20 acres, a portion of which is almost in the very heart of the town or city (which it is becoming) of Pasadena. He was not slow in advising the Dr. to secure the benefits of such a grand offer. Since that time, it is reported on good authority, Bro. and Sister Carr have been offered $275,000 for their whole property. They are inclined to sell a portion, but have no desire to sell themselves out of the beautiful home which they have so long struggled for, and naturally hope to enjoy throughout the rest of their lives.

Brothers Sewell, Goodenough and others made statements and recited humorous incidents, which helped make the occasion both interesting and lively. Sister Brooks gave an entertaining report of a recent visit to Eden Grange.

On motion of Brother Kelsey, the representatives of Temescal Grange were instructed to vote in favor of increasing the per capita dues to the State Grange from 10 to 20 cents per quarter.

Sister Dewey, W. L, read a humorous article on "Laziness," which was well received.

Sister R. M. Jones, from Chico, on a visit to her father, W. Renwick, was present, and received hearty congratulations upon the appointment of her husband, by President Cleveland, as Postmaster of Chico.

The next meeting of this Grange occurs Saturday, June 18th, at 2 P. M., to which all sojourning Patrons are invited.

Danville Thanks the Orator.

EDITORS PRESS:—The following was unanimously passed by Danville Grange:

Resolved, That the thanks of the Grange are hereby tendered to Dr. McKaig, for his able and pertinent address, delivered at the Danville picnic May 7th. C. R. GLASS, Sec'y pro tem.

San Ramon, June 5, 1887.

BRO. J. C. MARSH, of Placerville, has been appointed by W. M., Johnston, District Lecturer for El Dorado county.

Oregon State Grange.

At the late session of the State Grange of Oregon, the following preamble and resolution was adopted:

WHEREAS, It is reported in the public prints that the railroads of this State are violating the statute of this State known as the Hoult law, by charging more for a shorter than a longer haul, therefore be it

Resolved, That it is the duty of the Railroad Commission established by this State to inquire into this violation of the law and endeavor to have the law obeyed; also that it is the duty of said commission to generally inquire into the general management of the railroads of this State, and that said commission should do so of its own motion, without waiting for complaints from citizens who may be aggrieved.

The Committee on Agricultural College reported, regretting that the present agricultural college was so only in name, and recommending that the matter be carefully worked for until it was in correct shape.

The Committee on Good of the Order commended the principles enunciated in the Cincinnati labor platform, and pledged the cooperation of the Grange in advancing the cause of the laboring classes.

On a resolution as to aliens procuring land in this country, it was recommended that laws be passed forbidding the acquiring of titles by aliens.

On a resolution from J. D. Chitwood, advocating the postal banking system, it was advised that the matter be referred to the subordinate Granges and discussed, all of which was adopted by the Grange.

The report of the Committee on Education embraced the levying and distributing of a sufficient tax to give a free school to all children, the teaching of the effects of alcohol on the human system in the public schools, and the forbidding of the use of tobacco on schoolgrounds. The Grange adopted the report.

The closing session was devoted to conferring the Pomona degree upon a class of 37, and discussing a sumptuous Harvest Feast.

Wheatland's Festival.

The strawberry and ice-cream festival given by Wheatland Grange Saturday, May 28 h, was attended by goodly delegations from Lincoln and Yuba City Granges, as well as a number of visitors from Marysville, and according to all accounts proved a decided success. The *Sutter Farmer* speaks particularly of the decorations of the hall, which consisted of the products of the farm, orchard and garden—splendid specimens of their kind. There was wheat, by several parties, showing as fine, large heads and filling as ever was seen; barley and oats ditto, and the floral exhibit was magnificent; but the object of most attraction and admiration stood in the center of the hall and was composed of a little of everything in the vegetable kingdom—from onions to roses, and potatoes to cherries—all stuck together like the showman's "happy family," the whole bunch (or bouquet) measuring about 30 inches in diameter.

When he came to the work of the good sisters in the culinary department, Bro. Ohleyer waxed enthusiastic—thus: "The invitation mentioned only the 'Annual ice-cream festival,' but that was the least part of the menu. There was roast and fried chicken and chicken-pie, cold ham and a salad we never saw equaled, pies and cake in endless variety, together with strawberry shortcake, and O, what angel food! All this and more, shored up with tea and coffee, the whole making one of the grandest feasts ever set before a sharp and healthy appetite. After the repast, an attempt at oratory was made by D. A. Ostrom, C. P. Berry, Hugh Morrison, B. F. Frisbie, F. R. Lofton and others, and these were interspersed with vocal and instrumental music and choice declamations by the younger members of the Grange, showing talent and application rarely met with in impromptu gatherings."

Santa Rosa's Anniversary.

Brother Flint, W. L. S. G., attended the annual celebration of Santa Rosa Grange, May 28th, and has given a roseate report thereof in the *Patron*. The address of welcome, by Bro. Coulter, was felicitously given, and beside the literary program published in advance, W. M., Davis, having "corraled" some ten Masters and Past Masters in the rear of his desk, where they could not slip away, called upon them one after another, and got capital responses.

Bro. Flint commends especially two things about this Grange—that they have a lady Overseer, and that they open and close the Grange without depending on their books. He speaks in warm terms of the hospitalities extended him by the sisters in general, and Bro. E. W. Davis and wife in particular, and predicts a season of great enjoyment to those who attend the next State Grange.

BENEFIT TO EDEN GRANGE.—Miss Roxy Dennis, of Mt. Eden, assisted by Miss Ellen Coursen and other San Francisco talent, will give a grand benefit concert to Eden Grange at Oakes' hall, Haywards, on Saturday evening, June 25th. After the music there is to be dancing till midnight. Tickets (only 50 cents) can be had of Miss Dennis or members of Eden Grange, or at the door. We hope there will be a large turn-out on this pleasant occasion.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Farmers in the past have given by far the greater proportion of their thought and time to the growing of crops, leaving the matter of sale and distribution almost entirely in the hands of others. But since the advent of the Grange, farmers are coming to learn that it is just as much a part of their business to sell a crop as it is to raise it. "To calculate intelligently upon probabilities" and "To open out the channels in nature's great arteries that the life-blood of commerce may flow freely," are a part of the Grange "Declaration of Purposes." Much has been done by local and State Granges in the matter of local markets and business at great commercial centers, and the National Grange, representing as it does the farmers of the whole country, has for several years carefully discussed the reports of its Committee upon Transportation and Commercial Relations.

At the last session of the National Grange, at Philadelphia, November, 1886, the Committee on Transportation and Commercial Relations, through its chairman, Leonard Rhone, of Pennsylvania, offered as a part of their report, which was adopted, the following:

"The importance of our commercial relations cannot be overestimated, nor can the duty of Congressional supervision over the commercial interests of the United States be questioned.

"With our vast area of cultivated and uncultivated lands and improved machinery, our possibilities of production are practically unlimited. It has been proven, however, that unlimited production is not, necessarily, prosperity. Hence it is of equal importance that the same care should be exercised in securing the profitable distribution of products as obtains in their production.

"Our country with her production of 450,000,000 bushels of wheat, without a market, is not so prosperous as she has been with a crop of 350,000,000 with a market. The question arises: What are our farmers to do with their surplus of 100,000,000 bushels, and indeed, with the many other products of which we have a surplus, and for which we have no market at home? Are we to go on blindly, in unlimited production, without reward, or can we, by intelligent and unbiased investigation, discover and establish a policy sufficiently liberal to enable the American farmer to dispose of his surplus products, for which there is a demand abroad and none at home? That the present policy of the United States Government is hostile to American agriculture is fully evidenced by the unfriendly attitude of the great nations of the world in their commercial intercourse with us. We see remote parts of the world, although only experimenting, as it were, in certain lines of agriculture, slowly but surely driving us from our long-established markets, while other States have closed their ports against some of our most valuable products. * * *

"May we not, however, appeal to every member of our Order to cast aside every prejudice, and examine the question from a purely agricultural standpoint? Although class in its character, it is yet in harmony in its results with the fundamental doctrines of the Grange—'The greatest good to the greatest number,' and consequently to the majority of the people of our country. The National Government has done comparatively nothing for our great industry in production, and less, if possible, in distribution. * * *

"Therefore, be it

"*Resolved*, That the National Grange, through its legislative committee, appear before Congress and urge an intelligent revision of all laws touching our commercial relations, and thus secure to the American farmer an outlet for his surplus products."

The farmer is the only conservative in any community. His interests are indissolubly connected with the soil which he tills. Through all changes of Government his lands remain. The capitalist, with his stocks and his bonds, has no such interest in the perpetuity and integrity of good government as have the agriculturists. He can transfer the contents of his vaults and money-chests from continent to continent in ten days' notice. If revolution and anarchy impend, he discerns the coming storm and transports his movables to happier shores. But the barns and granaries, the flocks and herds and lands of the husbandman, cannot be so converted and transferred. These remain to be burned and plundered and despoiled. Hence the farmer has a stake in the existence of civil government which the mere capitalist and broker has not. And if there be one debt, one obligation, which you owe greater than all others, paramount to all others, it is that you educate your sons to maintain and conserve and transmit the institutions which you have inherited, the wealth which you have created, the heritage of freedom which you have defended. —*President Patterson, of the Kentucky Agricultural College, at the Kentucky State Grange.*

It is quite reasonable to suppose that every farmer desires to better his condition, relieve himself of burdens that are unjustly saddled upon him, and realize something from labor. * * What is needed is a thorough organization and intelligent direction. How is it to be had? The farmer's club, though very good in itself, is far from meeting the requirements of the hour. The discussion of the succession of crops, the raising of stock and the application of fertilizers, all important topics, we concede, but not the real subject at issue, consume the time of the club. The farmers' institute, one of the best places in the world for airing pet theories and riding darling hobbies, also leaves the vital question unsolved. We must look somewhere else for relief, and there is only one source of help left. The Grange fills the bill, if that form of expression is admissible, and to its standard let the farmers gather from every nook and corner of our broad land. Bury all partisan differences, turn your back upon party leaders, think, act and vote for your own interests, and you can secure all you desire. Dissensions among farmers themselves render spoliation possible and profitable.—*Virginia Granger, Portsmouth, Va.*

In many Granges it has grown to be a regular annual custom to have in June, "pleasantest month of all the year," a floral meeting. Flora being the presiding officer, an exhibition of flowers held, hall, grounds and tables decorated with floral displays. The discussions consisting of flowers and home adornment, readings, essays, etc., on the same subject. The children of the Grange families and others in the neighborhood often take part, and all enjoy a respite from the busy "planting" season, and take up their summer's work with minds and bodies rested and better because of the meeting.

PROGRESS.—New Granges in Maine, New Hampshire, Pennsylvania and Texas.

One of the Subordinate Granges in Maine has a lady for Master, with an excellent record for the past year. The membership has been increased to over 200, embracing the best citizens of the place and its vicinity. Their store, with a trade of upward of $1000 a month, has done a profitable business. They have also erected a large building to be used for store and hall, which is nearly completed, and will be ready for occupancy in the early spring.

Church Hill Grange, Kentucky, held its eighth annual stock sale on Friday, May 27, 1887. About 200 head of cattle were on sale, mostly registered Shorthorn and grazing stock. Hon. J. H. Brigham, Master of the Ohio State Grange, delivered a public address to the large gathering of farmers who were present.

By a vote of the Legislature, the Master of the North Carolina State Grange has been again elected a member of the State Board of Agriculture.

"The Courage of His Convictions."

EDITORS PRESS:—With your permission I would say to your readers that I think one great obstruction of temperance work is an underestimate of general temperance sentiment. I seldom hear people say that, personally, *they* are not ready for prohibition; but many say "the people" are not ready for it yet. So they are waiting for the people to be "educated up" to where they stand; whereas the very people they wait for are also waiting for them. The waiting is reciprocal, but not at all promotive of progress.

Those who have changed their views or positions on temperance questions are, of course, the first to know of that change, and are sometimes quite slow to report it—and also slow to learn that others have changed as much as themselves. I have seen tests taken, with a view of ascertaining the general temperance sentiment of certain localities, that were a perfect surprise in results, showing that a community may be ready for an advance step before they know it.

I would here suggest to temperance workers that when they hear men say, "The people are not ready for prohibition," they carefully inquire of such whether they themselves are ready. I will venture the opinion that in nine cases out of ten they will report themselves ready, but waiting for the people to become ready.

Many temperance people have great fear of the results of an unsuccessful reformatory effort—they are overstocked with prudence, like the careful mother who would not have her boy go into the water till he had learned to swim. If all this class of prudent temperance people had for the last 50 years worked and voted for what they thought right, instead of what they thought the people were ready for, every licensed grogshop in the land would have been closed ere this. Let every one do *his* part, without waiting for others, and the work will soon be done. OLD WORKER.

Lodi Grange on Suffrage.

After having the Woman Suffrage question under consideration two months, Lodi Grange adopted the following, May 18th:

Resolved, That we favor extending the rights of suffrage to all persons of sound mind in the United States, without regard to sex (Chinese excepted), with the following restrictions, viz.: That all voters should be of the age of 21 years, and shall have resided in the United States five years, and become naturalized citizens, and shall understand the principles of a republican form of government; also be able to read and write; and

Resolved, Further, that all persons, to be entitled to vote, shall have a property qualification of not less than $200, or can show a receipt as having paid a poll-tax in the last year.

ZEITSKA INSTITUTE.—A large and fashionable audience greeted the pupils of Zeitska Institute at Metropolitan hall last Saturday evening, on the occasion of the graduating exercises. The participants in the exercises were the recipients of many beautiful floral tributes. At the close of a well-rendered literary program, Gen. O. O. Howard presented diplomas to the graduates. The graduates were: Miss Emma Kohn, Miss Lorene Ackerman, Miss Adele Dannenbaum, Miss Lily Behrendt, Miss Estelle Hellman, Miss Hilda Berwin and Miss Russelle Ward. Extra prizes were awarded to successful pupils as follows: Senior gold medal, Miss Emma Kohn. For the past two years this young lady has won the above medal. Junior class gold medal, Miss Rosa Steinhart; intermediate silver medal, Miss Hilda Steinhart; elementary silver medal, Miss Aimee Steinhart. An especial gold medal, given by Prof. Carl Eisenshimel, for drawing, Miss Emma Kohn.

THE OAKS.—Miss Tracy's school in Oakland, "The Oaks," closed last week with an evening "At Home." The year 1887–88 will begin on the last Wednesday in July. The school is located in one of the most picturesque spots in the "City of Oaks," being at the same time in a very central location. Ample, well-shaded grounds surround the commodious buildings. Miss Tracy is widely and favorably known among the educators of this State. A notice of the school appears on the educational page.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

VARIOUS CROPS.—Livermore *Herald*, June 2: Livermore is supposed to be a little dryer than the rest of the country, but there are more good-looking pieces of grain in this valley than in any other parts of the county.....Recent estimates place the hay crop of this section considerably higher than those of the early part of last month. The cool weather brought out the volunteer, while much grain has proved so foul with wild oats as to be more valuable for hay. Consequently, though our volunteer crop is nowhere near that of last season, our total yield of hay will be by no means inconsiderable. ....The barley on the "bolsa" lands, near Pleasanton, is simply immense, present estimates being from 30 to 50 centals per acre. The statements hitherto published, of the loss of the potato crop by frost, were without foundation—it never looked better at this time of year.....The biggest fruit-crop in this county will be apricots. The trees everywhere are loaded down. The cherries are comparatively light, and were in some places cooked by the late hot spell—for instance at Haywards, San Lorenzo and Pleasanton. The currants, also, in many cases have been cooked; perhaps one-fourth of the crop has been lost in this way.

Butte.

GRAIN OUTLOOK.—Cor. *Record Union*, June 1: Crop prospects about Gridley are promising, and fully one-third more than last year will be harvested of wheat and barley. The north wind of May 27th and 28th did not injure the outlook. Haying has commenced, and barley harvesting will begin on Monday next, and heading and thrashing wheat will be entered upon by June 15th.

SULTANAS AND FROSTS.—Biggs *Argus:* We are informed by a reliable vineyardist, residing a few miles from town, that the late frosts, while slightly nipping his Mission vines, did not touch his Sultanas in the same vineyard. This is strong proof that the Sultana possesses superior frost-resisting qualities, and seems to us to be a fact worth remembering by persons growing grapes in those counties occasionally subjected to spring frosts.

RAISING TEA.—Chico *Chronicle:* A. L. Harris, who lives 16 miles from Chico, at an elevation of 1400 feet, has a number of tea-plants growing on his ranch, and they seem to do as well as if in their native land. Mr. Harris raises and cures all the tea his family uses.

El Dorado.

CARSON CREEK ITEMS.—Cor. *Republican*, May 26: The farmers are all busy harvesting their hay and grain. Crops are not so good as last season, but are much better than we expected. The dairymen are all leaving for mountain homes with their stock. Our neighborhood will soon be very quiet for a few months, owing to the absence of so many people. The late frosts did considerable damage to the grapes and fruit. Mette's vineyard, at Mormon island, was damaged several thousand dollars.

Inyo.

HE THOUGHT OF THE OTHERS.—A number of horses are kept together at Independence; a few days ago a load of alfalfa hay was brought and put in a yard near the stable; one horse was loose in the yard, the other two being tied up in the stable, the door being left open. After eating a few bites of the alfalfa, of which he is very fond, the loose horse appeared to remember that his companions were debarred from the feast; he took large mouthfuls of the alfalfa, carried it into the stable and placed it before the other horses. If reason had any part in the action of the good Samaritan, who shall say that it had no part in the action of this horse?

Los Angeles.

WESTMINSTER JOTTINGS.—Cor. *Times*, June 1: Apple, apricot and peach trees are loaded with fruit, and there will be a large surplus. The new railroad will give us easy access to Riverside for winter apples. The hay crop will be large and of good quality. Milch cows are abundant and cheap. Good horses scarce and dear. This is our most profitable industry, but the outside demand prevents any accumulation. Pasturage is still abundant and cheap. Many farms are now profitably used as pastures that would maintain fine orchards and bear close cultivation.

Mendocino.

POINT ARENA MATTERS.—Cor. Petaluma *Courier:* About the usual acreage of grain and potatoes have been planted. The farmers and dairymen have planted large quantities of beet and carrot seed, finding by past experience that roots make profitable feed. The cows are milking well and the late showers give assurance of a long season. This, together with the recent advance in butter, makes the dairymen good-natured.

Sacramento.

A NEW APRICOT.—*Record-Union*, June 3: O. O. Goodrich, of Sutterville, has propagated a new variety of apricot, which promises to be of great value. It is now ripe, or so nearly so as to be in good shipping condition, and is fully twice the size of any other variety at present in the market. It was grown from the pit of a peach apricot, and has something the appearance of this variety. Another very desirable feature is that it ripens on all sides simultaneously, and is not one side ripe while the other is green. The tree is standing in a nursery row and is only three years old. Thus far the variety has not been named.

GRAIN AND FRUIT CROPS.—The hot weather of last Saturday and the high wind prevailing at times since then does not appear to have done any injury to either grain or fruit in Sacramento or Yolo counties. In Sacramento the yield of grain will be larger than the average, while in Yolo it will fall a little short of the ordinary crop. In the latter county it will be very much better, however, than was expected two or three weeks ago. The wind was rather beneficial than otherwise to the fruit interests, relieving the trees of some of the surplus fruit, which otherwise would have to be pulled off. The season is a little later than usual for grain. Last year Capt. Foster had wheat from his West Side ranch in the Stockton market June 1st. Word comes from upper Sacramento that some growers have commenced cutting barley, but the harvesting of that grain is not general.

San Bernardino.

PLENTY OF FRUIT.—Colton *Semi-Tropic*, June 3: Oranges are setting very thickly, and the promise for next season's crop is excellent. A great many new orchards will come into bearing. The crop of early and small fruits is fast ripening. The blackberries are nearly ready for market in many places. In about ten days there will be sufficient early fruit to start the canneries. Prices for fruit will be good, but perhaps not so high as some years, on account of the heavy production.

San Diego.

FRUIT PROMISING.—National City *Record*, June 2: The fruit prospect throughout this part of California is very good. There will be plenty of peaches, apricots, grapes and other fruits.

San Luis Obispo.

OSO FLACO AND BLACK LAKE JOTTINGS.—Santa Maria *Times*, June 4: On the Oso Flaco and Nipomo flat, grain, potatoes and beans are looking well. The barley is well filled out, and promising a handsome yield. A sprinkle of American farmers and dairymen have mingled with our Swiss and Portuguese, and a rivalry has begun to be felt. As to economy in farming, the latter are hard to compete with; as to the former, they have no equal in the dairy business. Black Lake, or sandhills, as it is generally called, has the best prospects for a good harvest. The grain is well filled out and of average size.

Santa Barbara.

A NOVEL FRUIT.—The Ventura *Free Press*, referring to the exhibit from Goleta, made by Joseph Sexton, at the recent flower festival, observes: The custard apples (cherimoyer) are the first seen by our people. It is common in Brazil and Peru, but we have never before heard of its being grown in California. It is pear-shaped, of grayish color, and grew from the size of an orange to more than a dozen pounds in weight. It is pronounced the finest-flavored fruit in the world. When a tree is in full bloom its fragrance is overpowering.

BEES ON MUSTARD.—Lompoc *Record*, June 4: The bees are working finely on English mustard. The air is so filled with their busy hum that one mistakes it often for swarming. The honey season may prove better than has been estimated. At all events, take prime care of your colonies, as next year promises to find the market entirely depleted, and prices will be high.

Tulare.

BARLEY ROWEN.—Visalia *Times*, June 2: Farmers east of this city state that after cutting a crop of barley for hay on their ranches, a second growth begins, attains a hight of from 10 to 12 inches, and heads out. The kernels do not fill, but it makes excellent food for fattening cattle and hogs, and is often more valuable than the first crop.

THE WATERMELON CROP will be almost a total failure in the section of country usually relied on to supply the market of this city. The heavy hailstorm early in the season destroyed the first crop, and later plantings die down shortly after getting out of the ground without apparent cause. The crops of Joseph and Horace Thomas are a failure, and Uncle Joe says that melons which were formerly sold at 25 cents will bring 50 cents each this year. One person who has an acre of growing vines has been offered $150 for his crop—which he refused.

Yolo.

MILES OF WHEAT.—Woodland *Democrat:* Having heard much of C. F. Reed's 10,000-acre field of wheat, which lies along the levee for miles up and down the river, and in sight of the landing, we took the road which led through the center of the waving grain. While the field is of immense size, the quality of grain corresponds; it is as thick as it can stand on the ground, and as tall as the back of a horse, with long, well-filled heads. The prospective average yield per acre is estimated by good judges as high as 40 bushels, making the total amount of the field 400,000 bushels, or 12,000 tons, which, allowing 2000 tons for a shipload, would fill six large-sized vessels.

Yuba.

ORCHARDING AT SMARTSVILLE.—Nevada City *Transcript:* Mr. Brand says that he has regularly for a number of years visited some of the largest orange orchards in the southern part of the State, but never saw the trees hanging as full as do the orange trees in the orchard of Mr. O'Brien, and that the lemon, apricot, peach, plum, almond, fig, apple and other choice fruit trees are bearing as prolifically. The three-year-old trees, selected, planted and cared for by James O'Brien, Jr., are wonderful in growth and in the quantity of fruit the tender branches are bringing rapidly to perfection. James O'Brien is having many miles of ditches constructed over his vast tracts of fine land, and intends to bring the same rapidly forward to a fine state of cultivation.

OREGON.

LANE COUNTY ITEMS.—Cor. Willamette *Farmer*, May 30: Fruit in Lane county will not be a full crop by any means. Baldwin, Spitzenberg, Newtown Pippin and some other kinds of apple are bearing well, but the earlier-blooming trees are generally light. The same is true with regard to plums, while the German and Italian prunes will bear a fair crop. The peach plum seems to set fuller and succumb quicker to cold weather than most other kinds. Cherries will only yield a partial crop, while pears seem to hold their own. Peaches all killed; also blackberries. Grain and grass look well and promise a good yield.

WASHINGTON.

HUGE HOP FARM.—Willamette *Farmer:* The famous Snoqualmie hop-growers' ranch, at Squak, in King county, is supposed to be the largest in the world. They have 20 span of horses and mules, a sawmill which is soon to be run night and day, a logging camp, 100 acres in oats and wheat, and 40 acres of potatoes, etc. They have their own carpenter and blacksmith shops, and they keep a hotel and large store beside, and by next fall will have 800 men in their employ.

From Vacaville.

EDITORS PRESS:—The weather is cool now—the mercury stood at 55° this morning—but it was hot enough Saturday and Sunday a week ago. The mercury went up to 111°, and along with the heat there was a heavy north wind, which did some damage to garden-stuff on Putah creek, but no great injury to fruit.

Messrs. Brink and Thissell have finished shipping their crop of seedling apricots, most of which went East. Mr. Thissell had over 5000 boxes, and is now shipping Royal apricots and Alexander peaches.

There is a great deal of dissatisfaction among the fruit-raisers here with the so called Union. They claim that there is no Union, but that Mr. Porter took advantage of his position last year to freeze out other buyers, at the expense of the dear people, and is now buying for himself. At any rate, but few around here, except large producers, are shipping East. This partly accounts for the low price ($1.60 per hundred) at which a few crops of apricots were sold here a short time since. People generally calculate to ship to San Francisco while it pays, and when the price of fruit gets low they will dry.

Help has been pretty scarce. There is a rumor that Chinese will strike for $2 per day as soon as the crop of 'cots comes in. If they should, it would be the best thing that ever happened for Vacaville, for, while it would be almost if not quite impossible to get help to save the canning crop, it would result in the discarding of Chinese labor. While there are some here that prefer a Chinaman to a white man, there are many that will not hire a Chinaman unless obliged to. Several who have large crops to dry have made engagements with women, girls and boys—the help to board themselves, and the rancher to haul them to the ranch in the morning and back to town at night. One great point in favor of John is that he is no bother about the house. He can be put into a henhouse, or any kind of a hut, and generally will stay with a man as long as he can get a dollar; while much of the white help (not all) will only stay until they get money enough to get drunk on.

"Truth-seeker" of Los Angeles wishes to know about gooseberries. As to there being so few in the market, I think if the price paid was high enough there would be plenty, as they are certainly low in San Francisco. As to raising them here, I do not think many have made a success of it. The small kind seems to do pretty well, but the English gooseberry bush soon dies out—I think on account of the heat. They will mildew, and can be sulphured the same as grapevines. G.

Vacaville, June 5th.

Saloonists Defiant.

The Santa Rosa Prohibitionists have called a mass meeting for Friday of this week; and it is given out that they mean to form a thorough organization for political purposes. Officers in that city continue to arrest saloon-keepers for non-payment of licenses. Several of the alleged offenders have pooled their issues to resist prosecution, employed counsel, and had a day set for trial.

In Oakland, also, the liquor interest has conspired to evade the payment of high license and thwart the legally expressed will of the people. As we note the lawless and arrogant demeanor of the tipple-venders at large, we cannot but recall the ancient adage: "Whom the gods would destroy, they first make mad."

Barley Review.

[Written for the RURAL PRESS by J. R. F.]

The Call Board season closed on June 1st, although new barley did not put in an appearance till June 4th. The regular crop season will hardly commence before July 1st, when the stock of old barley in the State on that date will be made public. Throughout the season drawing to a close low prices ruled, which unduly stimulated consumption and exporting, and, notwithstanding the crop was the largest in the State's history, still the carry-over into the incoming season will not be more than a general average. For the sake of comparison the following tables of crops and also of carry-overs are given. The crops were as follows:

Years.	Centals.	Years.	Centals.
1869	6,147,000	1878	7,475,000
1870	3,699,000	1879	8,250,000
1871	3,643,000	1880	7,360,000
1872	3,679,000	1881	5,070,000
1873	5,107,000	1882	4,500,000
1874	5,500,000	1883	5,060,000
1875	4,525,000	1884	8,100,000
1876	5,900,000	1885	5,900,000
1877	3,900,000	1886	10,060,000

The stocks in the State on the 1st day of July for several years past were as follows:

Years.	Centals.	Years.	Centals.
1886	114,850	1881	595,000
1885	608,150	1880	908,000
1884	640,000	1879	806,500
1883	820,000	1878	147,598
1882	162,000		

This important fact must not be lost sight of that the stocks do not include the invisible supply—that held on the farm. Probably last year came the nearest to it, owing to the very heavy deliveries by farmers before the close of the season of 1885–86. This year the invisible supply promises to be very small, owing to the drain by short sellers on Call to meet their contracts. A crop of 503,000 short tons last year, and a carry-over of 5700 tons—total, 508,700 short tons—were enough to stagger the most confirmed bull, particularly so as the average consumption in this State for three seasons past, ending with the season of 1885–86, did not average more than 300,000 short tons. For the season drawing to a close the consumption was very large, placed at fully 400,000 tons. Accepting this as correct and it leaves of the crop and carry-over 108,000 tons. Of this there has been exported by sail and also overland, fully 50,000 tons, leaving 58,000 tons, which will probably be reduced by July 1st, next, to 50,000 tons, which will be carried into the season of 1887–88. Latest crop returns do not warrant estimating the outturns this year at over 325,000 tons, which, if correct, will give us with the carry-over fully 375,000 tons, a shortage compared with last year of 133,000 tons. This, too, in the face of a large increased consumption, owing to more railroad building, more teaming, and more general outdoor work. For the sake of comparison, and also general reference, the following table of arrivals of new barley in this city, and also the price at which sold, is given:

1870	June 19	$1 20	1879	June 30	75
1871	" 12	1 57½	1880	" 24	68¾
1872	" 6	1 40	1881	" 21	90
1873	" 5	1 10	1882	" 12	1 65
1874	" 9	1 45	1883	" 25	94
1875	" 20	1 35	1884	" 9	90
1876	May 30	90	1885	" 16	1 25
1877	June 30	1 55	1886	May 27	1 10
1878	" 11	80	1887	June 4	1 15

Stockton Notes.

[Written for the RURAL PRESS by MRS. W. D. A.]

The sudden flaming heat of May 28th, which hurt the whole crop greatly and advanced wheat to $1.80, has been succeeded by cool weather, which helps the crop to fill better, though it is ripening fast, and some will begin cutting next week, and another week will see the great harvesters busy.

The hot wind, that blew day and night, seemed to have passed in currents, blasting some fields, missing others, scorching berries and tender things. With it returned the beetles, taking garden-stuff, except cabbage. Turkeys pick them off, but pick onions and cabbages, too. Lime dust and plenty of water and continually annoying with ashes save a part of the garden—better than none! Fruit looks well, except that the leaves are eaten from pear trees somewhat.

A moderate crop of hay of the best quality is now about finished. It has sold in the fields for $10, but most of it has gone into barns or stacks for winter sale or home use.

Three smart shocks of earthquake shook up our ideas after having haying without any rain last night.

The Gridley monument did not arrive, but Decoration Day was very satisfactory with marching, an eloquent oration by Judge Swinnerton, singing by 50 young ladies and Miss Short's elocutionary entertainment Monday evening, to raise the lacking funds. It was held Tuesday evening, too, to the great credit of the participants.

The accidental drowning of two promising youths, Frank Reed, son of Wells, Fargo & Co.'s express agent, and a son of Dr. Giesea, in the San Joaquin, just below Rough and Ready, from rowing too close to a steamboat, has saddened all and brought lasting grief to their happy homes.

Stockton, June 4, 1887.



Where We Wandered.

[Written for the RURAL PRESS by MALLIE STAFFORD.]

Deep, into the old oak forest,
Where the drooping branches twine,
And the dying rays of sunset
Only on the treetops shine—
Where the cool shades lie forever
And the little lakes enshrined,
There we wandered, young and happy,
In the hope of young life's time.

Yes, we wandered where the red man
Erst had skimmed the lakelet blue,
And upon its limpid waters
Launched his little birch canoe;
But long ere then his savage warwhoop
Ceased to echo in the glen,
Where you and I with childish voices
Mocked the robin and the wren.

But the years that circled o'er us
Since we trod those banks and braes,
Like the foliage of the forest,
Dim the light of other days.
In the golden land I'm writing,
Where the wild pines sadly sigh,
And that childhood's sun is lighting
The winding aisles of memory.

I often ask myself, old playmate,
Will we ever roam together?
Hear the robin and the wren
Where the lakelet laves the heather,
Breathe the hopes we cherished then?
Something speaks, I fear tis' reason,
These and youth have had their season.

Arcadian Hights, Napa Co.

Springtime Amid the Rockies.

[Written for the RURAL PRESS by FANNIE ISABEL SHERRICK.]

No matter how late spring may be in coming, she is always charming, and never more so than in this mountain town. April was a stormy, wintry month, with scarcely a hint as to the crowning loveliness of May; and even this beautiful month was ushered in with one of the biggest snowstorms of the season. Nearly a foot of snow fell on Mayday, and the mountain gleamed above the valley as white and cold as if it were midwinter.

But underneath the snow the buds were growing, and, strange as it may seem, the flowers peeped above it, sweet messengers of spring. Along the snowbanks the crocus-buds lifted up their purplish heads with a shy wonder at the cold world about them, and as the snow melted it showed the emerald carpet of the grass beneath. This union of winter and spring was not only wonderful but most beautiful to see. Even now the traces of the frost-king's icy fingers still linger on the edges of the mountain-slopes, but these are fast disappearing under the gentle smiles of May.

It seemed like a long and dreary winter, but the splendor of the budding world about amply repays one for the months of silent, desolate grandeur. The aspens are of the most tender, delicate green, fairly illuminating the mountain-sides, and every slope and mesa is starred with daisies and buttercups. The flora of Colorado is brilliant and varied and all its mountain types are represented in this blooming valley.

Most of the ordinary garden flowers are raised here without difficulty, and people are beginning to take especial interest in the cultivation and care of gardens. For a new mining camp the improvements in this direction are rather remarkable. The smooth lawns and beautiful flower-plots in some parts of the town are very attractive, and even the poorest dwellings have some efforts in this line.

The tin can is the typical flower-pot here, the earthen ones being rather expensive and difficult to obtain. The amount of canned goods used by this community is almost impossible to realize, and many are the uses of the discarded can, but none more useful, economical or ornamental than that of flower-growing. It speaks well for the esthetic taste of the people that one scarcely sees a window, even in the rudest log cabin, that does not contain flowers of some kind; and it is even the more remarkable since it takes considerable patience and care to bring them safely through the long, severe winters. Many of the houses are not plastered, and the flowers, if not removed from the windows and walls to places of greater warmth, will inevitably be killed by the frost.

Pansies, however, seem to be exceedingly hardy here, and they survive the winters out of doors, their cute monkey faces appearing saucily in the spring above their beds of snow.

The sun is very powerful in this climate, even in winter, and did it not come so late and go so early there would really be no winter at all; but, owing to the high mountains that shut the valley in, the winter sun has but little sweep and the days are exceedingly short.

Arbor Day was celebrated here in a very pretty manner by the Chautauqua circle of ladies in planting trees. Each one was named after a favorite author, your humble correspondent being among the honored number. The train of thought suggested by this unique celebration was quite interesting. Truly, this might be called a poetical garden, graced by its galaxy of writers. Wandering through it at even-tide in the distant future, what thoughts might not surge through the brain, what beautiful dreams of the imagination be conjured up by the low murmurings of the wind-swept branches! The tender strains of Longfellow would mingle pathetically with the English harp of Tennyson, the thunder notes of Milton attune themselves to the wistful cadence of his lowlier brother-poets. What a sublime song of harmony it would be, rising like an earth-hymn to the bright star-world above, and the planets, gazing downward through the leafy branches, would seem but the bright symbol of the star-flame that shines for every child of genius. In this thought-garden the very soul would thrill with higher aspirations born of the invisible atmosphere of noble dreams and ambitions.

I think were all the gifted poet-souls on earth and could wing their way to this far-off western world, they would bless the fair and loving hands that there gave delicate tribute to those who have graced the world of song.

Lost in such thoughts as these, one might almost wish this world were not so prosaic and oftentimes commonplace, yet those who seek will find, and there is a noble and poetic side to nearly every phase of life. It depends upon the eyes that see and the ears that hear. The world is always beautiful to those who see clearly, and so may life be, under any circumstances, to those who have the spiritual insight, the key that unlocks the doors of hope and knowledge. We must not shut our eyes would we behold the flowers growing at our feet, and how often are they compensation for all the deluding mountain hights we cannot, dare not, climb. In looking toward the far-away, inattainable objects that allure us, we are prone to forget the quiet sweetness of the pleasures within our grasp.

Yet the inexplainable mysteries and sadness of life follow us everywhere, and nowhere are the vicissitudes of life more clearly shown than in this mining camp. Preposterous as the idea is, one could almost believe in "luck" when he sees the surprising manner in which fortunes are made by some and lost by others. One man comes to the camp and becomes a bonanza king; another comes, risks his all, and becomes a beggar. Surely it would seem as if the decrees of fate were most arbitrary, yet I believe undeniable all this apparent inequality, the great law of compensation is supreme. For every gain we must lose something, and the man who reaps a million shining dollars may lose that which no money can buy. So the man who remains poor and humble may retain that which is dearer and more precious than gold. I think God never takes away without giving, only sometimes we are so blind we cannot see nor understand.

They are the wise ones who do not risk their all in the mines. Thrift and industry will succeed anywhere, and as the town grows, those who help to build it up will grow with it.

This camp has undoubtedly a future of great promise. New strikes are constantly being made and the mines and tunnels already worked are rich in mineral.

Two railroads will probably enter Aspen next fall. This will change the aspect of things considerably. Mine-owners will set to work in earnest then, for there will be little difficulty of shipping ore, and it will bring improvements and advantages to the town.

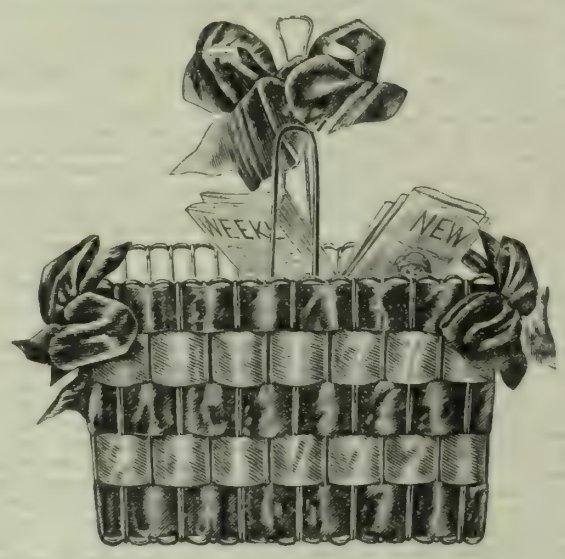
Even now this little mountain city, isolated so entirely from the rest of the world, is a marvel in its way, having many of the improvements of larger cities, such as electric lights and water works; and when one considers the fact that it is 50 miles from any railroad, and its only connection with the outer world a stage road, over snow-clad mountain ranges, then, indeed, the energy and determination of its pioneers seem wonderful.

Nearly all of the freight is brought over the high passes in large wagons, to which are attached from 4 to 12 or 14 horses, and it is a wonder to the uninitiated as to how these immense freight teams ever cross the range in safety. Some of them do not, as is attested by the wrecks strewn along the precipices in these steep places, but considering the danger, there is slight loss of life or property.

The burro is one of the most essential features of the mountains. This little pack animal is invaluable to the mountaineer and the freighter. The pack train coming down the mountain road is a novel sight to the tender-foot. These queer little animals, bearing packs sometimes larger than themselves, are most comical to look upon, their huge ears flapping disconsolately above their loads; but their patience and endurance excite the sympathy of the beholder. In the spring, when the roads are almost impassable, these enduring creatures take the place of the freight-teams, plodding with meek indifference through the mud and storms. Horses cannot take their places, and without them the people of the mountains would suffer many inconveniences.

The melting of the snow on the range has made the roads very bad, and it takes the stages two days now to make the trip from Granite—a journey which is usually made in one. In some places passengers have been obliged to walk part of the way. The poor horses are most to be pitied, struggling through the soft snow and mud. But men are now at work on the road shoveling out the snow, and it is hoped the roads will soon be in good condition. There is a good deal of travel in this direction at present, and there will probably be a great increase when the roads become passable. During the winter and spring the mines are rather inaccessible, but soon the climb up the mountain-sides, though arduous, will amply repay one in beauty and interest. Some of the mines are so high that at night their lights shine like stars against the somber shadows of the mountains, seemingly on a line with the Pleiades and faintly rivaling the wondrous orbs of Venus and Jupiter who nightly pass above and beyond them. So do our poor human eyes measure the illimitable distances, matching the puny lamps of men with the vast star-world of God.

Aspen, Col., May 21st.



A WALL POCKET FOR NEWSPAPERS.

A Neat Wall Pocket.

Wall pockets are often quite an aid in breaking up the waste of a plain wall, and they are always handy receptacles, aiding to keep the table clear and still have the papers within reach. The engraving on this page shows how a pretty pocket can be made of wirework, with ribbons interwoven and with bows at the corners and top. Where the colors are well chosen, the effect is very charming.

There are many styles of pockets which do not depend upon store goods in the shape of wirework. A neat one can be made of matting bound at the edges with ribbon and rolled at the bottom to form a cylindrical pocket, in and out of which papers may be slipped. The decorations may consist of applique sprays of vine blossoms and a large bow of ribbon at one corner. A ring fastened to each upper corner may provide the means for suspending the pocket, the rings being passed over nails secured in the wall.

HE TOOK IT BACK.—A friend of mine, a musician and a wag, was approached after a certain concert by the indignant father of a young lady who had on that occasion made her first formal public appearance, and who had proved conclusively, by the way, that she could not sing in tune, whatever her other merits might be. "Say," exclaimed the angry parent, "I just heard a fellow in the lobby say that Lizzie flatted. What the dickens is he talking about? *You* heard her sing, and *you* know. Did she sing flat?" "Oh, no," replied my friend, gravely; "she didn't sing flat. The trouble was that *the piano sharped on her a little.* Those pianos will do it now and then. I've noticed it before."

Boys and Girls and Farming.

I. P. Roberts, professor of agriculture in Cornell University, delivered an address recently upon the subject of "The Boys and Girls of the Empire State," a synopsis of which is as follows:

We have met to-day to sow the seed which we trust may bring an abundant harvest in the future. How closely boys and girls resemble trees. Some trees grow straight and handsome—these are the dudes. Some are sturdy and tough—these resemble those men who cross seas and found new empires; these are they whose examples yield good influences. As with the trees, so with the boys and girls; they must be nursed and trained. There is much for them to do, and the way to get this done is to give them credit for that which they have already done. Some complain that the boys are being educated above their work. The pessimist says that the smart ones all go to the cities; if so, the dull ones have done considerable good work. The grain raised annually upon the farms of the United States would load a train one and one-half times the length of the world's circumference. Each June morning there stand upon our broad domain 8,000,000 cows to be milked. Then think of the cotton, rice, sugar, fruit, etc., annually produced on our farms. We glut every market of the inhabitable globe with our produce. The earth may bud and blossom, the cattle feed upon a thousand hills, but all in vain, if the young grow up indigent and ignorant. Our Government lays down lives by the thousands to save this nation for the coming generation. Shall we do nothing to prepare this generation for the reception of such a gift? Boys and girls, I come to you with plain words. I warn you that you cannot battle with this intensified civilization without knowledge. If you fail to fit yourselves to grapple with the questions of the day, say nothing when you find that the world has nothing for you to do except to become a hewer of her wood and drawer of her water. You cannot become learned without labor. If you think that the world owes you a living, that all this vast wealth will some day become yours, you will find to your sorrow that the world owes no man a living, that success comes only through toil. Ninety-nine per cent of all the boys and girls are born poor. This is a blessing, for toil and labor elevate. Sow if you would reap. In former times muscular strength ruled the world; now it is intelligence. A gloved boy of to-day will reap more grain than an army of his ancestors. The world wants painters of portraits as well as painters of houses. If wealth is not used to gratify that taste for the beautiful which God has given us, then it will corrupt and debase. Are you, young men, I ask, fitting yourselves for the work of life? Our ancestors wrought out inventions that enable us to rest. The dress of our mother, for instance, cost months of labor. The same now costs but two days' labor. It took your grandfather and team one hour to haul a ton of salt a mile, thus earning in your money 2½ cents per hour. How would you like to work for your grandfather? With these advantages can you find no time for study? I do not mean read; we read too much. Reading is living upon the thoughts of others. But an hour of solid thought is an hour of hard work. Read no trash; there is no time for it in this busy American nation. Study and work; fit yourselves for some honest calling. The world cares not for you unless you bring her something that she needs. A man stands at a table and with knife in hand carves a fish. We call him a fish-monger. There at his side, before a similar table and with a similar knife, stands a man carving the same kind of a fish. Him we call Agassiz. Thus, think as you work, if you would become an Agassiz and not a fish-monger. Remember whose sons and daughters you are. Your ancestors may not have had long pedigrees, but they had sterling worth. Reserve force is my closing thought. We admire and honor the athlete who has stored up in his muscles more strength than he is ever called upon to use, the intellectual giant whose store of thought seems exhaustless. Therefore, store your minds with useful knowledge, train your thoughts that you may have such reserve as shall stand you in time of need—reserve force, physically, mentally, morally.

WOLFF'S LION.—One of the most celebrated sculptors in Berlin in Albert Wolff, and one of his works, a lion, is in the Thiergarten. A young gentleman from the Hub is now making the grand tour to improve his mind. He writes home that he is much pleased with the German capital, but does not think the Berliners very intelligent. "The other day I took a walk in a pretty park called the Thiergarten, and saw a very handsome work of art representing a lion. Anybody would know it was a lion. But they don't seem to know much of natural history here, as they have marked this particular work 'A Wolff.' Think of it! Such a thing could not happen in Boston. And look at the spelling!"

A MAD DOG visited a town in this State a few weeks ago. Subsequently a child died of hydrophobia, and every dog in the place was slaughtered. A man died in the same place of delirium tremens a few days later, but up to the hour of going to press a war had not been made upon the whisky there.—*Norristown Herald.*

YOUNG FOLKS' COLUMN.

My Boys.

[Written for the RURAL PRESS by AUNT SUSIE.]

Aunt Susie has three little boys,
As good as good can be,
Only when King Temper reigns,
Then naughty boys we see!

With frowns, and scowls, and angry looks,
Whose toys are tossed about,
And little clothes thrown here and there,
All in a fearful rout.

And so the battle rages on,
'Twixt Temper King and Love,
One as fierce as the lion,
One as meek as the dove.

At last King Temper yields to Love,
He loses in the battle so,
For every cloud, however dark,
Has a silver edge, you know.

Then little arms twine round my neck,
And eager lips do say:
"Aunt Susie dear, I sorry now,
I'll sure be good all day!"

Then all the angry looks and words
Quickly are forgiven,
Even as Christ bids us do,
"Until seventy times seven."

The Lost Spurs.

[Written for the RURAL PRESS by M. B. D.]

"Alvah," said Mr. Tay to his son, who stood mixing great quantities of bran and sour milk together for pig feed, "you may throw the saddle on Kit and take a ride for me after the chores are done."

Alvah looked up with a flash of pleasure in his eyes. He could imagine nothing more pleasant than a ride over the hills in the pure air and sunshine. With his ladle, he gave the contents of the tub a quicker whirl, and dipped out the breakfast for the pigs with more than usual cheerfulness. Down splashed the food into the trough, and the pigs squealed in chorus, expressing their eagerness to begin the meal. He watched them a moment. They ate so heartily and with so much satisfaction that he liked to see them.

He brought in the wood for the day and piled it neatly in the wood-box, behind the stove; then he saw that a good supply of water was drawn from the spring. All of his work was done as usual, without haste or slight. Alvah was as prone to carry the "lazy boy's load" as any other; but his father, who was very methodical in all his work, never permitted his son to do otherwise than to follow his own example.

He had helped to harness the horses for the hired men, and had driven the lively calves through the bars into their pasture. When he felt at liberty to saddle Kit, with the curry-comb he smoothed down her sleek sides, and he patted her velvet-like nose, that seemed so sensitive to his touch. Kit's brown eyes expressed the fondness that he had won by always being kind to her. He hoped to own her soon, for his father had promised to give Kit to him upon his next birthday, if his conduct should merit such a reward. After this, he found his work very pleasant. Every good action, he knew, brought Kit nearer to him.

"Well, I am ready now, father," said he, after he had seated himself in the saddle and ridden around to the shed where his father was at work.

"You may ride up to old Mr. Culver's, and get my Mexican spurs. No need of being in a hurry, but don't stop on the road anywhere."

"Whew!" thought Alvah, "a six-mile ride," and he would have blown a long shrill whistle to express his satisfaction, if that would not have been disrespectful.

Kit started off over the winding road as gaily as if she too enjoyed the prospect of so much pleasant exercise. The hills were green and the road hard and smooth. For a couple of miles Kit galloped along, and then they had to leave the turnpike to follow a bridle-path that wound up the mountain-side. This track shortened the distance by a mile and a half; but it lay through woods and thickets so wild and lonely that Alvah preferred it to the greater length of the high-road. Flocks of quail rose from the chaparral with loud whirrs as he passed, and now and then a rabbit started from some thicket and sped with long bounds away out of sight.

After awhile he stopped for Kit to get breath, and, in looking around, spied a rude nest, built in the broken trunk of an old oak. Directly he rode over to it and looked in it. There lay two small white eggs, and when he touched them he could feel that they were still warm from the mother-bird's wings. A pair of wild doves fluttered anxiously about, in fear of the stranger so near their nest. He did not stay to tease them, but, as Kit had rested, started on up the path. While he rode through the woods and bushes, he even wished that he might meet a bear or a wildcat. Kit was so fleet he would not have been afraid if he had; but before any such animal appeared, he caught sight of Mr. Culver's chimney above the trees. Soon he rode up to the gate, and, reaching down from the saddle, slipped off the iron band hoop that fastened it to the last post of the fence. Two dogs gave loud barks to warn their master that some one was coming.

Mr. Culver came out of his dwelling, which was a large cabin with a couple of rooms, from one of which rose the chimney, and at its base a big open fireplace glowed with burning wood. The old man lived by himself in that lonely place.

Alvah told his errand, and Mr. Culver invited him in.

"You must be hungry, my boy," he said, after Alvah had seated himself upon the bench which had been offered to him.

A kettle of beans hung bubbling from the old-fashioned crane over the fire, and a pitcher of milk had been set on the hearth to warm. Mr. Culver placed a loaf of bread and some dishes on the clean pine table, and took up a portion of the beans in a deep yellow bowl. With the hot milk he filled two mugs and invited Alvah to lunch.

How delicious that simple meal tasted! The bread was fresh and sweet, and the meat, that had been cooked with the beans, was hot and tender.

"Have some of this dried apple-sauce," said Mr. Culver, holding a large spoonful over Alvah's plate; but he had already eaten enough.

After the meal was done, he took Alvah over the yard and barn. It was such an odd, wild place all about. The woods grew up to the gates, and woodpeckers and bluejays lit on the cabin roof. Mr. Culver sprinkled some grain on the ground and called his flock of turkeys, which came from the thickets and brought with them a little wild quail to feed. Alvah thought what a fine thing it would be to have a quail among the flock at home, and resolved to tame one if possible.

When it was time to go he fastened the keen steel spurs to the back of the saddle and started homeward. He rode on until he came to Littlejohn's creek, where the water was so high that he had to hold his feet up to keep them from getting wet. He was looking down into the smooth, clear stream, when his eyes chanced to rest on the back of the saddle where he had tied the spurs, and he saw that they were gone. Anxiously he turned back to look for them over the road which he had just passed. Although he went back several miles and carefully watched the ground, he saw no traces of them, nor did he meet any one who might have found them. At last he thought they must have fallen into the creek. When he recrossed it he looked down at the pebbly bottom as carefully as he could, but had to give them up, as the hour was growing late.

When he reached home his sister Jennie said that their father had gone to town. He put Kit in the stable and gave her a generous portion of hay. Losing the spurs took away all the satisfaction he would have felt if he had been more careful. He dreaded to meet his father and tell him how careless he had been.

"I will not be sent again upon such an errand very soon," he kept thinking. Another thing worried him. He would soon be 13 years old, and, as he was very fond of Kit, he had tried hard to do well.

At dinner-time Mr. Tay had not returned, so Alvah did not see him until the next morning at breakfast. When the meal was over, a neighbor rode up to the house and told them some sad news. Mr. Culver had died in the night. They all felt sorry and very much surprised, although he was over 70 years old. Mr. Tay said he would ride over with his neighbor, to do all that he could for him.

A wicked thought came into Alvah's mind. "I can tell my father that Mr. Culver did not give me the spurs, and he will never be the wiser; or that he had already sent them by some one else." He thought of this idea all day. It was a great temptation, for his father was rather stern, and he so wished to be sure of owning Kit that he felt he could not risk the chance of making him angry.

At dinner-time, Mr. Tay was engaged in talking over the sad news, and Alvah did not speak of the spurs. The hours slipped away until the clock struck ten, his bedtime, still he had not spoken; and he was thinking of slipping off with that duty undone, when he felt ashamed of acting so cowardly.

"Father," he began, almost before he intended to speak, "I lost those spurs that you sent me for yesterday. It was somewhere between the bridle path and Littlejohn's creek, I think, and I went all the way back looking for them, but I could not find them."

He waited for his father to speak, but as he only looked surprised, Alvah went on, humbly: "I am very sorry. I did not mean to be careless."

"That does not mend the matter much, does it?" inquired Mr. Tay.

Alvah stood a moment and hoped that his father would say something more; but as he did not, he answered "No," and wished him good-night.

After he had reached his own room, he was surprised at the amount of satisfaction his telling the truth gave him, as he came to think it all over.

"I have done right, and even if I lose Kit, that is better than doing a mean thing to get her," was his last thought.

In the weeks that followed, he heard nothing more of the lost spurs; still he did not forget them, and he often wondered if his father had forgiven him for losing them.

When his birthday arrived, no one mentioned it until dinner-time. Near his place at the table, his mother set a large frosted cake, saying that "she had made it in honor of his thirteenth birthday." As the dessert was brought in, Alvah cut the cake into 13 pieces and passed it around to them all. The dish was returned to him, and the pieces that had been taken showed that a folded slip of white paper, bearing his own name, had been placed beneath the cake. He opened it eagerly and found that it was a deed of gift, signed by Mr. Tay, which made him sole owner of Kit.

He thanked his father heartily, and was so glad that he could scarcely wait until the meal was over, he wanted so much to go out to the barn and take possession of the long-wished-for prize. Kit never looked so fine to him as when he led her up to the garden-gate for his mother and the girls to see.

His sister Jennie said that she had a secret to tell him.

"Mamma told me not to let you know until this evening. Once you came awfully near losing Kit. After you lost the spurs, Ed Curtis found them and left them at the postoffice, where they were given to father the same evening. When you delayed telling him, he did not know what to think, and you looked so anxious that he wondered if you were not planning some story. It was lucky for you that you did tell him all about it."

Alvah said nothing, as he patted Kit with a proud air of ownership, but he thought that telling the exact truth promptly should be one of the good resolutions added to the list, which he had made that day, to keep throughout the year.

GOOD HEALTH.

Valuable Suggestions on Diet.

Most authorities are of opinion that cheese is indigestible, yet even on this point doctors cannot agree.

A distinguished French chemist has suggested that to make cheese digestible, a quarter of an ounce of potash should be added to every pound of cheese; while a German chemist has experimented upon several kinds of food—such as cheese, meat, milk and eggs—and he boldly declares that cheese is no more indigestible than meat and many other articles of diet.

Suppers are usually condemned. Some doctors assert that suppers are not only unnecessary, but positively harmful; that sound sleep cannot be obtained after them, and that three meals a day are sufficient.

On the other hand, others are of opinion that a light supper is necessary to procure sound sleep. After a meal, they say, blood is drawn toward the stomach to supply the juices needed in digestion. Hence the brain receives less blood than during fasting, becomes pale, and the powers become dormant. Sleep, therefore, ensues.

A doctor says that recently he was called at 2 A. M. to a lady who assured him that she was dying. The body was warm, he says, the heart doing honest work. To her indignation he ordered buttered bread to be eaten at once. Obeying, the "dying" woman was soon surprised by a return of life and a desire to sleep.

Milk is generally considered a peculiarly nutritive fluid—indeed, a perfect food—and therefore suitable for persons of all ages when it agrees with their stomachs; yet no less an authority than Sir Henry Thomson states that "for us who have long ago achieved our full growth and can thrive on solid food it is altogether superfluous and mostly mischievous as a drink."

He also says that the primary object of drinking is to satisfy the thirst, and that water is more powerful to this end when employed free from admixture with any solid material. Chocolate, thick cocoa, or even milk, are therefore not so efficacious in allaying thirst as water.

"So plentiful is nutriment," he adds, "that the very last place where we should seek that quality is the drink which accompanies the ordinary meal."

In this respect, at any rate, Sir Henry Thomson is at one with the vegetarians.—*All the Year Round.*

PNEUMONIA AND TYPHOID—HOW TO CURE THEM.—A correspondent of the Baltimore *Sunday News* says in regard to pneumonia: If you will permit me, I will give an unprofessional remedy or means of cure by which nine cases out of ten can be relieved in less than 24 hours, and cured in less than three days, instead of a "couple of weeks' time." Give some warm stimulating tea to help counteract the cold. Apply as soon as possible a poultice of hot onions to the chest and renew the application frequently until relief is obtained. The onions should be mashed and heated with a little lard in a vessel suitable for it, or take some life everlasting—if it cannot be had, any common herbs may answer; boil it well with vinegar and make a mush with cornmeal. Apply a poultice of this as hot as it can be borne upon the chest of the patient and repeat at short intervals. The congestion will soon be relieved, the pain will cease, the blood will flow freely in its accustomed channels, and the patient will be out of danger in 24 hours. I would advise to be given at the same time, as a valuable assistant, a purgative composed of equal parts of cream of tartar and aloes. Some pills, which the family may have been accustomed to use, may answer just as well. The simple thing is to assist nature to throw off disease. The same treatment will cure typhoid fever, but in this disease I know of many cures having been made by simply putting mashed raw onions to the soles of the feet. In high stages of the fever they will soon turn dark; several applications generally give relief. They induce perspiration, extract the fever, relieve the pain in the head and effect a cure. If these simple directions are observed, there will be very few deaths reported in our city from pneumonia or typhoid fever.

DOMESTIC ECONOMY.

Household Hints.

A good breakfast dish is rice toast with poached egg, made thus: Boil some rice the day before and set away in a flat dish until morning. Cut it in slices, brush each slice over with melted butter, slightly grease the broiler, and broil over a rather slow fire. Butter the slices and drop a poached egg on each.

To make good egg biscuits, take one quart of prepared flour, a tablespoonful of lard and twice as much butter, a teaspoonful of salt, two cups of milk, the yolks of two eggs, beaten light. Salt the flour and sift it twice in a bowl, rub in the shortening thoroughly and lightly; mix yolks and milk together, and pour into a hole in the flour, work into paste with as little handling as possible; roll into a sheet half an inch thick; cut into round cakes and bake in a floured pan. Eat hot.

Very palatable lunch cakes, especially for the children who take lunches to school, are made thus: One cup of green-corn pulp, one tablespoonful of sugar and enough fine oatmeal to make the mixture sufficiently stiff to drop it in spoonfuls on the pan. Bake for 15 minutes and serve cold.

Another good luncheon material for picnics, etc., is sandwiches of cheese and eggs, and the filling for these can be made thus: Grate the cheese, and to each cupful add the yolks of three hard-boiled eggs, minced fine; rub to a paste with a teaspoonful of butter, season to taste with salt and pepper, and spread between buttered bread or crackers. These are nice made of graham bread.

A rich batter and fruit pudding can be made by the following recipe: Chop up one pound of apples and put them in a greased pudding basin (gooseberries, plums or any other fruit will do), and sprinkle sugar over them; now make a batter of one egg, six ounces flour, and one breakfast cupful of milk; one-half a teaspoonful of baking powder must be added to the flour. When the batter is smooth, press it over the fruit and steam gently for one hour; care must be taken that the water remains boiling and does not evaporate too much.

If your lettuce is not delicate enough for salad, use it for greens, thus: Cut it in pieces and boil it soft in water slightly salted; when cooked, drain every drop of water from the leaves. Put some flour in a pan with some butter on the fire, and let it cook until it is yellow; turn the lettuce in it, and let it boil once or twice. Pour some stock over the lettuce; let it boil once again, and just before serving pour in a little cream. A little nutmeg is sometimes liked.

The following is the way our grandmothers made muster gingerbread, which is still dear to their sons: Three cups of flour, one cup of molasses, two eggs, one large teaspoonful of soda, one tablespoonful each of ginger and cinnamon, and milk enough to form a dough. Rub the flour and butter together, and add the other ingredients. Roll it out in sheets, cut thin, and spread with molasses and water before they are put in the oven. They require a very moderate heat to bake them, as they scorch easily.

Recipe For Washing Clothes.

EDITORS PRESS:—Mrs. Sarah Jepson, of Sespe, Ventura Co., furnishes the following:

Cut soap fine (petroleum or borax preferred), and put in kettle of cold water. Place the clothes in at once. Heat, and stir occasionally till the water comes to a boil. (If the water is hard it should be broken beforehand by placing in it either concentrated lye or lye from hardwood ashes.) Take clothes out, and rub on a board. Rinse through two waters, doing with the last whatever of bluing may be desired. Wring and hang out on the line for drying. Putting in with the soap a tablespoonful of coal oil is recommended.

Mrs. Jepson also gives the following for the use of soap-root in washing flannels and silks:

Take soap-root, and after the husks have been taken off, put the bulbs into a sack and mash by pounding or otherwise; put into tepid water; rub the material in the water until the water becomes sudsy; put the flannels in, rub out and rinse, using in the rinsing water a little of the prepared soap-root. For white flannels the water should be blued a little. Wring and hang out.

This is a fine way to wash any woolen goods, even dress goods and silk handkerchiefs.

McD.

SUET PUDDING.—Three cups of flour, one of raisins, stoned, one-half cup suet, chopped fine, one-half cup molasses, one-half cup sugar, one-half cup milk, two teaspoons cinnamon, one of cream of tartar, one-half teaspoon soda; boil 1½ hours.

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Windmills—J. B. Sohn, Visalia, Cal.
Real Estate—Statham & Hyde, Fresno, Cal.
Home and Day School—Miss L. Tracy, Oakland.
Bellows—California Bellows Manufacturing Co.
Real Estate—John F. Deming, Vallejo, Cal.
Hay Presses—Geo. Ertel & Co., Quincy, Ill.
Insurance—Anglo-Nevada Assurance Corporation.
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Washing Machines—E. W. Melvin, Sacramento.
Irving Institute—Rev. E. B. Church.
Orange Trees—Japanese Tree Importing Co.
Sheep—A. G. Stonesifer, Hill's Ferry, Cal.
See Advertising Columns.

The Week.

This week has started the harvesting machinery generally in the earlier parts of the State, though the sickle had been put in earlier in a few instances. The canneries have begun on the cherry crop, the market shows nearly all summer fruits have entered, and though the season has been peculiar and late, June brings its wonted bustle and hurry. Following the hot wave described last week, there came a reaction in the shape of a cold wave, which in some cases touched the vines again—a thing quite rare for June, but no great injury is reported. The greatest sensation of the week in the higher latitudes was the earthquake which came upon scenes unused to such affairs and frightened but did not work injury.

In the great valley the chief topic is irrigation and how to get it. In Stanislaus, though there is much opposition to action under the Wright law, the proposition carried and a district will be formed which will include the city of Modesto. It seems that opposition comes from different sources in different districts—some do not desire irrigation at all and in others those who have already provided themselves do not want a recasting of affairs. The question must, of necessity, be a local one, and we trust in all cases it will be argued with moderation and consideration and settled so as to best serve the common good.

Judge-Made Law.

There is grim humor in the boast of an English barrister that no law could be made he could not drive a coach and six through. This is not always owing to any tergiversation in the structure and intent of the law, but to the finical and tortuous rules of construction that have grown up in the courts. There are many cases where a valuable piece of legislation has been set aside owing to a misplaced comma, the incorrect use of a word, the mistake of an engrossing clerk, when the intention of the law was perfectly transparent. Then there is an art in legislation that causes a law to fly apart before an influential litigant, like those automatic gates we see in country fields, when a driver comes along who understands the trick. The people are satisfied when the law is enacted, for there it stands square, massive, and solid in appearance, an iron safe in which their rights and equities seem safely deposited, but smart lawyers know the combination and some day they find their treasures gone.

A recent dispatch states that it is almost certain that the Interstate Commerce Commission will interpret the law under which it operates as permitting the making of special rates by roads under special circumstances. The law as framed by the House was very rigid, and absolutely prohibited rates not proportioned to distance, but when it got to the Senate the clause, "under substantially similar circumstances and conditions," was inserted. It is foreshadowed that under this clause the Commission will rule against a strict enforcement of the long and short haul provision. Now, whatever may be said pro or con on the wisdom and beneficence of this interpretation, it cuts no figure in this article. The point we raise is, is this a consistent and fair rendition of the Interstate Commerce Act? It is certain the House never intended such a malleable, fast-and-loose application of the measure. Mr. Reagan, who originated the bill, and for 16 years stoutly championed it in the House, protests against such a construction. Whatever may have been the object of the Senate in inserting the aforesaid ambiguous clause, it was certainly not understood at the time as intended to render elastic or inoperative the short and long haul provision. Senator Cullom understood this clause was to be strictly enforced, and made a rattling speech in favor of it. Senator Stanford so understood it and made an ingenious speech against it. Charles Francis Adams, whose acuteness in railroad law and literature is well known, in a speech given at a dinner of the Commercial Club in Boston, so understood it, and put himself on record as in favor of the general provisions of the Interstate Commerce law, and of the long and short haul clause in particular. It beats Prof. Pepper's ghost show, if the Commission can, by a skip of the pen, resolve this clause into a rather harmless specter. As the RURAL PRESS has said before, all such radical legislation is experimental, and if an application of it should be found too rigid at one point or lax at another, it is the province of Congress, in the light of experience, to put it in practical shape; but we are doubtful of the power of the Commission to interpolate into the Act a meaning that was certainly not in the mind of a majority of the law-makers.

Taking the most favorable view of the case in behalf of the Commission, it is as clear as daylight that their foreshadowed interpretation of the law is a strained one and likely to give umbrage to the very class whose grievances the law was intended to redress. Already the President of the State Farmers' Alliance of Minnesota has filed a vigorous protest before the Commission denying the jurisdiction of that body in allowing the railway companies to make special rates. This protest was prepared by the executive committee of the Alliance, and takes the ground that "such business interests as can be sustained only by reason of the suspension of the fourth section ought not to be sustained at all. It is better that the business of the country be left to the natural laws of trade than that a few favored persons in certain places should be able to organize and carry on colossal enterprises because of the advantages in use of the railways of the country."

The Crops.

We like a large crop as well as any one, but as we have often said before, we do not like reports of large crops when the crops are small. We get too much of this, either in the interest of the "boom," which must never admit anything unfavorable, or in the interest of the buyers, who want to put in their own pockets the price of a small crop instead of distributing it among the many who need it to partly compensate for their missing bushels of grain. We have claimed all along that this year's wheat yield was being placed far too high by the roseate forecasts of the daily papers. This view is now fully verified by the publication of the reports from experts, received by Mr. Friedlander, secretary of the S. F. Produce Exchange. These reports are so important that we give the roll of the chief grain counties, reduced to table form, as follows:

County.	Percentage of Crop of 1886. Wheat.	Barley.
Colusa	90	100
Sacramento	135	...
Yuba	115	200
Yolo	90	90
Sutter	120	150
Butte	120	135
Tehama	125	135
Contra Costa	70	90
Alameda	40	65
San Joaquin	85	90
Stanislaus	65	65
Merced	25	35
Fresno	50	50
Tulare	50	55
San Mateo	20	55
Santa Clara	20	55
San Benito	35	45
Santa Cruz	125	125
Monterey	30	50
San Luis Obispo	50	80
Santa Barbara	65	80
Ventura	40	80
Los Angeles	30	35
San Diego	25	45

The foregoing shows that the only great grain counties which can be congratulated this year are the group of counties in the upper part of the Sacramento valley. The other counties which show an increase over last year's figures are, as a rule, but small grain-producers. On the other hand the deficiencies fall just where every per cent lost means a great deal of grain, and some of the losses are appalling. It is because of this great difference in the significance of the figures as applied to different counties, that no averaging would be of any account, except one worked the problem out carefully from the stated production of each county. Any one familiar with the facts can learn enough to convince him of the unfavorable character of the above report without computation. As a sketch or deduction from the reports which we have arranged in tabular form above, Mr. Friedlander says:

From the reports received it would appear that the northern half of the State, including Sacramento county, will turn out about the same amount of wheat that it did last year. Estimates on the San Joaquin valley are very difficult to make on account of the spotted character of the fields. Generally speaking, it may be said that the west side will produce next to nothing. From the river to the railroad the crops are not much better. From the railroad east there will be a good deal of grain, but not as much as this same belt of country produced last year, so that the whole valley may be put up at 60 per cent of what it turned out in 1886. From San Francisco south through the belt of country west of the Coast Range, reports are bad, and it now looks as though the yield for this part of the State, including all the coast counties, would not be over 40 per cent of what was raised in 1886.

An interesting sketch of the barley outlook is given in another column. The position there taken will be found to be sustained by Mr. Friedlander's report, in which he speaks of barley as follows:

Owing to a great extent to the increased acreage, the reports on barley average better than those on wheat, although the general conditions apply as well to one cereal as to the other. What may be called the barley sections proper all show a decrease, while the part of the State from Yolo county north shows an increase. Last year the San Joaquin valley had barley to spare; this year it will probably be forced to import to supply a deficiency. The islands at the mouth of the San Joaquin and Sacramento rivers that last year produced but little will this year turn out a large amount of barley. Taking it as a whole, the crop will be less than that of 1886.

Evidently 1887 will not figure as a great grain year. It will not be long before we can begin courting favorable glances from the triply alliterative eighteen-eighty-eight.

IT is decided that the Oceanic steamers will stop at San Diego.

Lubin's New Pulverizer.

David Lubin, of Sacramento, with the wonderful energy which is characteristic of him, has now brought to practical success an implement for soil pulverization which is altogether new in its method, and which bids fair to make a great stir, not only in the soil, but in the old means of tillage. His attention was called some time ago to the poor pulverization on some kinds of land, which was all that could be secured by harrows and cultivators. He was also troubled by the uneven surfaces left between trees and vines, by plowing and harrowing, and sought to obviate them. For several months he has labored to bring his ideas into practical working shape and has succeeded, both in getting Government sanction to his invention, by patents obtained through Dewey & Co.'s agency, and by actual fieldwork has satisfied practical agriculturists of the value and feasibility of his implements.

A field trial of Mr. Lubin's implement was held near Sacramento last Saturday morning, the following account of which is given by the *Record-Union:*

The trial was a complete success, and demonstrated the usefulness and novelty of the implement. The Lubin pulverizer consists of a series of wheels, playing independently upon a common shaft in a frame drawn by horses. The periphery of each wheel is armed with chisel-shaped teeth, extending outward six inches, and are about 3½ inches apart, which penetrate the earth as the wheels move forward. A cross-bar bears steel spring teeth curved forward—designated as crushing bars—so that they depend between the wheels. The bar bearing these teeth is operated by a lever to raise and lower them. When it is desired to stir up land packed by recent rains, the crushing bars enter the earth point first, tearing up the crust. The wheels rotating, carry the wheel teeth between the crushing bars, pulverizing the clods to a fineness in proportion to the gauge at which the machine is set—*i. e.* the width or space between the wheels and the crushing bars. Reversing the tongue for the horses, a different effect is produced, and puts the crushing bars at the rear, so that they follow the wheels and meet the earth curve first, instead, as in the first case, of preceding the wheel and meeting the earth point first. The revolution of the wheels now sends the wheel-teeth into the plowed ground and carries the earth to the rear against the curve of the crushing bars. As this motion is rapid, the clods and earth are dashed against the crushing bars, and the result is a shower of finely pulverized soil, which pours from between the crushing bars. The motion described is unlike that of harrow or cultivator in this, that in the latter there is a dead pull through the earth, while with this machine the earth is lifted up, the solid pieces broken, and the pulverized result showered back from above, thus completely loosening the soil, aerating it, and leaving it evenly and finely prepared, and without ridges, and thoroughly light and loose. The pulverizer stirs the soil the full depth of the wheel teeth described. The inventor stated his claims for the machine to those present about as follows: "That it does away with the necessity of irrigation on lands where thorough cultivation takes the place of irrigation, or renders it unnecessary." "That it reduces the most stubborn soil to the fineness and texture of alluvial bottom lands." "That the cultivation and tilth is uniform and to a depth of from four to six inches." "That it does not pack the soil but leaves it soft and mellow." "That the machine is as valuable for putting in grain as for fruit and vines. A broadcast seeder is placed on top so that seeding, cultivating and covering is done at the same time." "That it is simple in construction and light of draught."

"That such unbroken particles as are left by the machine are all on top of the soil and no clods are left beneath the surface."

"That while by other methods clods are broken accidentally, in this case they cannot escape, but are crushed intentionally."

All those present at the trial of the machine were unanimous in expression that it does what its inventor claims for it, and excels anything yet tried with the same ends in view, and that for thorough cultivation it will prove a great aid to agriculture.

Mr. Lubin's pulverizer will be made by the well-known firm, P. P. Mast & Co., of Springfield, Ohio; and H. H. Linnell, of Sacramento, has been appointed agent for California.

THE PURE-WINE STAMP LAW.—This Act, which went into effect June 5th, does not work smoothly. The large wine-dealers of this city have sent circulars to wine-producers that they will not buy their wines unless an analysis of each lot is furnished with the wine. This would throw upon the producer the burden of having his wine analyzed and paying for it, each time he made a sale to a merchant. A meeting of the Grape-growers' and Wine-makers' Committee was held in this city this week. Captain St. Hubert, of Fresno, moved that a committee be appointed to confer with the merchants and report at the next meeting of the Viticultural Commissioners on the 21st inst. The motion was carried and the chairman appointed as such committee Captain Chamon de St. Hubert, of Fresno, H. Merriam, of Los Gatos, H. A. Pellett, of St. Helena, B. H. Upham, of San Francisco, Julius P. Smith, of Livermore.

Earthquake Detectors.

One of the most violent earthquakes which has visited the mountain region of the State occurred on the morning of June 3d. The commotion was felt as far east as Virginia City and is said to have been the first one which was severe enough to make itself felt in the lower levels of the Comstock—thus showing that the miners cannot count upon freedom from these phenomena, as they have claimed hitherto. The shocks visited the line of the Sierra Nevada and its foothills and extended westward a certain distance upon the valley, the oscillation being quite marked at Sacramento. Reports also come of continued disturbance in the mountains in Arizona and southward in Mexico—a veritable volcano being reported as one of the resources of the latter country.

In view of these occurrences it may interest our readers to learn of the construction and operation of the instruments devised by science to make accurate record of earthquakes and which are called "seismographs." In view of the fact that people on this coast are specially interested in disturbances of the earth, a complete set of these earthquake recorders has been procured for the Lick Observatory, made from designs of Prof. J. A. Ewing, of Dundee. We give engravings of these self-registering seismographs on this page with description extracted from Prof. Ewing's note in *Nature:*

In the design of these seismographs, the object has been kept, in view of making them easily capable of use by observers who have not made seismometry a special study. They are entirely self-recording and require little attention during the long intervals which must, in most situations, be expected to elapse between one period of activity and the next.

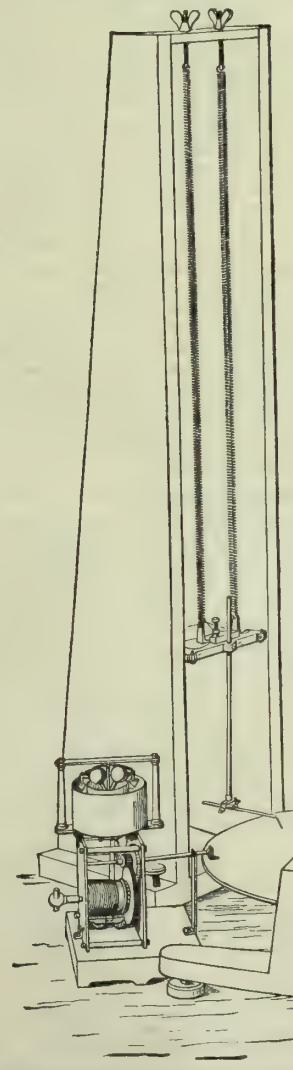
One group of instruments is arranged to give a complete record of every particular of the movement by resolving it into three rectangular components—one vertical and two horizontal—and registering these by three distinct pointers on a sheet of smoked glass, which is made to revolve uniformly by clockwork. A single earthquake always consists of many successive displacements of the ground, hence the record traced by each pointer on the moving plate is a line comprising many undulations, generally very irregular in character. The amplitude, period and form of each of these are easily measured, and by compounding the three we obtain full information regarding the direction, extent, velocity and rate of acceleration of the movement at any epoch in the disturbance.

This group of instruments in shown in Fig. 1. In the center is a plate of smoked glass, which gets its motion through a friction-roller from a clock furnished with a centrifugal governor, acting by friction fluid, and balanced so that its speed is not sensibly affected by the shaking of the ground. The clock is started into motion by means of a Palmieri seismoscope, which appears in the figure behind the plate on the right. This is a small common pendulum, whose bob carries at the bottom a piece of stiff platinum wire that projects into a recess in a cup of mercury below—the recess being formed by an iron pin standing lower than the surface of the surrounding mercury. On the slightest shaking of the ground, contact with the edge of mercury takes place, and this closes a circuit which releases an electro-magnetic detent and starts the clock. This occurs during the preliminary tremors which are usually found in advance of the main movements of an earthquake. The same circuit starts another clock (of the escapement type), which fulfills two functions: It marks time on the revolving-plate during a part of the first revolution, and then continues to go as an ordinary clock, so that, by inspecting its dial afterward, the interval which has elapsed from the occurrence of the earthquake is known, and the date of the shock in hours and minutes is thus determined with as much precision as the phenomenon admits of. This part of the apparatus is omitted from the figure. The two horizontal components of motion are recorded by a pair of horizontal pendulums set at right angles to each other, but with their indices inclined so that they write side by side on one radius of the plate. The pendulums are supported on a single stand, but with independent adjustments for position and stability. Each has two pivots, consisting of hard steel points which turn in sapphire centers. At the pivots and at the tracing points every effort has been made to avoid friction. The indices are of aluminium, and a part of their weight is taken by springs (not shown in the figure), so that their pressure on the plate may be no greater than is necessary to produce a trace on the sooty film. The vertical component of motion is recorded by the instrument which appears behind the clock. A massive bar, free to move vertically about a horizontal axis, is held up by a pair of long spiral springs. Its equilibrium is made nearly neutral by applying the pull of the springs at a suitable distance below the horizontal plane through the axis of support, in the manner described in the article, to which reference has already been made. A bell-crank lever with a jointed index gives a multiplied trace of the apparent vertical oscillations of the bar, which correspond to vertical displacements of the ground. In this instrument, as in the others, sapphire centers are used to minimize friction.

Records inscribed on the plate are preserved by varnishing the plate and using it as a negative to print photographs. The motion, as recorded, is magnified to an extent which experience of Japanese earthquakes has shown to be desirable in dealing with disturbances ranging from those which are just recognizable as earthquakes up to those which are, to some extent, destructive. For great earthquakes, separate apparatus of the same type is designed, in which the multiplying indices are dispensed with, and the scale and style of the other parts are considerably modified.

Another and distinct instrument is the duplex pendulum seismograph, shown in Fig. 2. A massive bob is hung by three parallel wires from the top of a three-cornered box, and is reduced to nearly neutral equilibrium by being coupled by a ball-and-tube joint to the bob of an inverted pendulum below it. The two form a system which can be made as nearly astatic as is desirable, and so furnish a suitable steady point for the horizontal part of earthquake movement in any azimuth. The motion is magnified and recorded by a vertical lever geared to the upper bob by a ball-and-tube joint supported on gimbals from a bracket fixed to the box, and furnished with a jointed index which writes on a fixed plate of smoked glass. Records of the kind which the duplex pendulum gives are, of course, incomplete in two important particulars: they show nothing of the vertical motion (which, however, is usually a comparatively small part of the whole), and they show nothing of the relation of *time* to displacement throughout the disturbance. But they exhibit very clearly the change of direction which the movements undergo, and the actual direction taken by any pronounced element of the shock.

FIG. 1.—Complete Three-Component Seismograph, for Motions in all Directions.



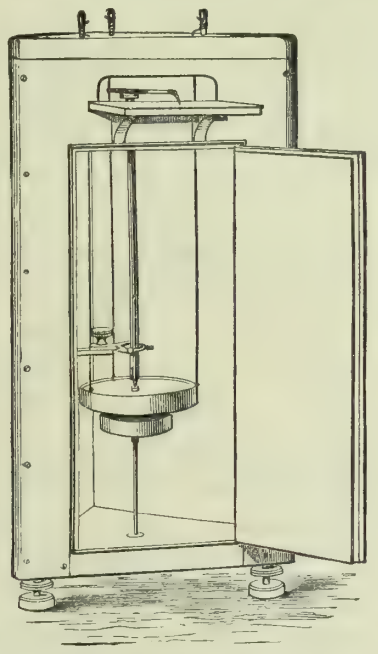


FIG. 2.—Duplex Pendulum Seismograph for Horizontal Motion.

SELF-REGISTERING INSTRUMENTS FOR RECORDING EARTHQUAKES.

A HARE, NOT A RABBIT.—During the excitement over the threatened importation of rabbits from Australia, last winter, some one made a loose assertion in print that our little California "cotton-tail" is very rabbit and burrows in the earth. This was denied at the time, and the *Appeal*, having submitted the question to a certain old hunter near Marysville, reports as follows: "He says that in all his experience as a hunter he has never known the cotton-tail to make a burrow of its own, although it will frequently bolt into holes made by gophers or other animals. He has made hunting his sole business for the past 30 years, and says that there used to be thousands of cotton-tails in this vicinity. He is very observant, and his testimony ought to be sufficient to settle this little point in natural history. It would appear that the cotton-tail is not in reality a rabbit, but a hare."

VALUABLE SHORTHORNS FOR NEVADA.—We learn from the St. Paul *Pioneer Press* of May 25th that at H. F. Brown's Eighth Annual Sale of Shorthorn Cattle, which took place the previous day, there was a large attendance and heavy bidding, and the sale was probably the most successful ever held in that city or State. Thirty-three head were sold, averaging $417 per head. The highest-priced animals were bought by W. J. Marsh, of Fort Churchill, Nevada, as follows: Wild Eyes Duchess 12th, $1450; imported Duke of Waterloo, $1500; Wild Eyes of Browndale 6th, $1800. These animals will be a great acquisition to the Shorthorn interests of Nevada, and we are glad our friend Marsh has captured them.

THE Pacific Kennel Club clearly believes in taking time by the forelock—having determined to hold a bench show April 5–7, 1888.

Southern California.

[NO. 5.—CONTINUED.]

[Editorial Correspondence.]

In continuing our notes upon Southern California, we now come to the extreme eastern portion of the great San Bernardino valley. At this point, and at an altitude of from 1600 to 1800 feet above the sea level, we find a plateau of some 10 or 12 square miles, which, for beauty of location and surroundings, fertility of soil, excellence of climate, facilities for irrigation, etc., cannot be excelled by any other locality in California. There are three centers of settlement near the central portion of this area, so near to each other that they must soon merge into one town or city. The several locations are now known as

Lugonia, Redlands and Crafton.

While this locality, taken as a whole, is unsurpassed in grandeur and beauty of prospect and scenery, it also possesses the most substantial elements of prosperity. The climate is that peculiar to the warm belt of the foothills in every portion of this and the neighboring valleys. The air is singularly dry, pure and salubrious, and especially adapted to persons suffering from pulmonary and nasal or throat complaints. As a place for home-seekers who desire a warm, dry climate, with plenty of water for irrigation and good drainage, by means of underground pipes, which preclude all possibility of malaria, it cannot be excelled. As an evidence of the healthfulness of the climate and locality it may be stated that the average of deaths here for several years has not exceeded 6 in 1000. This is only about one-third the average death rate of country places; and this, too, notwithstanding large numbers come here on account of ill health.

The Soil is a Rich Red Loam

From which the central locality—Redlands—takes its name. It is composed of vegetable mold and decomposed granite. Both climate and soil are peculiarly adapted to the culture of citrus fruits, while the deciduous fruits and vines also do equally well. In no other part of California or the world can better oranges be grown than upon the redlands of this locality. As an evidence of this, the fact may be cited that here and upon its counterpart at Riverside, seedlings almost invariably produce fruit of an especially delicious character. This locality is destined to become the garden of the State—the queen settlement of Southern California.

The Boom and its Progress.

The recent advent of the Atchison & Topeka railroad into and through the heart of Southern California, and the railroad competition thereby created, coupled with the unfortunate attacks of King Frost upon the orange groves of Florida, have gradually led to the getting up of numerous large excursion parties into that part of the State without the necessity of having to encounter the storms, snows and winter blockades of the Central route. These excursionists have seen and been charmed with the natural loveliness and climatic advantages of this truly wonderful portion of the Golden State. Nearly all who have made these trips are people of means, or invalids more or less well-to-do, who have become tired and disgusted with the winds and storms and snows of the Atlantic and Northern States, and have made the trip to escape for a season from the inclemencies of their Eastern climate. Under these circumstances large numbers have either settled at once or returned to the East merely to close up their business and return to make California their future home. The objective point of these excursions has generally been the city of Los Angeles, where thousands have purchased suburban homes in that vicinity or gone into business within the limits of that rapidly growing city. At first the overflow from Los Angeles was into Pasadena, one of the most favored localities in Southern California. Gradually, however, it was discovered that the farther back they went, up the San Gabriel valley, the better the climatic advantages. Riverside, with its vast spread of loveliness and floral and pomological beauty, attracted not a few. Ontario, Cucomongo and other places all along the beautiful San Gabriel valley, picked up many of the Eastern visitors and seekers for new homes. Still retreating up the valley in search of newer, and if possible, better resorts for health and other natural advantages, the tide finally found itself blocked by

the grand old mountains which look down upon the San Bernardino and San Gabriel valleys, and from whose lofty summits

"The eye may scan the distance from the mountain to the sea,
Where the quiet is delightful, and the prospect unsurpassed,
Where hill and valley, copse and orchard, and the mountain ranges mass,
'Midst the bloom of Nature's dressing, filling space with odors sweet."

Here, in this loveliest of Nature's valleys, nestled upon its eastern border, fully above all the surrounding country, looking down from its gentle elevation upon San Bernardino, Colton, Riverside and all the many settlements along the upper San Gabriel valley, may be found the delightful retreat of Crafton, the beautifully terraced Lugonia with its orange-fringed slopes, and the broad and luxurious plains of Redlands just blossoming into fruitage—a trio of natural loveliness nowhere else excelled, and separated from each other by imaginary lines of demarkation, but bound together by common locality, common interests and the manifest destiny of a great and common future. Well may it be said of this beautiful locality:

"Fair is the valley where the spring ever reigneth
Full in the light of the soft summer sun;
Blue lie the mountains above and around it,
Sleeping like Titans whose labors are done.

"See in the distance the snow-crowned Sierras,
Whereon the Ice-King reigns all the year round;
Far from his glance in the valley we wander,
Down where the wild flowers carpet the ground.

"Sweet is the perfume the zephyrs are wafting,
Star-like the blossoms the orange trees bear;
Rich is the promise of golden-hued fruitage,
Sure in this vale is the harvest so fair."

In writing of this locality we fully agree with Mr. Frank L. Morrell, who writes of it as follows: "If any one thinks he can describe Redlands upon paper, let him try it; and after he has exhausted his noblest efforts, let him pay a visit to the location of even one half-hour, and as he stands upon the commanding hights and drinks in the beauty of the spreading landscape at his feet, turns his eyes to the grand old mountains which, but a few miles away, look down from the clouds upon the quiet valley; quaffs long drafts of the pure, exhilarating mountain air, and feels the thrill of new life and energy coursing through his veins; gazes upon the beautiful homes, the magnificent orchards and the thrifty vineyards all around him—then let him read what he has written, and he will realize how impossible it is to reproduce Nature with a pen."

This locality was, at the time of our visit, some two months ago, a great center of attraction. The hotels were filled with visitors in search of health or homes. Real estate agents were driving hither and yon, each with one or more at his elbow in search either of a home or a good field for investment. New streets and roads were being laid out in every direction. Houses of brick and wood were going up as fast as laborers could be found to build them. Scores of plows were to be seen everywhere breaking up new ground or cultivating old. Orange orchards and vineyards were being set out; the streets were crowded with teams, hauling building materials, household supplies, merchandise, etc.; land which had already doubled and trebled, and in some places quadrupled in value within the past few months, was still going up; and everything betokened

A Busy Scene of Enterprise and Industry,

Which indicated, in a most unmistakable manner, an early and prosperous future for the large and important town which must soon cover the present site of the three localities named. Spacious blocks and trade palaces may never be realized there, but lovely homes, elegant villas, crowded hostelries, beautiful parks, extensive streets and shaded avenues will soon cover many square miles of this portion of the San Bernardino valley. What the future name of the town may be is as yet undecided; but the feeling is continually growing stronger that some common name should be decided upon. If we were allowed to make a suggestion, we would submit that of Lugonia, which is already well known as the postoffice name. It is short, easily pronounced and spelled, euphonious, and has no similarity in sound to any other town or city on the Pacific Coast. Moreover, it is derived from the name of the first settler who obtained a grant of all this portion of the valley from the Mexican Government. Surely his name should be kept in remembrance, and what more appropriate way to do so than to affix it to the future city which is to grow up on the land which he was the first to cultivate and improve?

A steam or motor road has been projected to connect this locality with Colton and San Bernardino and the continental system of roads which concentrate there.

Redlands and the Chicago Colony.

The Chicago colony, as it is called, has been one of the chief factors in giving the recent impetus to business in this neighborhood. It was organized some year or more ago, at the suggestion of Mr. I. N. Hoag, late of Sacramento, then a resident agent of the California Emigrant Society at Chicago. It consists of a membership of over 100 persons, mostly heads of families, who were largely prompted by the first California citrus exhibition in that city to seek new homes within the citrus belt of this State. A committee was appointed who visited California and thoroughly examined all the citrus-producing portions of the State, from Ventura on the north to San Diego on the south. After viewing all the desirable localities within that area, they finally decided upon a large tract of land lying between Redlands proper and Crafton, which has been purchased and is now being prepared for occupation as fast as money and labor can do it. A very large area has already been broken up, and the plows are still at work preparing for orchards and vineyards and in opening up streets. Preparations will be made for 40 or 50 families who are either already here or will come out during the present season. The committee which made the selection consisted of R. J. Waters, of Chicago, chairman, and H. C. Malone, of Grand Crossing; Jacob W. Ludlum, of Evanston, Illinois, of the Board of Directors, who said in their report that, "considering the soil and climate, the abundance and advantageous combinations of water for irrigation, and the perfect system of its distribution on the lands, transportation facilities, educational advantages, ample home markets and general surroundings, they could find no place equal to it." From the above names it will be seen that the membership of the association is not confined altogether to the city of Chicago. The success with which these gentlemen have already met will no doubt be the means of sending many more to this locality from that portion of Illinois. The land and water purchases which have been made by this colony are worth today fully three times what they have cost. Mr. Walters, with Mr. R. B. Lane, also of the association, are gentlemen of means and energy, and are personally superintending the general interests of the colony and the erection of buildings for banking purposes, for stores, offices, etc., at the new center of business, which will also constitute the railroad terminus for a time at least. There are now a dozen or more brick buildings at this point, in addition to a still larger number of wooden structures. A bank, known as the "Union Bank," has been incorporated, with a capital of $50,000. The officers are Curtis Wells, president; Samuel J. Hayes, vice-president; and R. B. Lane, cashier. The directors are Curtis Wells, R. B. Lane, S. J. Hayes, J. F. Drake, E. G. Judson, Louis Jacobs, H. M. Barton, R. J. Waters, Dr. Craig and R. J. Kimball. All over the Redlands tract, for two or three miles in extent, neat cottages or more elegant and pretentious dwellings are being erected. A company has been organized to erect, on the corner of State and Fourth streets, a hotel to be 80 feet frontage by 160 in depth. It will be three stories high, will contain 60 rooms, with a large observatory on the top.

The Episcopalians have secured both land and money, and have already prepared plans for a fine church building. Other denominations, the Presbyterians, Methodists and Baptists, have also secured lots for the same purpose. The Young Men's Christian Association will soon commence—if they have not already done so—a large two-story brick building for their use. From these facts it will be seen that Redlands is fast taking its place as a prosperous and growing town.

The Prospect House.

This is the only hotel now open in Redlands. It occupies a commanding site on the terrace which forms the eastern border of the settlement. The view from this house is magnificent. It is under the management of Dr. J. A. Mack, lately from Chicago, and is constantly full of boarders. It is one of the finest hotel sites in the valley, and will no doubt soon be greatly enlarged and improved in its architectural appearance.

Lugonia.

Which is located less than half a mile from Redlands center, is already rapidly growing in importance and population. A fine block of buildings is just being completed on the "Terrace," just opposite the postoffice, one portion of which will be occupied by the bank, and another portion by stores, offices, etc. All the land along the Terrace and the Sankey from this point to Dr. Stillman's vineyard—about one mile—has been laid out in lots for building purposes, with wide streets and avenues. The most of this land has been bonded to Mr. I. N. Hoag, formerly of Sacramento; at the time of our visit, he was making preparations to build a residence for himself upon one of the lots. Mr. Hoag has transplanted to his lot a large number of 8 or 10-year-old orange trees, which were taken up to make room for the bank building. They were all in full bloom at the time of removal, and at last accounts were doing well—not even losing the fruit which was just then setting. He will, no doubt, have the pleasure of surrounding his new home at once with a grove of bearing orange trees.

The Terrace Villa Hotel

Is a very handsome and highly ornamental structure, situated upon a slightly elevated terrace, near the center of the beautiful village of Lugonia. The view from every part of the house is both beautiful and grand. Lofty snow-capped mountains are seen at a distance upon three sides, with an open vista to the west, which looks for fully 60 miles down the San Gabriel valley. The hotel is located directly in the midst of an orange grove, with orange orchards and vineyards covering all the country around. It is also embowered in roses and flowering plants and shrubs of every variety. It is supplied with the purest mountain water and fitted up with every modern convenience. The table is supplied with the best of everything and elegantly served. The interior is roomy, well furnished, well ventilated and contains 48 rooms, 16 of which have been recently added to accommodate the rapidly increasing numbers of roomers and visitors. The dining-room of this hotel is one of the finest in Southern California. Mr. Frank Smith, the landlord, is well known throughout the central portions of the State as having formerly presided over the Piedmont house at Oakland and Highland springs in Lake county. The regular boarder or transient visitor will find in him a pleasant and accommodating landlord and a thorough gentleman, while Mrs. Smith is a host in herself—everywhere present, looking after everything in person from the kitchen to the parlor, making all her friends and guests completely at home in all their wants or pleasures. No pleasanter place for a visit or a domicile can be found in all Southern California. There is a good livery stable connected with the hotel, and nothing, in fact, is wanting to make it a most enjoyable place of resort at any season of the year, for here spring and summer are blended in ever and delightful presence from January till December. W. B. E.

THE VETERINARIAN.

Notes on Dogs and Dog Shows.

EDITORS PRESS:—Now that there is much conversation upon the topic of "dog shows," perhaps a few suggestions upon dogs generally may be in order. To say that the numerous breeds of these animals, from the Newfoundland to the pug, all originated from the process of man's selection, would be stating too much, yet it is a fact that we have done a great deal to alter the physical character of many of the different families. For instance, it is almost a recognized fact that the Scotch collie has descended in this manner from the common fox. These noble dogs undoubtedly belong to the oldest race of the canine species. Italian greyhounds are small or dwarfed by climatic influence and selection. And again things go to prove that the old-fashioned bull-baiting dog—the bull-dog—is a descendant of the mastiff. To my mind it is not correct to state that the greyhound has deteriorated in sagacity. If he is less affectionate than other breeds, it is due to the fact that he has not been made so much the companion of man. The weight and grand convolutions of the brain of "Master Magraith" do not favor the theory of degeneration. That this family of dogs hunt by sight and not by scent is interesting.

Preparing Dogs for Show, Etc.

"Faking," although a slang phrase, is expressive; and by it we understand that certain dishonest means have been adopted to enable an animal to make a good impression on the judges. In the case of fox-terriers, black spots are often made with nitrate of silver, in desirable places, to wit: on each side of the face. And it is well known that bull-terriers should be white; where this color is not as wished for, it is made artificially by the application of pipe clay. Sometimes enough of this has been rubbed into the hair to cause quite a cloud to ascend, when the dog has jumped up affectionately to his master in the ring, and Mr. Owner has been requested to retire, and has done so not at all in a dignified style. In the preparation of dogs for exhibition, it is necessary to feed them well, upon natural food, plenty of pure water and exercise. An occasional bath in cold water, and when dry, a meager application of oil, three or four drops well rubbed into the hair, is enough for the purpose. When he is tied up upon the bench, it is most important not to tie, in such a way that he may get off, as in this way valuable dogs have hung themselves, not purposely—dogs are not inclined to suicide.

Peculiar Canine Characteristics.

Dogs are of an intensely nervous temperament, and if one is much with them he will see how difficult it is for this animal to control his temper when once aroused. As an instance of this: "There are several cases on record where the usual attendant upon the sporting kennels in England has had occasion to visit the hounds at night, in the dark, dressed in his night apparel, and they not at first recognizing their friend have attacked and actually torn him to pieces." I am perfectly certain that nothing tends to produce disease in this noble creature so much as want of exercise, being continually chained up, and I am inclined to think that rabies may be the result *per se*, and that some diseases may originate spontaneously and then become contagious. He has when adult 42 teeth, 20 in the upper jaw and 22 in lower. All become permanent at six and a half months. It is a good plan to allow puppies to have large bones to play with. It assists the removal of the milk teeth and helps dentition. Bones are easily dissolved in the stomach of the dog, due to strength of the gastric juice. Owners of stud dogs often allow too frequent sexual connection; once a fortnight is compatible with vigor and health. In applying external remedies, it is requisite to remember that the dog will lick off the dressing, and if poisonous the result may be fatal. Sometimes through dirt he may harbor lice. There are few things better for this than a thorough rubbing in of some vegetable oil, such as sweet oil, taking care that he does not catch cold, and thoroughly washing next day with warm water and a little potash. Bitches carry their young, on an average, 62 days. During this period good food is a mixture of oatmeal porridge and scraps of meat; in fact this is a good general meal for all kinds of dogs, varying the quantity of meat in accordance with the amount of work or exercise.

ROBERT J. DAWSON,
Veterinary Surgeon.
225 Geary St., S. F.

HORTICULTURE.

State Horticultural Society.

The last regular meeting was held in this city May 27th, President Hilgard in the chair. B. M. Lelong, secretary of the State Board of Horticulture, was elected a regular member. H. W. Rice, of Haywards, and I. Allegretti, of West Berkeley, were proposed for membership.

Mr. Coates, of Napa, exhibited the "Common Sense" fruit-drier and evaporator, and at some length explained its merits.

A report was read by B. M. Lelong regarding the fruit prospects of the present season. [It was published in last week's RURAL.]

Cold Storage.

Mr. Lelong read a letter from the Interocean Cold Storage Co. at Riverside, which reported having on hand 12,000 boxes of citrus fruits, oranges, lemons, limes, etc., which are in fine condition and looked as if they may be kept indefinitely.

There were shown samples of fruits and vegetables that were bought at a Market-street fruit-stand on the 14th inst. and submitted to the Allegretti cold-storage process. They consisted of strawberries and cherries, asparagus, tomatoes and cucumbers, and were in a fair state of preservation.

Mr. Allegretti, who was present, stated that the fruit was not in good condition when bought at the fruit-stand, and it was put in a refrigerator not specially made for fruit. Considering these facts, the result was very satisfactory. Mr. Allegretti now has his process improved and available for fruit at small cost to the grower. He disclaimed any feeling of jealousy toward rival cold-storage processes, for he thought the State capable of producing fruit in sufficient quantities to keep 20 or 30 processes in full blast. Mr. Allegretti has just put up a cold-storage house for S. F. Leib, of San Jose.

Pear and Apple Blight.

W. G. Klee, State Inspector of Fruit Pests, opened the discussion of the afternoon, which was on the pear and apple-scab blight. True blights, he said, are due to diseases. In many cases the blighting of fruit blossoms is due to changes of temperature. The true blights can all be traced to germs. Some of these germs have of late years become firmly established in California. One of these is the pear and apple-scab blight. A moist atmosphere is conducive to the rapid spread of this fungus, and a dry one is unfavorable. It may take a year or two or even more to cleanse your trees thoroughly from the germs which produce this most destructive disease. The spores may lodge beneath the bark and in the axils of the leaves and twigs to remain for several seasons. The peculiar climate of the coast of California, especially that of those sections within the more direct influence of the fogs of the ocean, offers specially favorable conditions for the development of injurious fungi, popularly known as rusts, mildews and blights, which, as cultivation extends, seem to increase and cause serious loss if not total destruction of our crops.

The effect of *Fusicladium* (as this fungus is called) on the fruit and foliage demonstrates its identity on both the pear and the apple. Ten years ago nothing was heard of this trouble. Winter Nelis bore and matured in many places on the coast where they are now being abandoned as a failure. About five years ago I noticed at the experimental orchard of the University the leaves of two trees in the extreme southwest corner of the orchard during the month of May becoming smoky looking, revealing under the magnifying glass a smut-like fungus. The trees produced but little fruit, and most of this was badly affected with the same smut.

Effect of Hot Weather on the Fungus.

The warm weather dissipated nearly all the signs of the fungus and it was not until next season that I discovered it again on the foliage of the same trees, as well as on six or eight adjoining pear trees, attacking the latter in precisely the same manner as it had the very first variety, affecting foliage and fruit as well. Next season again I was astonished to find, after a few days' absence, that the same blight had made its appearance in all parts of the orchard, affecting some varieties very severely, others less, and some not at all. It was the same year that the blight of the Winter Nelis was so general, as most people remember. The same year, according to J. McLaren, of San Mateo, was the first year the disease was noticed in San Mateo county, and the same year also in the Santa Cruz mountains that the so-called apple-tree blight proved very severe. In fact, from every quarter within the region of the fog belt complaints of this blight were heard of. This season I determined, if possi-

ble, to reach some definite conclusion in regard to the nature of the blight as reported from various quarters, and from a thorough comparison I am satisfied that the *Fusicladium dentriticum* is the cause of all the trouble.

Places in which Spores Are Protected.

In the case of the white winter pearmain, we have in the cracked bark peculiar to this variety abundant protecting-places for the resting spores, which carry the disease over from year to year. Most probably the spores, seating themselves under the scaly bark, are protected from such changes of atmosphere as are brought with the dry north wind, that destroyer to all forms of fungi. On the smooth branches of other varieties, comparatively little opportunity for the lodgment of resting spores is presented, and the time of blooming has passed before any great number of spores have developed, so the harm that is done does not show itself until the young fruit has advanced a little, while, on the other hand, varieties seriously affected have sufficient spores present to destroy the bloom.

The most successful remedy is the sulphide of soda, with whale-oil soap, prepared as follows: Dissolve 30 pounds of whale-oil soap (80 per cent soap, at the most costing 5 cents per pound) in 60 gallons of water, by heating the two together thoroughly. Boil three pounds of lye (American concentrated lye is what we have used) with six pounds of sulphur and a couple of gallons of water. When thoroughly dissolved it is a dark-brown liquid (chemically sulphide of soda). Mix the two—the soap and the sulphide of soda—well, and allow them to boil about half an hour, then add about 90 gallons of water to the mixture and it is ready for use. This was applied warm, at a temperature of 130° F., in the barrel from which it was sprayed. The remedy this time proved a decided success, and with the exception, the variety first attacked years ago, only such fruit as had not been covered with the solution was affected in the least. Such varieties as for years, and even last year, a favorable season, had suffered so severely that they were almost cracked to pieces, were perfectly smooth.

After Mr. Klee's address there was a general discussion on blights, in which nearly all present took part. The discussion wasin great part made up of reminiscences of the occurrence of pear blight at the East. Dr. Kimball, of Haywards, said that he had seen one case of the true Eastern "fire blight" in his neighborhood, but the tree was dug out and it had not appeared since. All other speakers thought they had never seen this form of blight in this State.

Professor Hilgard referred to a report from a French horticulturist, who suggests a mixture of copper sulphate (bluestone) and lime as a remedy for the pear blight on the leaves, but he thought this prescription less available than the wash recommended by Mr. Klee, and which had been so successful in the University orchard. Mr. Bogue, of Martinez, said he had seen the pear blight (*fusicladium*) at Santa Cruz three years ago, and had followed its spread in the other coast regions. He thought, as Mr. Klee said, its area would be confined to the moist coast valleys.

Did the Diabratica Do It?

Secretary Wickson read the following letter:

To the Horticultural Society: With but few exceptions the pear crop at Point of Timber (Byron) is a failure, and we are at a loss to account for it. It is not confined to any variety, but all have suffered alike. Such a failure has never been known here before. The season has been apparently all that could be desired, but the trees fairly swarmed with the striped budbeetle (*Diabrotica vittata*), and we incline to the belief that they caused the failure. They began upon the buds, and kept it up till the blooms were off, and then the pears began to drop. The pear did not grow a particle from the time of the bloom. The bugs would eat the white leaf of the blossoms, and often, but not always, into the calyx. They served the quince the same way, but with no fatal result, as the quince kept growing right along. They swarmed over the almond trees, and there are no almonds. My apple trees bloomed while they were finishing up on the pears, but a swarm of bees took possession of them and the bugs had to leave—the apples set full. The Winter Nelis has never failed here before as this year. I have 1000 Winter Nelis going into the seventh year, and will have some one-half dozen pears to the tree. I have several Bartletts adjoining that have set full. The bugs patronized them somewhat, but seemed to prefer the Nelis. Other Bartletts in the neighborhood are badly used up. All my apricots are gone except one tree, which is full.

The burden of our desire is to know to what extent these beetles are responsible for this failure. I tried the wash recommended (sulphur and whale-oil soap) to drive them off, with no success, on several trees. I immersed a branch, bugs and all, into a bucket of the mixture made strong, but next day that branch had its share all the same. I have made considerable inquiry among fruit men, and they generally held that the beetles did no harm, yet we doubt if they have had them in such numbers. We are very anxious to have some information on this subject, as we believe they have come to stay, and will be with us again next spring. How would it do to spray the trees when they appear next spring with the London purple, as recommended for codlin moth? Would it not kill every bug that took a bite? Would it injure the buds or blossoms? Any consideration you can give this subject for us will be truly appreciated.—G. W. T. CARTER, *Byron, Cal.*

No one present had been afflicted as Mr. Carter described. The opinion was that a spray of Paris green would probably kill the intruders. Mr. Hatch said that he had become quite confident about reducing all leaf-eating pests since he had begun the use of Paris green. He uses one pound to 200 gallons of water and kills all sawfly caterpillars, pear slugs, etc.

Gas Treatment for Scales.

By request, F. W. Morse, of the State University, gave an interesting account of his experience with gases for the reduction of scale insects. As an outline will soon appear in a University bulletin, we will not attempt to report Mr. Morse's address.

Other Matters.

The coming meeting of the American Pomological Society at Boston was mentioned. As it was requested that essays on fruit-growing in the different States be furnished by the State Horticultural Societies, Dr. John Strentzel, of Martinez, was, upon motion, requested to make such a contribution from California.

The subject for discussion at the June meeting will be the apricot in all its bearings. Upon motion, Mr. G. M. Gray, of Chico, was requested to communicate his observations on the diseases of the apricot. The society then adjourned.

Dr. Gally on Horticultural Association.

EDITORS PRESS:—I was never attendant at a fruit-growers' association, nor a horticultural society; but I have read about them and their proceedings in the RURAL PRESS. Very good reading it is, too; almost as good and quite as interesting as would be the report of a Methodist class-meeting, or love-feast. I only miss in the apple-sass class-meeting the associations of the sisters in the other class-meeting. I should like to attend an apple sass class-meeting. I do not want to make one of those long speeches, to which, as reported, the brethren are so addicted, but I would hope to help say "amen."

No, I was never there; but, for the last 12 years, I have associated with a congregation of fruit trees in California. That is a horticultural association which I have attended daily, and, there, I have warmed with the poetry of the opening blossom, have dreamed in the silence with the budding leaf and shouted at the eloquence of the abundant yield. We have had some very interesting meetings, but we never have been able to predict from the season of abundant apricot promise that there would also be an abundant yield of apples, plums, cherries, pears and strawberries (without irrigation). In fact, it is quite the contrary, for while the apricot belongs to the plum, or prune, family, it is the hot sun, dry weather plum. Its very name shows that. And its great abundance indicates that the season is not to be favorable for some other fruits. This is a pointer—don't give it away. It will not stand much water; it likes a little water and a steady, dry, but not too hot season. Ah! exclaim the newspaper reporters, look how the other trees blossom; and as to that let me say: Now, look here, you pencil-pushing fellows, before you predict in type a large yield from a great bloomage, hadn't you better explain how a bride can wear silks and diamonds on her wedding day and never have a baby—if she lives a hundred years. This blooming business is mighty deceptive—don't you bet on it.

Watsonville, Cal. J. W. GALLY.

[This communication should have been in the PRESS of last week, but was unavoidably left out.—EDS. PRESS]

Gossip About Prunes.

The *Morning Call* of June 31 has the following gossip on the prune industry of 1887:

There is a diversity of opinion among experts with regard to the yield of the prune orchards in the State this year. The most hopeful put it at a half crop, while others say not more than a third, and even as low as a quarter. Local influences, of course, have much to do with the varying reports that come from different sections. Referring to a New York dispatch about the prospect of a poor output from California prune orchards, and the statement contained in the dispatch that a syndicate had been formed here for the purchase and control of the season's yield, George W. Meade & Co., a leading house on Drumm street, said yesterday to a *Call* representative that there is no syndicate—four or five parties are buying, but they are not working together. This firm anticipates a half crop. There will be prunes enough for a healthy condition of the market. They said that reports differ with regard to the same localities. For instance, an extensive drier in Sacramento says there will be a good crop, while two weeks ago another Sacramento party said it would be short.

Mr. Justi, of the Pacific Fruit Co., Washington street, said, on being interviewed: "There is no syndicate, but three or four of the large dealers who have driers of their own, and plenty of money, are going around and buying up the crop at two cents a pound, green." Three pounds of green prunes are required to make one pound of dried. This puts the dried fruit at six cents, without counting the expense for labor and packing, which would be a half cent more on the pound of green fruit. Mr. Justi thinks that extra fine prunes this year will bring 12 cents to a bit, dried. In ordinary years they run from five cents up, according to the grade. All the prunes will be what are called "fancy," or very good, this year, for the reason that the large proportion that dropped from the trees before maturing gave the others a better chance to develop, so that while the crop will not be large the quality will, for the reason stated, be good. This year he has sold the old crop at prices varying from five to ten cents, and one or two fancy lots brought 12 cents.

ASSOCIATION OF NURSERYMEN, FLORISTS AND SEEDSMEN.—The twelfth annual meeting of this association will be held in the Exposition Building in Chicago, Ill., commencing Wednesday, June 15, 1887, and continuing three days. The association is the largest body of horticulturists in the country. The objects sought commend themselves to all engaged in any of the departments of the nursery trade. The discussion of questions directly concerning the welfare of the trade, new methods of propagating, new labor-saving devices, making of personal acquaintance of others in the trade, exchange and sale of surplus stock, exhibition of new trees, fruits and plants, are among the many reasons why every person interested in horticultural pursuits should be present at this meeting.

The Pumpkin Bug.

EDITORS PRESS:—I would like to know through the columns of your valuable paper a remedy to destroy the big black pumpkin bug. I would like to know soon. My vines grow luxuriantly, but the bugs are making sad havoc with them.—J. S., *Fresno.*

Powdering over the bugs and leaves with air-slaked lime is the usual remedy.

A Small Leak

Will sink a great ship; and what at first appears to be a trifling cough is apt to culminate in consumption, if not properly attended to in time. For consumption, which is scrofula of the lungs, and for all blood and skin diseases, Dr Pierce's "Golden Medical Discovery" has no equal. By druggists.

Our Progress.

As stages are quickly abandoned with the completion of railroads, so the huge drastic, cathartic pills, composed of crude and bulky medicines, are quickly abandoned with the introduction of Dr. Pierce's "Pleasant Purgative Pellets," which are sugar-coated, and little larger than mustard seeds, but composed of highly concentrated vegetable extracts. By druggists.

Young and middle-aged men, suffering from nervous debility and kindred affections, as loss of memory, hypochondria, should inclose 10 cents in stamps for large illustrated pamphlet suggesting sure cure. Address, World's Dispensary Medical Association, Buffalo, N. Y.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
GEO. MCDOWELL—Ventura and Santa Barbara Cos.
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Consumption Cured.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French, or English, with full directions for preparing and using. Sent by mail by addressing with samp, naming this paper, W. A. NOYES, 149 Powers' Block, Rochester, N. Y.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

First-Class Mowing Machine for Sale.

A brand-new mower of well-known make can be obtained cheap for cash by addressing D. F., Box 2361, San Francisco, Cal.

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Taught thoroughly by mail. Terms reasonable. Send for circulars. Miss Barrett, 240 Montgomery St., S. F.

A SINGLE trial of the Le Roi des Savon will establish its superiority over all soaps and soap compounds.

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A CHILD CAN USE IT.

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MAIL ORDERS. "Smoke Ball" and "Debellator" packages sent by mail, with full directions, on receipt of price, $5.00 (Smoke Ball, $3.00; Debellator, $2.00), two 2-cent stamps. Remit by Postal Note, Wells, Fargo & Co., or Postoffice Money Order, Registered Letter, or in coin by express.

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Paper, $1. Boards, $1.25. 115 Songs. Full Piano accompaniment. Sing them in "The Bright Rosy Morning," the "Stilly Night," "On the Ocean Wave," or by the "Ingle Side." Not a poor song in the book.

The best of piano music is found in the new PIANO CLASSICS, or of easier grades in YOUNG PEOPLE'S CLASSICS, each $1 First-class Songs will be seen in SONG CLASSICS, $1, and in SONG CLASSICS FOR LOW VOICES, $1.

Gems of Strauss $2., and also **Gems of the Dance**, $2, contain a large quantity of the most brilliant music extant.

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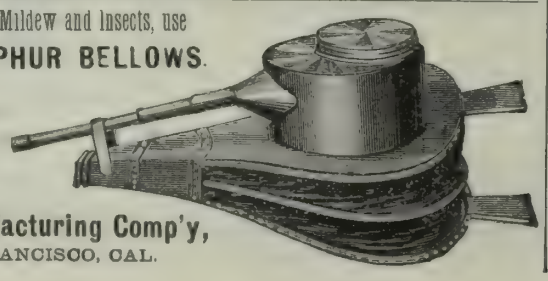
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A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. 20,000 acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

20-ACRE TRACTS.

Fine, rolling, cleared, reddish-brown land, under cultivation in the Shasta Fruit and Raisin Colony. Twenty acres for $500. Terms: $200 cash, and balance in installments to suit purchaser, at 8 per cent per annum. Any tract will be set in raisins or fruit and brought to bearing by proprietor of colony, if desired. Send stamp for circular, and state how you wish the installments. GRIFFIN BROS., Cottonwood, Shasta Co., Cal.

THE VINEYARD.

Abnormal Deposits on Vine Leaves.

University Experiment Station, Bulletin No. 70

On May 14th a few leaves from a Muscat vine were received from E. H. Loveland, foreman of the Butler vineyard at Fresno. Mr. Loveland's attention had been attracted by what seemed to be a growth of fungus on the leaves and on one side of the trunk of the vine. He wrote that he had noticed the same thing before, but never in such amount as this season.

A preliminary examination of the specimens showed that the leaves, though appearing quite healthy in color, were thickly covered on both sides with a whitish substance occurring in irregular masses, and which at first glance might give some suspicion of a fungoid growth. Examined with a hand-magnifier, however, the material was seen to be of dense character and prone to lift from the surface of the leaf in scale-like particles—in fact, in some places, especially where it had extended over the ribs of the leaf, it had divided and partly lifted itself from the surface as though it had become shrunken and distorted by drying. No features of fungoid growth were discernible. Upon careful exploration with a three-fourth inch objective the marks shown by the hand-magnifier were made more plain, and the whitish masses gave indications of a crystalline structure, manifesting itself in two main forms. The thinner portions were chiefly made up of flattish crystallizations of arborescent form, spreading out upon the surface of the leaf, and the thicker parts were dense white masses covered thickly with acicular crystals. The whole appearance of the material was that of an incrustation held in place by adhesion and by interweaving of the leaf hairs through it, the latter fact indicating that it had come upon the leaf in a fluid state and had thus taken close hold upon the inequalities of the leaf surface. This being the character of the deposit as determined by the microscope, and as no traces of fungoid origin could be discerned, it was evident that the composition of the material, as determined by chemical examination, would be most apt to disclose its source.

The small amount of material which could be scraped from the leaves, somewhat less than one grain, rendered it impossible to come to perfectly definite conclusions regarding its exact nature.

The original material contained:

44.3 per cent insoluble in water.
55.7 " " soluble " "

Of the soluble part:

69.8 per cent was organic matter and water.
7.2 " " " soluble ash.
23.0 " " " insoluble.

The part insoluble in water contained:

81.1 per cent of organic matter and loss.
18.8 " " " ash.

The part of the original material insoluble in water consists mostly of lime, with a small amount of magnesia and sulphuric acid. A slight residue resembling mica (probably from the dust of the soil) remains after the treatment with acid. Sulphur is present in sufficient quantities to be easily detected when ignited—doubtless from the sulphuring of the vines.

The soluble part of the original material was slightly acid. On ignition it blackens, and emits a slight odor of burnt sugar. The presence of a little sugar is also shown by the copper test. The soluble part of its ash is strongly alkaline and consists largely of carbonate of potash with some sulphuric acid.

The insoluble part of its ash consists chiefly of lime with a small amount of magnesia.

The general result of this examination would seem to be that the white substance is a saline incrustation of organic salts of potash and lime. Such a deposit might result from the evaporation of vine sap itself, but its deficiency in gum and sugar and apparent absence of tartaric acid (judging from the crystalline form of the incrustation) renders this supposition unlikely.

Other Specimens.—Another specimen sent by J. S. Dore, of Borden, Fresno county, had all the characteristic marks of the specimen from the Butler vineyard, except that the material was less abundant. A specimen from Hiram Hamilton, of Orange, Los Angeles county, differs in some respects from the Fresno samples. The deposit is much thinner and looks as though drops of thin whitewash had fallen upon the leaf and spread out upon it. It is most abundant upon or near the outer edges of the leaves. Examined with the microscope, the deposit does not show the needle-shaped crystals as in the former cases, but has instead somewhat irregular, roundish masses, sometimes contiguous, sometimes separated enough to show the green color of the leaf surface beneath them. There is, however, no indication of fungoid form or growth, but rather of granular formation, presumably an incrustation. The material was not abundant enough to admit of chemical examination.

A specimen received from G. F. Merriam, of Escondido, San Diego county, resembles closely the one from Orange, Los Angeles county. Mr. Merriam writes: "You will notice along the edges of the leaves something white—as if lime-water had been thrown upon them." In this sample the thicker line of incrustation along what seems to be the part where most of the liquid would collect by gravitation is a noticeable feature.

Further Investigation Needed.—We make this preliminary statement concerning the nature of these abnormal deposits upon vine leaves, because of the interest which has been awakened in them in the localities where they have occurred, and to allay fears which seem to prevail that the peculiar appearances are due to the presence of "downy mildew" (*peronospora viticola*)—a disease of the vine which is properly dreaded. The wide announcement which has been made of the evil occasioned by this fungoid parasite, naturally renders vine-growers alert to detect signs of its encroachment. It may be stated that the "downy mildew" exhibits its presence by marks wholly dissimilar to the characteristics of the incrustation which we have described above. It forms "conspicuous white patches" of a fuzzy or downy character, as its common name indicates. These patches may be very small, but their soft, woolly nature is easily detected. As the disease progresses the patches become yellowish, then brownish, and finally the portion of the leaf affected exhibits all the marks of dead tissue. Sometimes the leaf is almost wholly covered and shrivels and dies. Microscopic examination shows that the fungus has penetrated the leaf substance and destroyed it.

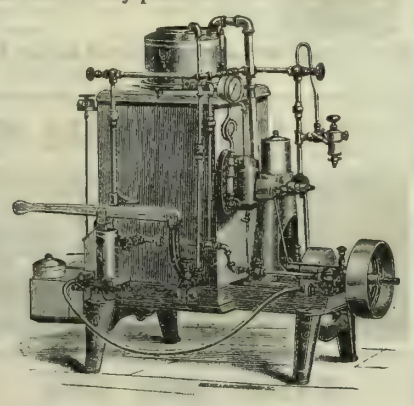
In the case of the incrustation noted above, the material is wholly upon the outer surface of the leaf, merely resting upon it and easily separated from it. Careful examination of the epidermis from which the material has been removed does not show any invasion of the tissue. Nor does it appear from the samples received that the deposit, whatever may be its origin, does any injury to the leaf or its functions. Upon this point we desire more information from those who have observed the occurrence and traced its effects.

We desire more liberal supplies of the material to pursue investigations which we trust may disclose the origin of the peculiar phenomenon. We would also be pleased to have all vine-growers whose attention may be attracted by this announcement, examine their vines and send us specimens of anything which may seem to them to be of the character described. In many cases serious apprehensions may be allayed by determination of the real nature of what may seem to be threatening phenomena, and even when the matter is serious it is well to be advised of it as early as possible. The University Experiment Station is equipped for such work and its facilities are always at the service of the vine-growers and of agriculturists generally.

Berkeley, June 4, 1887. E. W. HILGARD.

The Shipman Automatic Engine.

The advantages of a cheap motor, easily available for all kinds of light work, can hardly be exaggerated. It is an age of machines, not only for great factories, but for the small arts of manufacturing and for doing away with much of the drudgery of every-day life. The Shipman engine, which is shown in the engraving on this page, has been widely introduced to meet the demand for a small motor, and so far as we have heard has given full satisfaction in work to which it is adapted. It is in small compass and yet capable of standing high pressure and doing effective work. It runs with kerosene or fuel oil, consequently is cleanly and the fuel is easily provided. It is automatic and



The Shipman Engine.

safe, and does not require the work or watchfulness of an engineer. It can be started in the morning and it will run all day without the least attention. The various parts are well designed and well made. It is portable and can be carried by two persons to any desired point. The engraving shows the latest improved form, and will give the reader a general idea of its appearance. It can be seen in operation in the Post-street end of the well-appointed store of Osborn & Alexander of this city, who are the agents for the Pacific Coast.

The uses to which the Shipman engine can be put are beyond enumeration. For running printing presses, it is widely employed. For grinding apples for cider, sawing wood, cutting sorghum, grinding and shelling corn, pumping water, propelling yachts and steam launches, and for nearly all imaginable uses, it has already made a good record. We design in this notice merely to call attention to the Shipman—its value for other purposes will suggest itself to those who desire to gain a cheap substitute for muscle of man or animal, or to supersede the variable agency of wind. The price places it within reach of all. Full information concerning the machines can be had by addressing Osborn & Alexander, 628 Market street, S. F.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. June 2-8.	Portland. Rain.	Temp.	Wind.	Weather.	Red Bluff. Rain.	Temp.	Wind.	Weather.	Sacramento. Rain.	Temp.	Wind	Weather.	S. Francisco. Rain.	Temp.	Wind.	Weather.	Los Angeles. Rain.	Temp.	Wind.	Weather.	San Diego. Rain.	Temp.	Wind	Weather.
Thursday	.00	64	NW	Fr.	.00	84	N	Fr.	.00	80	NW	Cl.	.00	62	SW	Cl.	.00	68	W	Cy.	.04	66	NW	Cy.
Friday	.00	58	N	Fr.	.00	82	N	Cy.	.00	72	SW	Cy	.00	58	SW	Cy.	.00	68	W	Cy.	.00	66	NW	Fr.
Saturday	.*T	56	N	Cy	.00	68	S	Fr.	.00	64	S	Cl.	.00	58	W	Cl.	.04	68	SW	Fr.	.00	66	W	Cy.
Sunday	.00	56	S	Cy	.01	60	S	Cy.	.00	60	SW	Cl.	.*T	57	NW	Cl.	.00	72	W	Cl.	.00	64	NW	Cl.
Monday	.02	62	S	Cy.	.00	64	NW	Cl.	.00	61	W	Cl.	.00	61	W	Cl	.00	76	SW	Cl.	.00	64	W	Cl.
Tuesday	.12	56	S	Cy.	.00	74	S	Cl.	.00	72	S	Fr.	.00	60	W	Fr.	.00	78	W	Cl.	.00	68	SW	Cl.
Wednesday	.36	64	NW	Cl	.00	—	SW	Fr.	.00	72	SW	Cl.	.00	59	N	Cl	.00	78	W	Cl.	.00	70	SW	Cl.
Total	.50				03				.00				.*T				.04				.04			

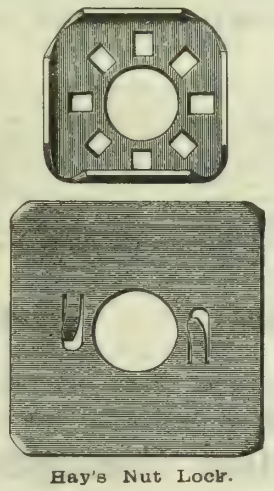
EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours. Note "T indicates precipitation inappreciable.

Hay's Nut Lock.

Loose nuts on vehicles, machines, and in fact anything where nuts are used, are a constant source of annoyance; but on thrashing, harvesting and other farm machinery they are worse than elsewhere. This kind of mechanism is subject to all sorts of movements, and nuts are apt to get loose and cause delay and damage.

We give an illustration on this page of a new form of nut lock invented by John Hay, of Elmira, Solano county, who is at present at 426 Kearny street, San Francisco. This nut lock was specially devised to meet the requirements of thrashing machinery.

As will be seen from the cut, it is very simple in construction, but effective. Then the pawl-plate is set down over the bolt. Then the



Hay's Nut Lock.

nut is dropped into the slotted flange washer and screwed down. The corner points of the plate sink slightly into the wood, allowing the plate to bend a little, forming a spring that allows for shrinkage of the timber.

In unlocking, the corners of the plate are raised slightly and the point of a nail or any handy thing placed under the corner, and the whole thing is then turned back. The little pawls in the pawl-plate fit in the slots of the flange in which the nut sets. If there is a strong pressure, the pawls go in between the slots in the plate and the nut cannot get loose. The nut is securely locked and cannot jar back or turn in any way unless a wrench is used.

Nut locks of this make have been used by the C. P. R. R. Co. for five or six months past, and no wrench has been used upon them since. The Shippee harvesters are now supplied with these nut locks, which have been found very efficient. Different sizes are made for different bolts. The simplicity and effectiveness of the device is readily recognized by all who examine it. These nut locks may be seen at Truman, Isham & Hooker's, or Henry Bull's, in this city.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING MAY 31, 1887.

363,941.—CANNING—D. E. Ashby, S. F.
364,085.—RUCHING FOR DECORATIVE PURPOSES—E. A. Bohm, S. F.
364,158.—DREDGER—A. B. Bowers, S. F.
363,984.—TRANSOM—J. C. Brown, S. F.
363,991.—CART—H. J. Diggles, Fort Jones, Cal.
363,955.—CARTRIDGE CRIMPER—J. A. Haas, Port Costa, Cal.
364,023.—WHIP—E. B. Knapp, San Jacinto, Cal.
363,963.—WHEEL FOR PLOWS—H. T. Owens, Grafton, Cal.
363,966.—TRACTION ENGINE—Jacob Price, San Leandro, Cal.
363,854.—SAW SETTER—A. Schnoor, Oakland, Cal.
363,916.—LAMP SHADE SUPPORT—Sink & Pollock, Redwood City, Cal.
363,972.—ADDING MACHINE—Smith & Shattuck, S. F.
364,062.—CRUDE PETROLEUM BURNER—Thomas, Douglas, Smith & Twing, Oakland, Cal.
363,862.—NECKTIE—H. Tintrop, S. F.
363,866.—NAIL PLATE AND CUT NAIL—Geo. T. Walker, Napa, Cal.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

WINTER'S ISLAND.—On another page is an interesting description of Walker's dairy on Winter's island. The property is a portion of the island which Wm. Winter, of this city, has advertised in the RURAL for sale or to lease. It would seem that Mr. Walker's experience on the property would commend it.

Thoroughbreds by Auction.

Elsewhere will be found an advertisement giving particulars of a large auction sale of thoroughbred live-stock to take place in a short time, Killip & Co. being the auctioneers.



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GEO. BEMENT & SON, Redwood City. Ayrshire Cattle, Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

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—FROM—

Ontare Ranch,

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AT 1 P. M. ON

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—AT—

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On the above date, by direction of C. F. Swan, Esq., Manager of Mr. F. T. Underhill's Ontare Ranch, Santa Barbara county, we will sell his famous herd of Thoroughbred Holstein-Friesian Cattle. It comprises fifty-seven head and includes the Premium Cattle exhibited at the California State Fair and the various District Fairs throughout the State.

Also, Three Standard-bred Trotting Stallions, 5 and 2-year olds, an Imported French Coaching Stallion, 5 years old, and a Clydesdale Stallion 3 years old.

☞The sale will be entirely without reserve, other disposition having been made of the ranch.

Catalogues will be ready June 1st.

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Comprising drafts from Breeding Farms of

THEODORE WINTERS,
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Soluble Phosphoric Acid	12.90 per cent
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Potash	2.23 "
Ammonia	1.87 "
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The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia**, therefore, total of Nitrogen calculated as **Ammonia**, 2.72 per cent.

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University of California, College of Agriculture.

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In ordinary soils the following quantities will be found sufficient: For Wheat, Barley, Corn and Oats, 300 to 350 pounds per acre. For Grass, Sugar Beets and Vegetables, 250 to 300 pounds per acre. For Vines, Fruit Trees, from ½ pound to 1 pound each. For Flower Gardens, Lawns, House Plants, etc., a light top dressing, applied at any time, will be found very beneficial.

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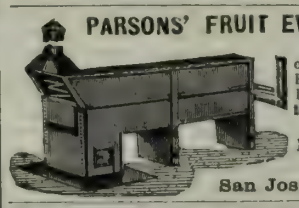
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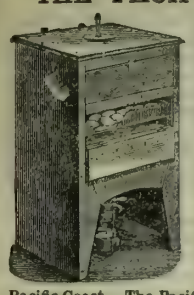
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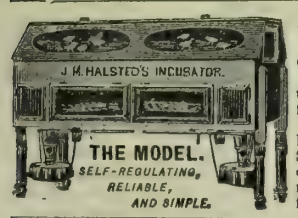
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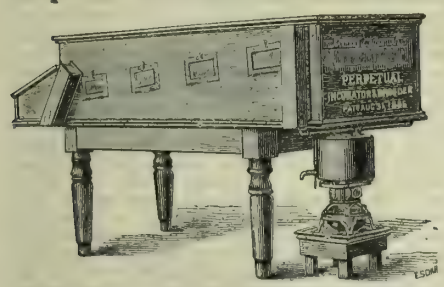
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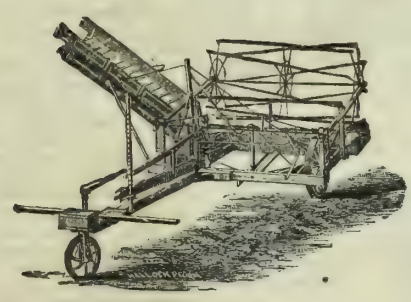
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NON-POISONOUS SHEEP DIP!
Mixes instantly with Cold Water.
LITTLE'S CHEMICAL FLUID.
Price, $1.25 per Imperial Gallon.



Sold in iron drums containing 5 imperial gallons, equal to nearly 6 American gallons. One gallon mixed with 60 gallons of cold water will dip thoroughly 180 sheep, at a cost of less than one cent each; easily applied; a nourisher of wool; a certain cure for scab.

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Poisonous!
Mixes instantly with water; prevents the fly from striking. In a 2-pound package there is sufficient to dip 20 sheep, and in a 7-pound package there is sufficient to dip 100 sheep Price, **17 cents** per pound.

CATTON, BELL & CO.,
(Successors to Falkner, Bell & Co.)
406 California St., S. F.

S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 8, 1887.

The weather the past week has been all that could be desired for the maturing crops of grains. Continued absence of hot winds since that reported last week is considered a great blessing by farmers, now that grain is so high. European advices give a fairly steady market with fine weather in England, which is greatly wanted. To-day's cable is as follows:

LONDON, June 8.—Cargoes off coast, firm; cargoes on passage and for shipment, firm; Cal. wheat off coast, 39s; Cal. wheat just shipped, 45s 6d; Cal. wheat nearly due, 39s 6d; French country market, stiff; Liverpool wheat, spot, quiet but steady; Liverpool wheat Cal. 7s 9d@8s; weather in England, very fine.

The British Grain Trade.

LONDON, June 6.—The *Mark Lane Express*, in its weekly review of the British grain trade during the past week, says: The copious rainfall of Thursday and Friday, and the genial weather following, have improved the outlook. The aggregate benefit is immense. Supplies of native wheat locally continue variable. Sales of English wheat during the week were 48,857 quarters at 35s, against 49,763 quarters at 32s ₱ quarter during the corresponding period of last year. Flour was steady. The consumptive demand decreased. Foreign wheat was without feature. The market showed a weaker tendency. Ten cargoes arrived off coast; eight were consumed and two remained on sale, one being an Oregon cargo for which 38s is asked. White wheats were almost entirely in the hands of the Liverpool clique. To-day wheat was slow and unchanged. Flour was steady. Maize was weaker. American mixed was scarce and firm. Barleys were slow and unchanged. Oats are dull. Linseed was dearer.

Crops at the East.

CHICAGO, June 5.—The following summary will appear in this week's *Farmers' Review*: Continued rains throughout many portions of the West since our last issue have wrought a general improvement in crop conditions, especially in spring crops, and in meadows and pastures. The harvest has already commenced in the Southern winter-wheat sections, and this crop is nearly past all danger. Our reports on the condition are as follows: Eighteen counties in Illinois report an average condition of 87 per cent, and ten counties report injury from drought and insects. Seventeen counties in Indiana report an average condition of 85 per cent, and five counties report injury by insects. Fifteen counties in Ohio report an average condition of 76 per cent and some damage by insects. Nine Michigan counties report an average condition of 89 per cent, with some injury from drought and none from insects. Seventeen Missouri counties give an average condition of 96 per cent, and ten counties in Kentucky report an average condition of 87 per cent. Kansas falls away behind, nine counties giving only an average condition of 58 per cent. Elk county reports the crop all plowed up. That of Lincoln is a total failure, and that of Phillips is very poor. There is a very general complaint of insects doing injury. Four Iowa counties report an average condition of 97 per cent, and ten counties in Wisconsin give an average condition of 76 per cent. The condition of spring wheat is reported as follows: Nine counties in this State place the condition at 90 per cent, with some complaint of injury by drought and insects. In eight counties in Minnesota the condition is 88 per cent, in 11 counties in Dakota it is 99 per cent, in 12 in Nebraska it is 87 per cent, and in 14 in Iowa it is 93 per cent. The corn States report an acreage and condition above the average, with few exceptions. Oats show an average acreage and condition. Meadows and pastures are as a rule reported short from lack of rain earlier in the season, but are now on the gain. Potatoes and fruit promise fair crops, as a rule.

Eastern Wheat Markets.

CHICAGO, June 4.—The actual situation in wheat this week just closed has not undergone any important change, the market to all appearances advancing and declining at the will of large holders, or the alleged combination. In to-day's market there was a willingness all around to take wheat moderately. The morning hours witnessed quite an active trading and June advanced from 90½@91⅛ cents, July moved up from 84¼@84½ cents, September from 83¼@83⅝ cents. The probable outcome of the big combination deal is never lost sight of and trading to-day, more than any day of the week, was regarded as indicating a faith in the belief that the clique proposes to name a higher price for the vast quantity they have bought.

CHICAGO, June 7.—On the afternoon board the market was nervous, and advanced on indications of the clique buying. June closed at 93, July at 86¾ @86⅞.

NEW YORK, June 5.—Wheat closed firm at near to best points, June, 97⅞c; July, 95⅞c; August, 93¼c; September, 93⅛c; October, 93⅛c; November, 94⅞c; December, 95⅞c; January, 96¾c.

NEW YORK, June 7.—The Produce Exchange reports the visible supply of grain on June 4th as follows: Wheat, 42 450,000 bushels; corn, 12,709,000 bushels; oats, 3 453,000 bushels; rye, 259,000 bushels; barley, 194,000 bushels.

CHICAGO, June 8—1 P. M.—Wheat lower, for cash, and futures about steady; cash, 92¾c; July, 86⅝c; August, 83⅝c. Corn steady; cash, 38⅛c; July, 39½c; August, 40⅜c. Oats steady; cash, 25½c; July 26½c; August, 26c.

Eastern Wool Markets.

NEW YORK, June 6.—There is only a reduced and broken assortment of fleeces on hand and of low-grade wools. The accumulation is not sufficient to cause any trouble, even in the face of hesitating and, for the time, light demand. Among sales were 20,000 lbs Eastern Oregon at 21c, 6000 lbs spring California at 22½c, 1000 lbs fall California at 15c.

The Philadelphia market ruled stronger last week and closed 1@2c higher for all bright quarter and medium unwashed wools. Supplies are light, and manufacturers who want wool for current consumption are obliged to pay an advance. Among the sales were 8000 lbs Territory fine medium at 25c; 10,000 lbs one-fourth Oregon at 28c; 6000 lbs one-fourth Territory at 23c; 18,000 lbs Montana medium at 24c; 20,000 lbs Territory medium at 21@22c.

In the Boston market the demand is running almost wholly on medium wools, and fine wools meet with but a limited outlet. The tone of the market, except on medium grades, is unsettled. Among the sales were 216,000 lbs Territory at 18@25c, and 45,000 lbs Eastern Oregon at 18c.

BOSTON, June 7.—Wool is in moderate demand. Michigan extra is quoted at 31c per lb. Other grades unchanged.

PHILADELPHIA, June 7.—Wool is firm. Low and medium wools are in good demand. Medium unwashed, combing and delaine, 30c@31c; coarse do, 30@31c. Other grades are unchanged.

NEW YORK, June 7.—Wool is quiet and steadily held.

London Wool Sales.

LONDON, June 7.—The third series of wool sales opened to-day. There was a large attendance of home and foreign buyers. The bidding was not brisk, though better than was expected; prices of Merinos ranging from the lowest of April figures to ½d lower. Crossbreds were abundant at nearly 1d decline from April's closing.

California Fruit in Chicago.

CHICAGO, June 4.—The supply of oranges is fair, but only choice fruit is in demand. Prices are steady. Bright Riverside, good to fancy, $3.25@4; San Bernardino, $3.25@4; Santa Ana, $2.90@3.25; St Michael, paper rind, $3@3.75; Orange, $2.50@2.75; Los Angeles, $2.50@2.75; Navel, according to quality, $3@4.50; San Gabriel, $2.50@3; blood oranges, fancy, $4@6; culls, $2. Lemons are selling moderately at $2.50 for California.

Cherries—Offerings rather smaller; demand also limited. California cherries continue plentiful. Boxes of 10 lbs Black Tartarians sold at $1.75@2, and white, $2@2.25. In poor order, sold as low as $1 ₱ box.

Dried fruits rule very firm and there is a fair demand in a small way. Peaches are inactive simply because there is no desirable stock here. The offerings consist of old and common fruit. The California dried fruit supply is small and the market is firm. Plums, pitted, ₱ lb, 11@12c; raisins, London layers, 20-lb boxes, ₱ box, $1.50@1.75; loose Muscatel, $1.25@1.35; California layers, $1.25@1.35.

California Fruits in New York.

NEW YORK, June 6.—Green Fruits—Selected California apricots 25 cents a dozen; handsome California black cherries, 50 cents per lb.

Canned Goods—The demand is moderately active. California pears, $2.75@3.25.

Dried Fruits—The market is without important change. California loose Muscatel two-crown raisins, $1.25@1.35; three-crown, $1.50@1.70 London, $1.50@1.75¼.

New York Hop Market.

NEW YORK, June 6.—The trade is moderate in volume and the demand rather quiet. Coast crop, 1886, best, 20@21 cents; same, common to good, 13@16 cents; 1885, good to prime, 7@10 cents.

Local Markets.

BAGS—A pool is trying to advance prices, but owing to many held by outsiders it appears at present to be a difficult task. Calcuttas are quoted at 6@6¼ cts.

BARLEY—The market is very strong for both futures and spot. On Call, transactions the past were large. As a matter of reference we give the following quotations of options on June 9, 1886, which can be compared with to-day's prices: Buyer 1886, 75c. Seller 1886, 76⅜c. To-day's sales on Call were as follows:

Morning Session—Buyer 1887—1700 tons, $1.22½; 100, $1.22½. Seller 1887, new crop—100 tons, $1.10¾ ₱ ctl.

Afternoon Session: Buyer 1887—700 tons, $1.22½; 500, $1.22⅜. Seller 1888, new crop—1400 tons, $1.10; 200, $1.10½ ₱ ctl.

BUTTER—Receipts continue free, with a firm tone reported for hard fresh rolls both for pickling and for home trade. Off grades of butter are hard to place.

CHEESE—The market has an unsettled tone, due chiefly to the narrowing of the outlet, owing to lower prices at the West. Supplies here appear to be increasing.

EGGS—Strictly choice fresh laid are strong at an advance, with the tendency still upward. Off qualities continue slow.

FLOUR—In sympathy with wheat, millers have advanced prices 25 cts per barrel. The demand is good, with stock light.

WHEAT—The sample market has ruled quiet, owing to light offerings. On Call, trading was active, with prices maintained up to Monday, when they shaded off. Many are inclined to the opinion that the corner in wheat has not benefited farmers, but by comparing the price of options a year ago and now they will discover their error—at prices ruling to-day on Call the syndicate will buy all offered. On June 9, 1886, sales were made at the following prices: Buyer season, $1.27½. Buyer '86, $1.24⅜. Seller '86, $1.17¼. To-day's sales are as follows:

Morning Session: Spot—100 tons, $1.87. Buyer 1887—800 tons, $1.96; 200, $1.96¾; 100, $1.96⅝; 100, $1.96½; 100, $1.97; 200, $1.96½. Seller 1887—2000 tons, $1.83⅞; 100, $1.83⅝; 5100, $1.83¾. July—200 tons, $1.85¼; 800, $1.86. July, new crop—200 tons, $1.85; 200, $1.85½. Buyer June—100 tons, $1.88½. August—100 tons, $1.84½. Buyer August and September—200 tons, $1.87¼; 200, $1.86¼ ₱ ctl.

Afternoon Session: Spot—100 tons, $1.85. Buyer 1887—100 tons, $1.96; 300, $1.96½; 100, $1.96¾; 100, $1.96⅝. Seller 1887—1700 tons, $1.83⅛; 2700, $1.83¾; 900, $1.84; 100, $1.84½. Buyer September—200 tons, $1.84¼; 100, $1.85. July—100 tons, $1.85⅝; 100, $1.85¾; 1200, $1.86¼; 1600, $1.86½. August—600 tons, $1.85. July, new—100 tons, $1.87¼; 200, $1.87¾; 100, $1.88 ₱ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

The wheat and flour export demand at New York continues active from all the importing countries of Europe. If consumption in Europe shall be normal, with the late harvest in prospect there, the wants for foreign wheat from May 1, to the end of this crop season, about August 15, may equal 100,000,000 bushels. The area of Europe's supply is limited to Russia, south and north, the Danube provinces, Austro-Hungary, Indian shipments via the Suez canal, La Plate and the United States Atlantic ports. Shipments from Australia by sail via cape, from India via cape, from Pacific Coast of America made after May 1 cannot be made available for consumption in Europe this side of September 1 next. Crop advices from the East are of a more favorable character, but it comes too late to insure an average yield to the acre. Harvesting in several of the Southern States has been finished, with only a fair yield reported.

The first sample of a large parcel of harvested wheat was received on June 4. There are 3000 tons and it was raised by J. R. Briggs, of Winters. The grade is fully up to No. 1 club.

The first barley of the new season was offered by sample on June 4. It was raised by Wm. Hauke, of Fremont, Solano county. It was sold at $1.15 per cental.

On this coast harvesting is well underway in parts of Eastern Oregon and Eastern Washington Territory. The yield to the acre is said to be above an average for wheat, with a full average for barley. In this State cutting of early sown wheat has been commenced, but will not be general until toward the close of the month. Advices received so far state that the outturn is generally disappointing. The heads are short and the grain only fairly plump in some sections, and pinched in others.

The local wheat market has been very active, with considerable excitement reported, owing to short sellers not being able to secure enough to meet their contracts. The manipulators took every ton of wheat offered, and still called for more. After this the market options eased off only to be pushed up again on the shorts. It is claimed that there is a large line of shorts out and that the manipulators will force them to settle at still higher prices. Heavy sales have been made on Call of seller '87 and seller season wheat by farmers, and as prices advanced they were forced to put up considerable money to keep their margins good.

Barley has ruled very steady throughout the week, with a strong tone to the market, owing to the crop being estimated at only about 325,000 tons, which, with the carryover, will barely meet the consumption. In June last year the market was weak and tending down; this year it is steady and tending up.

Oats are steady, with both receipts and demand light.

Eastern advices report an increased acreage in corn, with a strong market ruling for actual corn. In this State the acreage is said to be less than last year, with the crop outlook only fair. In our market corn rules very strong at quotations.

A London correspondent of *Bradstreet's* writes under date of May 12th, as follows: "Winter wheat is more backward than I have ever before seen it in the middle of May, though I learn from a very old farmer that the crop was in about the same condition in May, 1847, when cold, dry weather prevailed till the end of the third week in the month. After that the season was so favorable to the rapid development of vegetation that the harvest was early and abundant, too. That, however, was a very fortunate sequence to a cold spring, and we cannot count on its repetition. It is possible that sunshine and showers may bring the wheat crop up to its normal stage of development by the end of June, provided that it does not meet with any further check from frost or a return of east winds; but the chances are greatly against anything but a late harvest. At any rate, the wheats to-day are not more forward than they usually are by the beginning of March. They are healthy in appearance and fairly thick on the ground, except where they have been thinned by wire-worm. The dryness of the soil throughout the long period of cold weather, which lasted all through March and April, was a great safeguard to the crop, which can stand a great deal of east wind and frost in spring, when there is but little rain. But now that the land is wet, a return of wintry weather would be fatal to the prospects of wheat and other cereals also." Further on in his letter, the correspondent says: "It seems impossible that Europe can obtain the unusually large supplies requisite for consumption up to and through a late harvest at anything like current prices, Russia having no surplus to speak of, India less than usual, and America only a little more than was available at this period of last year. This view of the position is very generally accepted, and yet there is no speculation, except in brief spurts, as a reflex of marked excitement on your side of the Atlantic. Apparently nothing short of the actual pinch of scarcity will move the trade here out of the deep rut of depression in which it has lain so long."

The bears on Call, aided by several commission houses, are trying to arrange to bring wheat from other States so as to break prices here. This is against California farmers' interest. The higher wheat is here the better for farmers.

Feedstuff.

Both bran and middlings have made several advances, closing strong at full quotations. Stocks are light and demand good. Receipts are expected to continue light, owing to few mills running. Poor pasturage in several dairy districts and also lumbering districts, is said to have produced the increased consumption.

Hay is very strong, with a good demand ruling. The consumption is largely in excess of what it was in June last year. For a straight parcel of new wheat hay $12.50 was bid but refused.

Fruits.

Cherries under heavy receipts sold lower. Canners bought freely, taking all the choice blacks at from 3 cts to 5 cts ₱ lb, and Royal Ann at 5@7 cts.

It is claimed that canners have contracted for all the products of orchards they wish, and will in the future buy in the open market when commission merchants, to clean up, are compelled to sell low.

Gooseberries are steadier.

The second crop of strawberries is coming in, and sell well. Owing to the high prices so far this season, canners have not been able to put up any.

Currants weakened off under freer receipts, which allowed canners to clean up the market at $2.50@3 ₱ chest.

Apples received so far this season have been too green to sell to advantage.

Peaches are coming in fairly well, but as yet sell high. Heavier receipts are expected next week.

Apricots are making a better showing. Prices as yet are too high in the open market for canners.

Dried fruits continue scarce, with a fair demand ruling. Eastern imported currants are higher, but prunes are lower.

Raisins are strong, with the stock light. The East reports a firm market for choice.

All kinds of vegetables fluctuate daily in prices according to the receipts.

Heavy shipments of vegetables are being made to the East, particularly of potatoes.

Potatoes continue to rule low under free receipts and only a fair demand. The crop this year is said to be the largest on record, both in this State, Washington Territory and Oregon.

Onions are weak under freer receipts. Owing to their better keeping qualities more are taken for filling distant orders.

Peaches are barely ripe and sell slow; only ripe fetch over $1.25. Pears and apples are too green to sell.

Honey.

This week's *Herald of Trade* says: With last month the honey season of 1886-87 ended. The season opened with low prices, owing chiefly to the impression that the crop was the largest on record. By the end of June this belief was dispelled, and a slight improvement set in under an increased export demand from the East. The European demand was light, much less than for two years past. The lessened demand from Europe was due to that market being overstocked by the excessive shipments from the 1884 crop. The exports from California in calendar years were as follows:

	Pounds by Sea.	Pounds by Rail.
1880	1,097,606	861 050
1881	1,124,580	378,370
1882	433,440	527,680
1883	799,560	266,400
1884	1,728,600	2 352,000
1885	1,490,670	1,313,260
1886	867,480	2,676,910

The above reflects the increased trade with the East, and the large falling off in shipments to Europe. The Eastern States took more honey, owing to a light crop at the West and also East, and also to the low overland freights combined with low prices on this coast. The heavy shipments the past season cleaned up our market more closely than ever before known, and consequently the new season begins with comparatively no stock on hand. Not only is the new season entered with an almost exhausted stock, but prices are fully one-third higher than in June, 1886. All present indications do not justify us in estimating this year's crop at over 2,500,000 lbs against 5,000,000 lbs in 1886; 1,250,000 lbs in 1885 and 9,000,000 lbs in 1884. This large carryover from the season of 1884-85 into the season of 1885-86 caused the light crop of 1885 not to be felt. This season there is no carryover and a very small crop to draw from, with a large increased consumption to be met. The estimated small crop is founded on the unfavorable weather for flowering shrubs and plants and also during the best part of the honey-making season, to cool nights and windy days, which kept bees more confined.

Live-Stock.

Beef cattle are in lighter offering, but owing to the light consumption the market rules easy. There is a growing impression that values will probably begin to advance soon; already extra conditioned sell readily at over 8 cts against 7½@8c last week. Mutton sheep are steadier. Several shipments are being made to points east of the Rocky mountains. Hogs are fairly steady. The inquiry is light. Milch cows are moving slowly. In horses, several sales are reported of fair-sized draft horses at an average of $200 each. Small draft horses are slow at over $100. Carriage teams and roadsters are wanted.

The following are the wholesale rates of slaughterers to butchers:

BEEF—Extra, 8c; first grade, grass fed, 7@7½c per lb.; second grade, 6@6½c; third grade, 4½@5¼c.

MUTTON—Ewes, 6c; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8½c; small, 6@8c.

PORK—Live hogs, 4¾@5c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

The first crop of peas is going out, causing a stronger market.

String beans are coming in more freely, causing a gradual shading in prices.

Asparagus is scarce and higher.

Tomatoes continue to come in slowly. The crop this year is only a fair average. It is claimed that receipts will set in more freely by the end of next week.

Summer squash are making a better showing, with prices easing off.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	250,934	250,456
In port, disengaged	115,134	30,824
In port, engaged	20,167	27,869
Totals	386,235	309,149

The above gives a carrying capacity as follows: 1887, 616,067 short tons; 1886, 495,033 short tons; increase over last year, 121,034.

Wool is in better demand, particularly the medium and finer grades. This is due to an improvement at the East. Coarse grades move more slowly. Shipments to the East continue free.

Poultry has ruled steady throughout the week, with few changes reported. The demand is light and so are receipts.

Mustard seeds are very firm, owing to an advance at the East, and also a light crop in this State.

It is reported that the walnut crop of the State is pooled for higher prices.

Hops are stronger and improved demand at an advance. For choice new for future delivery, 20 cts is obtainable. Two weeks ago buyers had to be

looked up; now sellers are wanted. Bad crop prospects at the East cause the advance for future delivery.

San Francisco, June 8, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 8, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 75
Butter	1 75	@	2 25
Pea	1 80	@	2 15
Red	1 40	@	1 65
Pink	1 25	@	1 60
Large White	1 90	@	2 15
Small White	1 75	@	2 25
Lima	1 75	@	2 50
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY			
California	5½	@	6½
German	b½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb.	16	@	20
do Fancy br'nds	21	@	22
Pickle roll	20	@	24
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb.	9	@	10½
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz.	21	@	23
do, store	17½	@	20
Ducks	—	@	—
Oregon	—	@	—
Eastern	14½	@	15½
FEED			
Bran, ton	29 00	@	30 50
Cornmeal	27 50	@	29 00
Gr'd Barley ton	25 00	@	26 00
Hay	8 00	@	15 00
Middlings	31 50	@	33 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR.			
Extra, City Mills	4 95	@	5 70
do Co'ntry Mills	4 45	@	5 45
Superfine	3 70	@	4 45
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 17½
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 15	@	1 25
Yellow	1 10	@	1 20
Small Round	1 20	@	1 30
Nebraska	1 07½	@	1 15
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 25	@	1 50
Wheat milling.			
Gilt edged	1 90	@	2 00
do Choice	1 82½	@	1 87½
do fair to good	1 77½	@	1 80
Shipping choice	1 85	@	1 90
do good	1 80	@	—
do fair	1 75	@	—
HIDES.			
Dry	14	@	16
Wet salted	7½	@	8½
HONEY, ETC.			
Beeswax, lb.	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
do new	50	@	1 00
NUTS—JOBBING.			
Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	—	@	—
Early Rose	—	@	—
Cuffey Cove	—	@	—
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	—	@	—
Humboldt's	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	—	@	—
Peerless	—	@	—
Salt Lake	—	@	—
New Potatoes	50	@	1 10
POULTRY AND GAME			
Hens, doz	5 50	@	7 00
Roosters	5 50	@	11 00
Broilers	3 00	@	7 00
Ducks, tame	5 00	@	6 50
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 00	@	1 25
do Goslings	1 15	@	1 65
Wild Gray, doz	—	@	—
Turkeys, lb	17	@	20
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz.	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9½
Medium	9	@	10
Light	10	@	11
Extra Light	11	@	12½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	12½	@	14
do Eastern	14	@	14½
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	3	@	4
Hemp	4	@	4½
Italian Rye Grass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	2½	@	3
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	1	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	21	@	26
Sac'to valley	18	@	24
Free Mountain	21	@	26
N'hern defective	—	@	—
S Joaquin valley	13	@	19
do mountain	16	@	21
Cava'y & F'to'll	16	@	21
Oregon Eastern	18	@	25
do valley	20	@	27½
Southern Coast	11	@	18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 8, 1887

Apples, bx com	50	@	75
do choice	—	@	—
Apricots, bx	45	@	1 25
Bananas, bunch	2 00	@	3 25
Blackberries, ch.	—	@	—
Canteloupes, cr.	—	@	—
Cherries red bx	25	@	45
do black bx	30	@	50
do Royal Ann	40	@	75
Cherry plums	20	@	45
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants ch	2 50	@	3 00
Gooseberries lb	2	@	6
Figs lb	25	@	35
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	10 00	@	11 00
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 50
do Choice	2 00	@	2 50
do Navels	3 00	@	4 50
do Panama	—	@	—
Peaches, bx	1 00	@	1 75
do bask	—	@	—
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	—	@	—
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries dr	1 00	@	1 50
Strawberries ch	5 00	@	11 00
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	—	@	—
do evaporated	12½	@	13½
do quartered	13	@	14
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	13	@	13½
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	—	@	—
do pared	—	@	—
do evaporated	—	@	—
Pears, sliced	5	@	6
do grtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8	@	12½
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz.	—	@	—
Asparagus ₰ bx.	75	@	1 75
do cultivated	—	@	—
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	15	@	18
Pumpkins p'r ton	—	@	—
Squash, Marrow fat, ton	10 00	@	12 00
do Summer bx	50	@	1 50
String beans lb	2	@	4
Tomatoes box	1 00	@	1 75
Turnips ctl	25	@	30
Beets, sk	75	@	—
Cabbage, 100 lbs.	75	@	1 00
Carrots, sk	35	@	—
Cauliflower, doz.	—	@	—
Eggplant, ₰ lb	15	@	25
Garlic, lb	1½	@	2
Green Corn, doz	15	@	25
do large box	—	@	—
Green Peas, sk.	65	@	90
Sweet Peas	1 00	@	1 50
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	20½
Rhubarb bx	75	@	1 25

For Sale.

State and County Rights of a Fly Trap; warranted to keep your house free from flies. Send stamp for particulars to Z. Xevers, 208 Brannan St., San Francisco, Cal.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of pure blooded French Merino Sheep.

Glen Cove Rancho for Sale.

This Rancho is situated at tide-water on the north shore of the Straits of Carquinez in Solano County, and comprises about 415 acres of good grain land. It is fenced and cross-fenced with five-board fence, and is well calculated for fruit raising. Has a young orchard of upward of 700 trees now well started; also a vineyard of 7000 vines of wine-producing grapes. The improvements consist of a large barn covering an area of 30x60, with 15-foot stables on either side; also a warehouse 30x60 for storing grain (with wharf) at tide-water, thus saving the expense of hauling grain for shipment. A wagon-house, a conservatory, sheds for storing machinery, hen-houses and inclosed yards, with a modern-built, two story house with mansard roof and cellar under the whole structure, resting on an 18-inch stone wall; has 15 large, fine rooms, hard-finished walls, furnished with hot and cold water from two large cisterns and a spring upward of 100 feet above the house. Has a fine garden and pleasant surroundings; is about 30 miles from San Francisco and four miles from Vallejo or Benicia, with good roads by land and a pleasant sail by water. The prospective railroad from Santa Rosa to Benicia is expected to pass directly in front of the place, and a flag station is promised by said railroad company. The soil is of a rich loam and very deep. In point of health and climate no section of the State can surpass it. The live-stock and the farming implements will be sold, if desired, at very low figures. A rare opportunity is offered for any one who wants a very desirable place at a very favorable price For further particulars apply on the premises or address, JOHN F. DEMING, Vallejo, Solano Co, Cal.

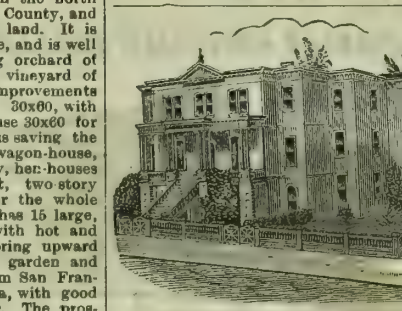
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And upward.

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SENT ON 60 Days' Test Trial.

AGENTS WANTED.

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F. ROEDING,
Proprietor Fancher Creek Nursery.
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Long Red, Mammoth Long Red, and Yellow Globe Mangel Wurzel, Yellow Ovid and Vilmoren's Improved White Sugar Beet Seed; Long White Belgian and Long Orange Carrot Seed.

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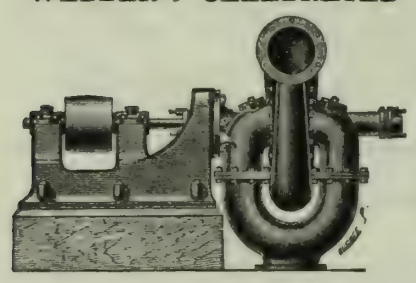
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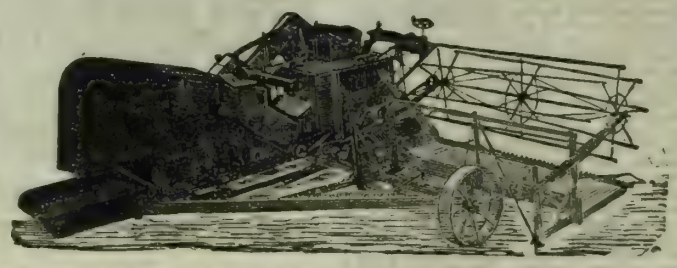


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Not One of These Harvesters Has Been Returned.



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MATTESON & WILLIAMSON,

The only manufacturers in Stockton who make a specialty of making everything needed by the farmer in seeding and harvesting. Among their latest triumphs in harvesting machinery is the unrivaled

HARVEST QUEEN,

To Which They Invite the Attention of the Careful Farmer.

This machine was first placed in the field during the harvest of 1886. From the testimonials of those who have had it in use it is considered the peer of any now offered for public favor. For stanchness of build, lightness of draft, economy of manual labor and animal power, and in saving and cleaning the grain, its equal has yet to be produced. It is so furnished with efficient and ready-operating brakes that the lives and limbs of operators are in no degree endangered. A limited number of the HARVEST QUEEN are being constructed for the harvest of 1887.

ORDERS AND CORRESPONDENCE SOLICITED.

☞ We refer you to the following-named persons who have had the Harvest Queen in use during the past harvest season: D. P. Edwards, Maxwel, Colusa Co.; H. Beckman, Woodbridge; H. W. Childs, Acampo; Ralston & Grigsby, Acampo; Yosemite Stage and Turnpike Co., Maderia; H. W. Patterson, Borden.

STOCKTON COMBINED HARVESTER & AG'L WORKS

Stockton, Cal.

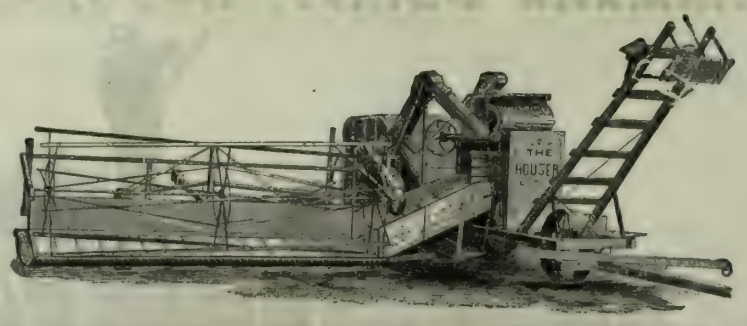
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NONE EVER RETURNED TO THE WORKS.

HAS STEEL SHAFTING & GEARING & WIDER CYLINDER than 1886

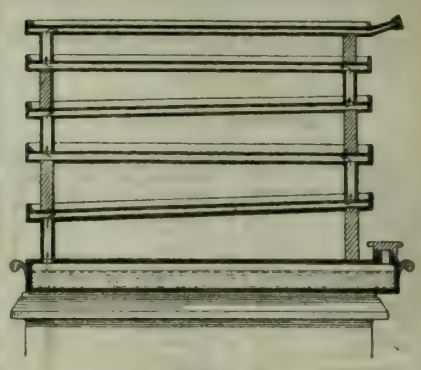
They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. They Save Three Bushels an Acre over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞ See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

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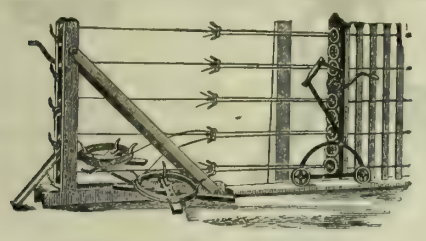
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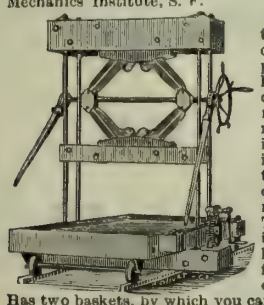
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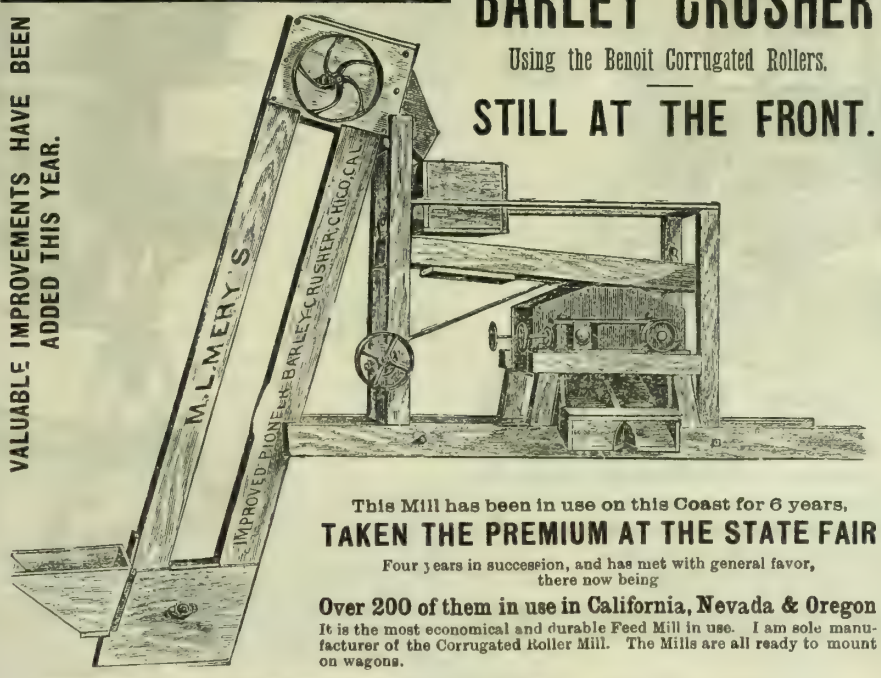
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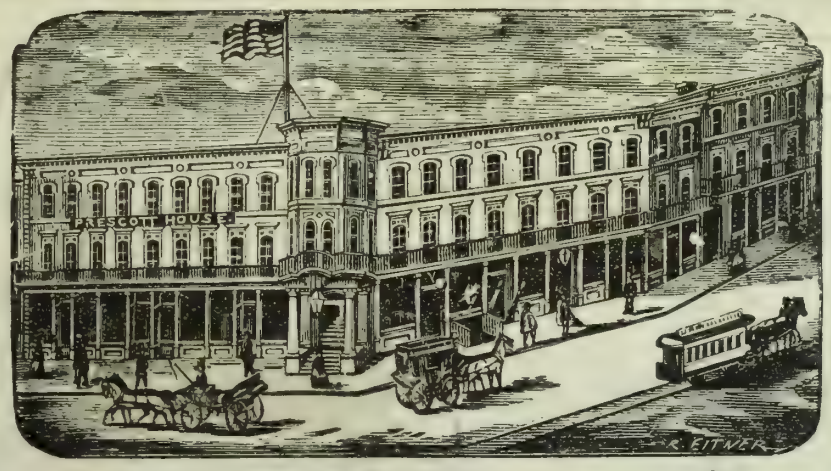
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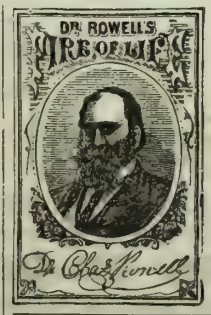
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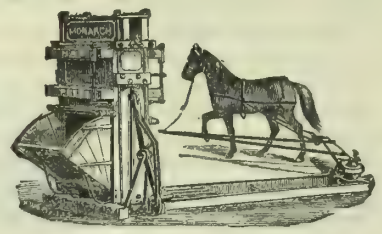
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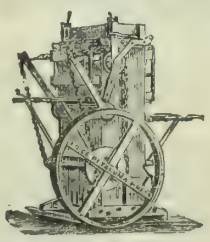
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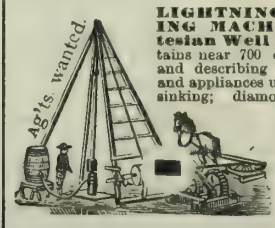
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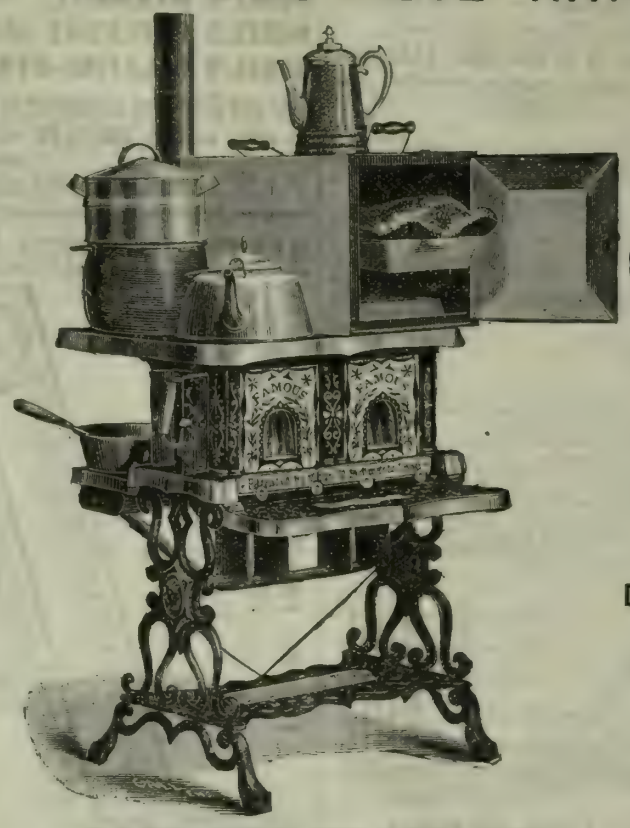
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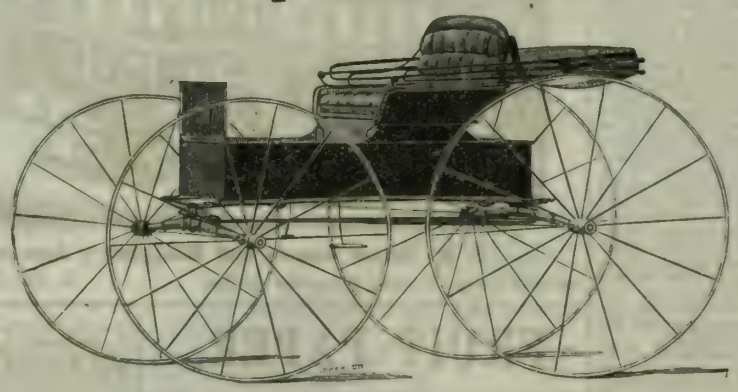
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PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXIII.—No. 25.] SAN FRANCISCO, SATURDAY, JUNE 18, 1887. [$3 a Year, in Advance; Single Copies, 10 Cts.

The Cottony Cushion Scale.

Pertinent to the very interesting letter from Prof. C. V. Riley, U. S. Entomologist, which we published in the RURAL of June 4th, and to the important announcement on gas treatment in this issue, are the engravings which we give on this page of the cottony cushion scale and its ruinous work. The engravings are reproduced by courtesy of Prof. Riley from plates prepared for his forthcoming report on this insect. We shall follow with other engravings of the same series, and accompany them with extracts from the report, which will show that Prof. Riley and his assistants have made most important discoveries in the life history of this insect, which may perhaps be called the most ruinous and detestable of our insect pests. We are disposed to give considerable space to this subject in our columns, because it is important that the presence of this foe should be detected at the earliest possible moment, and we are desirous that all our readers should get its forms so well in mind that they will recognize it if it should appear upon their trees or plants; also that they should be relieved from the anxiety which many have felt because they have mistaken some other whitish scale for this one. The most obvious marks of the insect are clearly shown in the upper engraving, viz., the ribbed or fluted form of the white sack which protrudes from the rear and sides of the female, and which incloses her eggs. The name "cottony cushion" was, if we remember correctly, suggested by Mr. Cooke. It is rather a cumbrous name, but it has served a good purpose. Prof. Riley in his forthcoming report describes it as "the fluted scale," which is an apt epithet—certainly not likely to be overlooked by the ladies. How many of our old bachelors are familiar enough with feminine adornments to know "fluting" when they see it, we dare not say. It would be best of all, if it could be done, that the scale be called by its generic name Icerya. It is a small genus, and if Prof. Riley's surmise, as described in his letter in the RURAL of June 4th, prove correct, the genus will be smaller still.



COTTONY CUSHION SCALES (Icerya Purchasi), AS THEY NATURALLY OCCUR.

The upper engraving on this page is from a drawing of Prof. Riley's and shows groups of females as they cluster on the twigs and branches. They multiply with such wonderful rapidity that they overlie each other, and the combined suction of such girdles of insects is beyond the strength of the tree to endure. In an almost incredibly short space of time, trees show the effects of the attack, with blanched leaves and sickly growth, and are soon done to death by the relentless foe.

The larger engraving shows a few trees which have been infested for a number of months. We have not the record of this case before us, but remember the period as less than 20 months. The trees, as can be seen, are losing their foliage fast. Upon the trunk and branches are the white patches which, upon closer view, would show the groups of insects as shown in the smaller engraving. Not only are the large trees in the foreground infested, but the farther rows are spindling, and evidently have a heavier load than they can long carry.



TREES INFESTED WITH ICERYA PURCHASI, SHOWING DEADLY CHARACTER OF THE PEST.

The announcement upon another page by F. W. Morse, of the results of his work this spring, when detailed for this special undertaking by Professor Hilgard, gives much hope that an effective and practicable vapor-treatment has been secured. The verdict pronounced by the horticultural officials of Los Angeles county, from examinations made after Mr. Morse had returned to the University, certainly gives strong presumptive evidence of the ultimate success and wide use of the treatment which he reached by careful study and experiments. Aside from the almost incalculable value of an adequate treatment for this pest, it will be gratifying to friends of the University to have this renewed evidence of the ability of the institution to apply science in such satisfactory and practicable way. We commend the points set forth by Mr. Morse to all students and experimenters, for they are of course public property, and we trust may lead the way to an easier and more effective scale-insecticide than has yet been introduced. It will, however, require much farther experiment to render the materials applicable for all orchard uses.

A REPRESENTATIVE of a colony of Eastern people is looking for 15,000 acres of land in Douglass county, Or.

The Canadian Competitor.

There seems just now to be no lack of competition among overland railways, and the result is a cheapening of rates both eastward and westward, which must be gratifying to the producers of material for Eastern sale and to our merchants who like to get in Eastern merchandise at low figures. The cut in western-bound rates, which has been made by the Canadian Pacific, will operate against the interests of some local manufacturers, who were counting upon better prices when relieved of the sharp Eastern competition.

The Canadian Pacific seems to be disposed to adopt a most aggressive policy. It carried off the prize in the strife for wool transportation. It has also secured a large traffic in beans and other articles. It does not propose to stop with Pacific Coast trade, but plans for carriage of mails and passengers from Oceanic and Asiatic points to Europe. It may have the advantage of some of our roads in its arrangements with the Dominion Government, but no matter about that, its service promises to be a very useful agency against the combination of United States roads. This combination, by the way, does not seem at present to progress much, and the Atlantic & Pacific is moving in its own interest in a very rapid and effective way. It looks now as though the road which is to have the business is the one which will do it with dispatch and at low rates. This is very desirable on the whole for the Pacific Coast. We seem to be in fact in a much better condition in our railway facilities than was even dreamed of a few years ago.

The Union Pacific has of late exhibited much enterprise in cheap wool rates and has captured much business, carrying out, it is said, over 300,000 pounds last week, and has announced that it will continue the rates of $1 and $1.50 per 100 pounds on greased and scoured wool respectively, notwithstanding the objection of Eastern connections that both rates were 50 cents too low.

THE Santa Rosa *Republican* says: The engineers of the Santa Rosa & Carquinez railroad survey are meeting with some difficulty in obtaining the right of way.

FLORICULTURE.

The Rooting of Plants from Cuttings.

EDITORS PRESS:—This is a much simpler matter than many suppose, there being few flowering plants which are not easily propagated in this way. Although the early spring, before the sap has started, is, as a general rule, the best time for putting them in, I have had good success with all sorts in every month of the year.

Those which are put in very early will probably yield three-fourths of the whole in young plants; those put in two or three months later (or even in the less favorable parts of the year) probably one-half, if reasonable care is given them.

A great many make the mistake of using the soft, new wood for cuttings which are to be rooted in the open air, and these, according to my experience, are almost sure to die.

Soft Wood Cuttings.

If you are going to root them in a hothouse, or hotbed, then take the tender ends of shoots which are just losing their first softness, or beginning to be very slightly woody. Take those which are just beginning to put out buds at the base of the leaf, cut them about four inches long, trimming off the top to prevent flower-buds forming, and insert for about two-thirds their length in the warm, moist sand, pressing it firmly around them. Keep them moist, not wet and not too warm. The great trouble in hothouse rooting is apt to be too much heat or moisture, rotting the cuttings.

Roses, heliotropes, fuchsias, pelargoniums (Lady Washingtons), geraniums, and most shrubs, are easily rooted in this way. Carnations or pinks need to be kept not too wet, as they rot easily. To propagate them, use the tenderest young shoots which grow at the base of the plant, strip off the lower leaves or trim the rest back.

The Rex begonia, the Hoya or wax plant, and all cactuses, are propagated by a piece of the leaf, cut smoothly and inserted in the sand, though the cactus leaf must be dried away for a couple of months beforehand by laying it in a place away from the sun till it has lost its plumpness and looks slightly withered.

Cuttings in Open Ground.

The cactus roots equally well out of doors in the same way, and indeed though hothouse cuttings rot rather more quickly, I rather prefer to root simply in the open ground. To do this, have your cuttings of good size and cut from the woody portion, using no new growth, except in a few instances which I shall mention. Trim off all, or nearly all, the leaves, and cut the rooting end with a clean, diagonal cut; or, what is still better, with a crosswise piece of the old woody branch at the end, making your cutting the shape of a letter T. This seems to make the most vigorous plant when once started, having more rooting surface.

Some in slipping roses always split the cutting for a half inch at the bottom and insert a grain of wheat, claiming that cuttings so treated are sure to root. I have tried it with good success, and it certainly gives, like the T-shaped cutting I have mentioned, a larger rooting surface than will otherwise be had. Cuttings of roses, fuchsias, verbenas, carnations, heliotropes and most shrubs, require a partial shady spot, or one which receives only the late afternoon sun. Have the ground thoroughly softened quite a foot deep, or put the cuttings in as thick as you please (they may be but ½ an inch apart if you choose), but be careful always to plant them deep, allowing but little to stand above the ground, so that the rooting end may never thoroughly dry out.

Be careful to press the earth very tight around them, and after they are in do not hoe around them nor disturb the earth in any way, no matter how hard it may pack, as the air getting to the new rootlets is sure to kill the cutting.

It is wise after they are planted to take a hoe and ridge the earth upon either side of them, leaving the cuttings in a sort of shallow trench; then when you water them, instead of running off, the water sinks in and you are sure they are moist clear to the end.

They should remain in the original position at least three months, and four or five is better than three. Do not be deceived by their putting out leaves or even flower-buds in a few instances, as they will do this often when not a rootlet has started.

When they have remained without withering for three or four months, and then send out leaf buds, it is safe to suppose that they are rooted. Then move them carefully to the places they are to occupy, shading for a few days till they show no signs of wilting.

Do not soften the earth too much after the first preparatory pulverizing, until they have taken a good hold upon the ground. Many young plants die in this way, killed by kindness.

Special Points.

Pink or carnation cuttings should be planted deep, and kept moist, not wet. Using as for the hothouse, the new shoots cut back, but selecting the larger and older, rather than the very tender ones. Pull off all the under leaves, and cut the others back to a small top.

Heliotropes are among the hardest plants to root from cuttings, being very tender. To do this out of doors, select the woodiest stalks, cutting off every bit of soft wood and all leaves. Plant them in a cool, shady spot and keep moist, never allowing them to dry out. It takes longer for them than some others, but they will root if properly cut or planted.

Magnolias, lemon verbenas, jessamine, and shrubs of that sort, are quite easily rooted by using the newer wood, taking large cuttings, giving them partial shade and keeping them moist. They require more time than roses.

Verbenas are easily propagated in this way—by simply laying a piece of a branch flat and covering with earth kept moist; they root at every joint.

Few know that pansies root quite readily from cuttings. Take the older branches, and bury deep, keeping them moist and shaded, and they soon root, if never allowed to dry out.

Pelargoniums, rose, and all varieties of geraniums (especially the high-scented ones) require heat and sunlight.

Select a place where the sun shines warm (for pelargoniums and scented geraniums, the hottest place you have), soften the earth well and put in woody cuttings deep (trimming off all, or nearly all, the leaves and all soft ends). Soak them well at first and afterward keep them but slightly moist, never at all wet.

Geraniums need even less water and will surely rot if they receive too much before they are rooted.

Some recommend drying them for a day or two before planting. They are among the few plants which root about equally well from either soft or hard cuttings.

Marguerites root almost as easily and will grow nearly anywhere and under almost any circumstances, though they rather prefer the sun. You may break off branches ever so carelessly and put them in with the tops nearly all on, yet if you only put them in deep and tramp the earth tight around them, they will soon begin to send out tops and blossom almost as soon as rooted.

Those who complain of their ill success at propagating plants in this way will probably find, if they study up the matter, that their cuttings were not properly selected or trimmed in the first place, and after that were kept too wet and cold. GARDENER.

North Temescal.

HORTICULTURE.

American Pomological Society.

At the last session of the American Pomological Society, held in the city of Grand Rapids, Michigan, September 8–11, 1885, the Massachusetts Horticultural Society, through its president, presented an invitation to hold the next biennial session at Boston. This was also the strongly expressed wish of President Wilder, who desired to meet the society once more in his own city. The invitation was accepted, and therefore the next session will be held in the city of Boston, commencing on Wednesday, September 14, 1887, at 10 o'clock A. M., and continuing three days.

The session will be held in one of the rooms of the Massachusetts Charitable Mechanics' Association building, and the exhibition of fruits will be held in conjunction with the Massachusetts Horticultural Society's annual exhibition in the great hall of the same building.

All horticultural, pomological, agricultural and other kindred associations in the United States and British provinces are invited to send delegates, and all persons interested in the cultivation of fruits are cordially invited to attend.

The society will not have the hoped-for pleasure of meeting its beloved president, who was stricken down by death, full of years and honors, just as he had commenced to prepare for this meeting; but it is hoped and expected that in honor of his memory there will be an unusually large attendance of members and delegates from all parts of the country, and that the session will be one of the most interesting and useful ever held by the society. The sad emergency which has arisen from the death of President Wilder, who had so wisely and successfully guided the society for so long a period—indeed it may be said through its entire progress—makes it incumbent on all its true friends to rally now to its support, that its good work may be carried forward without interruption.

During the 38 years of its existence, the society has accomplished much in the interest of pomology and the fruit-growing industry of our country. It has effected an organization, through its committee, in every State and Territory. In its biennial reports it has brought out the latest and best experience. It has made an important advance in the needful reform of pomological nomenclature, and has compiled a national catalogue consisting of 900 varieties of fruits adapted to the several States and Territories, with their varying climate and other conditions. Much is yet to be done, and with the experience acquired and facilities now enjoyed, the work of the future will be of greater value to the country than that of the past.

The Massachusetts Horticultural Society has, with its accustomed liberality, appropriated the sum of *five hundred dollars*, to be offered in special prizes for fruits to be exhibited at the meeting of the American Pomological Society in connection with the Annual Exhibition of the Massachusetts Horticultural Society during the pomological meeting. A list of these prizes furnished on application to the secretary.

Parties intending to exhibit should give timely notice to Mr. E. W. Wood, at Horticultural hall, Boston, stating what prize they will compete for, and the number of dishes they will exhibit, so that space may be reserved. Packages of fruits should be addressed to E. W. Wood, at the Massachusetts Charitable Mechanics' Association Building, Boston, Mass., freight and express charges prepaid.

P. BARRY, First Vice-President.
CHARLES W. GARFIELD, Secretary,
Grand Rapids, Mich.

The Canton Hybrid Orange.

EDITORS PRESS:—Per steamer City of New York I send you samples of a variety of orange growing here—a late-keeping variety which has not been exported yet. Being regarded as far superior to Oonshiu and Kino-Kuni and other oranges of Japanese origin, I am anxious to bring it before the public. It originated in China, but has been for years cultivated in Japan. The tree is a very vigorous grower. Can be grown bushy or cultivated as a standard tree. You can judge of size of fruit by samples sent, and I trust that they will keep good also of flavor, though when grown in California, fruit plucked fresh from the trees would naturally be far superior in quality. The trees attain a hight of 20 feet here, and can bear frost or a temperature of 20 degrees above zero, Fahrenheit. It is known as the Canton Hybrid orange and would certainly prove a valuable acquisition to the citrus fruits of California.

This is a wonderful country for all manner and sorts of trees and plants; the *Citrus Japonica* (of which you may remember having seen small plants at 317 Washington street) makes a large tree 18 to 20 feet high, with its branches laden with the golden fruit. It will certainly grow to be a great favorite in California.

My sojourn has been as yet so short that I cannot say much. We are starting for the south of Japan next week. On our return from there we will visit the northern provinces. I will take notes all along, and the first leisure moments inform you of any point of interest I may come across along my route.

We have eaten bamboo shoots cooked, which are used as a vegetable, and they can be classed with artichoke, to which they bear great resemblance in flavor. I will write all about bamboo varieties, uses and culture, later on.

HELENE BERGER.

Yokahama, Japan, May 13th.

[The fruit was unfortunately too closely packed, and was decayed and moldy when opened. We could judge of the size, which is certainly a desirable one. The flesh was tender, very juicy, the skin thin, but the flavor had departed. We shall be glad to hear further of our correspondent's observations in Japan.—EDS. PRESS.]

ENTOMOLOGICAL.

The Use of Gases Against Scale Insects.

University Experiment Station, Bulletin No. 71.

Some time ago the Agricultural Department was requested by Messrs. A. B. and A. S. Chapman, Mr. L. H. Titus and Mr. J. C. Newton, prominent orange-growers of Los Angeles county, to conduct experiments with the view of determining the efficacy of certain gases as insecticides—with special reference to the white scale, *Icerya Purchasi*. The following is a summary of results, of which a full report will be published hereafter.

The use of gases for this purpose has been long contemplated, and various appliances have been suggested for the ready application of any efficacious gas. The ease with which gas penetrates to all parts of the tree naturally suggests its use as preferable to washes, which at best leave many parts of the foliage and infested branches untouched, even when sprayed with the greatest care. In order that the gas may be an efficient insecticide, it must be so poisonous that even when applied in small quantities it produces fatal results; for in the application the air confined in the tent covering the tree dilutes the gas to a great extent. Again, the gas must be capable of being generated quickly in sufficient volume. The record below shows that only one of the gases employed fulfilled these conditions to a satisfactory extent. Preliminary experiments with some others having shown their unfitness for the purpose, either on account of expense or because of injury to the foliage, or imperfect action on the insects, their study was not pursued further.

Appliances for Application.

The tent for covering the tree is made of heavy bed-ticking, thoroughly oiled with linseed oil. This cloth serves the purpose best, as it is very closely woven, is pliable and easily folded.

The support of the tent, devised by Mr. Titus, is a very ingeniously contrived scaffolding mounted on wheels, which serve to move it from one tree to another. Its dimensions are 26 feet high, with a base 20x20 feet. Its upper part is 20x12, and carries upon the top a roller made of galvanized iron (6 inches in diameter and 12 feet long), upon which the tent is rolled when taken from the tree. Side guy-ropes are attached to the bottom of the tent and run through pulleys at the upper corners of the scaffold. They are used to open the tent when it is to be dropped over the tree, and to fold it up when it is removed. The lightness of the apparatus allows of its being easily removed by two men, who operate the whole. If necessary, two or more tents can be handled by the same scaffolding, one tent being left over the tree while the scaffolding is moved to the next.

In adjusting the tent, the bottom is placed on the ground about three feet from the tree and covered with earth. This brings the gas to bear upon the base of the tree and the surrounding soil.

The generator in which the gases were produced consists of a heavy sheet-iron cylinder, 11 inches in diameter and 13 inches high. The bottom rests on a plank, and to the top is fitted a movable cover suspended in a frame by a bench-screw. Into the cover are fitted two pieces of gas-pipe—one for the exit of the gas toward the tent, and the other, connected with a pump, carries the gas which returns *from* the tent. Two small reservoirs are also inserted in the cover; in these are contained the solutions which are to flow into the generator for the production of the gas.

In order to establish circulation and to force the gas into the tent, a pump is used, which also serves to exhaust the gas from the upper part of the tent and to force it again through the generator. It is proposed to replace the pump by a small fan-blower, which is much more expeditious than the common pump which was used.

The Gases Experimented With.

Among the gases used were chlorine, sulphuretted hydrogen, ammonia, carbon bisulphide, carbon monoxide, carbonic acid, hydrocyanic acid, and carbolic acid vaporized by heat.

Chlorine. — Some preliminary experiments were made in small vessels into which this gas had been introduced. Some infested branches were allowed to remain in them for times varying from 5 to 35 minutes, without any noticeable effect being produced on the insect. Atmospheres more strongly saturated with the gas proved fatal to the insect in a short time. In other treatments extending over 18 hours, with less saturated atmospheres, only a small percentage of the insects was killed. No decided effects were noticeable on the foliage unless the gas was very concentrated.

Carbon Bisulphide.—A lime tree, 12 feet in diameter of top, was treated with the vapor of 2½ pounds of sulphide of carbon for 45 minutes. At the end of this time the insects were lively, and during the treatment had crawled up and collected around a rope surrounding the tree, at the point where the gas was being injected from the hose. It proved that the gas thus used injures neither the insects nor the foliage. It is upon record, however, that in cases where the vapor has not been thoroughly diffused, but was allowed to flow down from an open vessel placed in the top of the tent, serious injury was done to the foliage at points where the undiluted vapor flowed down.

Sulphuretted Hydrogen.—Several treatments with this gas were made on a small scale, the application lasting from 5 to 35 minutes. The effects produced either with diluted or concentrated gas were similar to those produced by chlorine, except that even the concentrated sulphuretted hydrogen did not injuriously affect the foliage. An experiment in which a whole tree was treated in the tent for 45 minutes, with quite concentrated sulphuretted hydrogen gas, showed clearly that the effect was far from being satisfactory; the insects for the moment were stupefied, but in the course of an hour and a half the majority of them were again moving about.

Ammonia.—The vapor from one pound and a half of strong ammonia water was applied to an 11 foot lime tree for 30 minutes. The results were disastrous to the foliage; the leaves were all scalded, and in a few days all dropped from the tree, and even the newer growth of wood was injured. The insects, however, were not perceptibly harmed.

Carbon Monoxide.—Very strong hopes have been entertained by many for the successful application of this gas. Its apparent cheapness and easy production, when the necessary plant is once erected, would recommend it. Unfortunately our experiments show that it is not sufficiently effective to warrant its use. The gas was obtained by forcing air through a small furnace filled with red-hot charcoal, care being taken to cool and to measure the gas before applying it. No appreciable effect was noticeable after 40 minutes. In a duplicate experiment, in which the charcoal was more strongly ignited and continuously introduced into the barrel for 30 minutes, only slightly better results were obtained.

Oxalic Acid.—It was thought that the production of carbon monoxide by decomposition of oxalic acid by heat might be substituted for the previous method of generating this gas. One-quarter of a pound of oxalic acid was ignited, and the gases applied in a manner similar to that of the preceding experiment. Neither the insects nor the foliage were harmed in the least. This experiment has incidentally shown that the vapor of formic and oxalic acids, also produced during the heating of the latter is likewise ineffective.

Carbolic Acid.—It had been suggested that

carbolic acid vaporized by heat would prove fatal to the insect. A dose of half a pound of liquid acid was volatilized in the furnace, and the vapor blown in the vessel containing the infected branch. At the end of 20 minutes all the old insects were still alive, and some of the young ones, just molted, were moving about. An hour later the foliage appeared as if scalded.

Hydrocyanic Acid.—It was only with hydrocyanic, or prussic acid (generated by the action of sulphuric acid on potassium cyanide), that sufficiently fatal effects were secured to warrant a more thorough determination of the time of exposure and quantities of material which would produce the best results. Numerous experiments were carried on for this purpose, and it was shown that even small amounts were effective. It was also shown that even in these small quantities an injurious effect upon the foliage was produced. In the beginning of the experiments, "mining cyanide" of potassium was used. It is a very impure material and contains along with the cyanide a considerable amount of carbonate of potassium. For this reason many of the first treatments were practically ineffective.

Later treatments with pure cyanide were more successful in destroying the insects, but the foliage was proportionally injured. Treatments varying in dose from 4 to 12 ounces of cyanide, and in time from 15 to 60 minutes, showed that the effect produced on the foliage by longer treatment was not proportionally greater than that produced by short treatment. Neither was the effect of longer treatments proportionally more fatal to the insects. It was thus clearly shown that the gas mixture should be of considerable strength in order to insure rapid action.

The effect of the gas was so disastrous to the foliage that it became necessary to find some means of remedying this trouble. This was sought in applying a second gas, which might preserve the foliage. Sulphuretted hydrogen was therefore injected into the tent, together with the cyanide gas, both from the same generator; a portion of the sulphuretted hydrogen being introduced before the cyanide was generated. It was found that the insects appeared stupefied when the tent was raised, but large numbers revived in a few hours. The effect of the cyanide seemed therefore to have been decreased by the sulphuretted hydrogen. The foliage was not preserved, although not so badly affected as by treatments with cyanide alone.

Carbonic acid gas was next tried. Trees were treated with larger doses of cyanide than heretofore used, and the carbonic acid from 1½ pounds of carbonate of soda was at the same time introduced with these doses. The insects were killed and the foliage of a 12-ft. tree remained unharmed, while that of a 14-ft. tree with the the same amount of carbonic acid was slightly injured. Thus it was shown that it would require 1½ pounds of bicarbonate of soda to preserve tree-tops 12 feet in diameter, and that with this protection the deadly cyanide could be successfully used.

The regulation of the doses for the different sized trees so as to produce uniform treatments is calculated on the basis of the results of the experiments which determined the amount of each constituent for a 12-foot tree. The following table indicates the amounts for trees of different dimensions of top, based upon the rates of cubical contents:

Size of Tree, feet.	Cyanide of Potassium, fluid ozs.	Bi-Carbonate of Soda, pounds.	Sulphuric Acid, fluid ozs.
4	.7	.05	.4
5	1.6	.11	.3
6	2.5	.20	1 3
7	4.0	.29	2.1
8	6.0	.44	3.1
9	8.5	.63	4 5
10	11.5	.87	6.2
11	15.5	1.14	8.2
12	20.0	1.50	11.6
13	25.4	1.90	13.5
14	31 6	2 50	16 6
15	39 2	2 92	20 7
16	47.5	3.53	25.2
17	57.5	4.23	30.1
18	67.7	5.05	35 8
19	70 9	5 93	42.1
20	90.5	6.93	49.2

In order to apply the doses easily they are prepared so that the required amounts of each ingredient can be directly measured. The cyanide solution is prepared by dissolving say 10 pounds of the solid salt in about 2¼ gallons of water, warmed nearly to the boiling point, stirring at intervals, cooling, and then diluting to 2½ gallons. This solution will contain about one ounce of cyanide of potassium to 2½ fluid ounces of the liquid.

The bicarbonate of soda is pulverized finely and measured off in a vessel marked, so as to designate pounds and fractions of a pound of the solid material. It is then placed in the generator and the dose of cyanide mixed with it, and, if necessary, a little water added to make it into a thin paste. After adding the measured dose of sulphuric acid, the pump is worked slowly at first, and more rapidly after the gas has passed into the tent. The time for each treatment must be determined by future experiments; 15 minutes seemed to be quite sufficient when the cyanide alone was used, but it may be desirable to extend the treatment to 30 minutes when the foliage is protected by the carbonic acid gas.

It is advisable that the treatments should follow cultivation after about four days, so that all weeds and places where the insect may find lodgment would be destroyed. The insect will then be on, or very near, the tree; the fitting of the tent to the ground is thus also much easier.

The eggs of the insect remained apparently uninjured, wherever protected by the woolly covering. A second treatment, to destroy such as may afterward hatch, will therefore be necessary.

It must not be understood that these experiments definitely settle the mode of operation and the size of the doses to be used. They are merely suggestive of a general plan which can be so perfected in the future that the application of this remedy to other kinds of trees and insects must be attended with good results. It simply remains for the ingenious cultivator to devise the necessary appliances for its use, on a small scale, on all sorts of fruit trees, shrubs and plants.

It must not be forgotten that extreme care in the handling both of this deadly gas and of the cyanide itself is necessary. To inhale the one, or to taste or touch a wound with the other, may lead to serious consequences.

Berkeley, June 12. F. W. MORSE.

Action of the Los Angeles Supervisors.

Just after the foregoing was written, the following letter was received from A. Scott Chapman, of San Gabriel, member of the California State Board of Horticulture:

SAN GABRIEL, June 8, 1887.

F. W. Morse, University of California—DEAR SIR: The Board of Horticulture of Los Angeles county have been out to examine the work done by you at Mr. Titus' place and have pronounced it the best "killing" that they have ever seen.

They asked my father (Mr. A. B. Chapman) to go before the Board of Supervisors and make a statement of your work. He went before the board and explained things to them. They then agreed to pay all the expenses incurred by him and Mr. Titus; they further agreed to ask you to come down again and carry your plan to completion, agreeing to pay all your expenses and salary, the same as was done by Mr. Titus and my father, during your previous visit.

Very respectfully yours,
A. SCOTT CHAPMAN.

SERICULTURE.

Government Purchase of Cocoons.

Hon. N. J. Colman, U. S. Commissioner of Agriculture, issues the following circular, which will be of interest to our silk-growing readers:

At the last session of Congress additional appropriations were made for continuing the work of this Department for the establishment of silk culture in the United States. Under the provisions of this Act I shall continue the experiments in silk reeling in this city, and shall purchase the cocoons necessary therefor on the following terms:

From the States bordering on the Gulf of Mexico, lots will be purchased at any time after the first of July, 1887. From all other portions of the country they should not be shipped before October 1st. This distinction is made on account of the difference in the seasons in the several parts of the country, and the fact that cocoons produced in the north would hardly be dry before October, while those of the extreme south, being raised much earlier, are sooner ready for the market.

The highest price that will be paid will not exceed $1.15 per pound, and this will be given only for cocoons of first quality. For those that are inferior such prices will be paid as their quality will justify, and it must be remembered that very poor cocoons cannot be reeled and are only salable as waste, and as such bring excessively low prices. In the present state of the industry in this country, but few raisers produce cocoons of such quality as will command the maximum price quoted.

Persons having cocoons to sell should notify this office before shipment, so that they may be informed whether or not the full quantity required has been purchased. This may be done upon the inclosed official postal card. No cocoons will be purchased except by previous agreement, and lots shipped without regard to these instructions will not be returned to the shipper at the expense of this Department. With the notification should be sent a sample of cocoons, which may be mailed without payment of postage if the inclosed franking label be used. This sample should be sent in a tin or wooden box, and should consist of at least 20 cocoons. Upon its receipt the shipper will be informed, approximately, of the price which will be paid for the cocoons. But as it is extremely difficult to judge of the value of the whole lot by the inspection of a small sample, I cannot undertake to bind myself by the estimates thus given. The experience of the past year, however, has shown that, while many lots were not equal in value to the sample sent me, others were of superior quality, and in such cases the prices paid for the lots were better than those quoted on the samples. Such a policy will always be followed. Lots of cocoons weighing not more than four pounds may be sent by mail with one of the inclosed slips attached.

In shipping samples or lots of cocoons it is very important that the name and the address of the shipper should be placed inside of each parcel or box. All freight and express charges must be prepaid by the shipper.

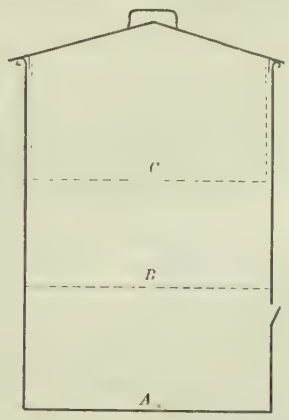
In order to save transportation expenses it is suggested that neighbors combine their small lots in one case and ship them by freight. The lots should, however, be separately packed in the case and each labeled with the name and address of its owner. It is also suggested that all lots that are large enough be shipped by freight instead of express, as there is no danger of the cocoons spoiling, and a great saving of expense will result.

No special instructions are needed as to the packing of cocoons for shipment beyond calling attention to the fact that crushing must be guarded against. Much breakage has occurred in pasteboard packages sent by mail, and shippers are advised to avoid this mode of packing. No soft or foul cocoons should be placed in the case.

The following extract from the forthcoming report of the Entomologist will prove of immediate importance to such silk-raisers as have not yet stifled their cocoons.

Instruction for Stifling Cocoons.

"Our experience in the filature has shown us that our people are sadly deficient in their knowledge of the art of stifling cocoons, and many lots have been received which were of otherwise excellent quality, but which had been burned by the employment of improper means for destroying the life of the chrysalis. It is the custom in Europe for the silk-raiser to dispose of his cocoons at the filature as soon as they are raised and before they have been stifled. The raiser then has the advantage of getting payment for his work as soon as it is completed, and the silk-reeler is enabled to stifle his cocoons in large quantities and by the most approved process. This scheme, however, has thus far been found impossible in the United States, as silk-raisers are, as a rule, located so far from the available markets that there would be danger of the moths piercing the cocoons before they could be choked. American buyers have therefore been obliged to purchase only stifled cocoons which have been thoroughly dried, and as this process of drying requires several months, silk-raisers have not received the proceeds of their season's labor until well into the autumn. And again, through inability to purchase apparatus, or through lack of knowledge on the subject, they have resorted to such means of stifling as were at their command, and have destroyed, in many cases, an otherwise excellent crop. This burning of the cocoons may always be obviated by using steam in their stifling, and afterward thoroughly drying them to prevent molding. A very efficient though simple piece of apparatus for thus stifling cocoons was purchased last spring by this Department of the New York Silk Exchange, and is within the means of most silk-growers. A sketch of it, in a slighly modified form, is shown in the figure. It consists of a tin reservoir, about one-third filled with water. Slightly above the surface of the water is a movable



perforated partition, *B*, intended to prevent spattering during ebullition. The upper portion contains a perforated pan for holding the cocoons, while all is tightly closed by a cover. Cocoons may be thoroughly stifled by exposure in this apparatus over boiling water for 20 minutes. It will be seen, too, that much the same apparatus may be contrived by the use of a deep kettle, into which is set an ordinary colander full of cocoons. It is well to avoid, however, so filling the kettle with water that it will splash upon the cocoons in boiling, as they should only be subjected to the action of steam. The apparatus owned by the Department is 12 inches in diameter and 13 inches deep, and will stifle from three to four pounds of cocoons at a time."

Silk-growers will find complete instructions in the art of raising silkworms in Prof. Riley's pamphlet, "The Mulberry Silkworm," which is gratuitously distributed by this Department.

Encouragement given in the past has, unfortunately, led to the production in large quantities of eggs of inferior quality, for which raisers have found practically no market, and they have therefore failed to earn even that sum of money which they might have realized had they stifled their cocoons and sold them for reeling. The policy, therefore, adopted last year not to purchase American silkworm eggs and to discourage the extensive production of such eggs will be adhered to, for I deem it unwise that raisers should be assisted in this direction. In this connection the Entomologist says:

"In 1885, as stated in our last report, a quantity of silkworm eggs were purchased of American silk-raisers and 150 ounces were distributed to applicants in different parts of the country. The general result was so unsatisfactory as to prevent the repetition of the experiment. There were but few of the sellers who had the slightest idea of the care to be taken in egg production, and it has not been thought wise to continue the encouragement of this kind of work. There is, too, undoubtedly, evidence of the existence in the country of much 'seed' of inferior races, and it is our aim to prevent the use of this as much as possible by the gratuitous distribution of choice qualities."

With this object in view, I shall purchase foreign eggs from reliable houses and distribute them (between January 1 and June 1, 1888) in limited quantities to silk-raisers. Applications may be made directly to me. While thus discouraging any attempts to raise silkworm eggs with a view to sale, I am ready to afford any aid in my power to raisers who desire to produce eggs for their own use. Extreme care in such production cannot be too strongly insisted upon, as two silkworm diseases are hereditary and may pass from one generation to another through the eggs. Before attempting egg production, therefore, raisers are recommended to give careful attention to the contents of Chapters V and VI of the pamphlet mentioned above. All the precautions therein set forth may easily be taken by any person of ordinary intelligence. In case the lack of a microscope should deter any person from submitting the moths to a proper examination for pebrine, such examination will be made at this Department without expense to silk-raisers so far as the eggs produced may be intended for their own use and not for sale. Instructions in regard to such examinations will be furnished upon application. It is suggested also that the worms destined for reproduction should be raised apart from the others and that they be chosen from those born the first day. They should, too, be fed more plentifully than the others with a view to bringing them sooner to maturity. Each time the litter is removed the backward worms should be discarded. If it is too late on receipt of this circular to effect this choice after birth, make it from the worms which first emerge from the next molt.

Special arrangements for the safe-keeping of eggs during the winter have been made here, and persons who so desire may send their eggs to this Department for hibernation. Such eggs should be sent in bulk, in proper boxes, after they have been washed from the cloths on which they were laid.

NORMAN J. COLMAN,
Commissioner of Agriculture.
Washington, D. C., May 9, 1887.

THE FIELD.

Suckering Corn.

EDITORS PRESS:—The custom of suckering corn, so common in this State, is, it seems to me, not only a foolish one, but absolutely injurious to the plant. I have grown corn for the last 50 years, at the East and in this State, and never did such a thing as to wound the growing stock by tearing from its roots what nature evidently designed for its good. As I have heretofore remarked, nature makes no mistakes. No more leaves are furnished to a plant than are necessary for its healthy growth and full maturity of the grain. What the parent stalk lacks in leaves is made up by the leaves of the suckers, and they are produced just at the critical time when all the powers of the plant are required to mature the grain. The "dent" variety of corn usually has no suckers, for the reason that the leaves are much larger than those of the smaller varieties. If suckers are left to grow, many of them will produce good sound ears of corn, besides furnishing an abundance of most excellent forage for stock. A neighbor raised a fine patch of corn last year, and took up with my advice not to sucker it, and he said he never raised a better crop. Some of it took first prize at our district fair.

If people would cut up their corn as soon as the kernels are out of the milk, and while the stalks are yet green, and set them in shocks, putting 25 to 30 hills in a shock, binding the tops securely with two bands, instead of leaving it in the hill, exposed to the scorching sun and dry winds, their corn would be much plumper and heavier, and the stalks would be found to be equal to the best of hay for all kinds of stock. If a grain-producing plant of any kind be severed from its root as soon as the grain is out of the milk, all the needful nourishment to the grain will go directly to the grain; whereas, if left standing, the sap or juices in the stalk will be dried out by the sun and wind. I have found, by actual experiment in this State, that a bushel of ears of corn, taken from stalks cut up green and bound up snug, weighed considerably more than the same quantity taken from stalks left standing in the hill till they dried out. J. S. TIBBITS.

Santa Rita.

WORK OF A PUMP.—The amount of water a pump will throw equals the displacement, *i. e.*, the area of the plunger multiplied by its stroke in inches. Multiplied by its number of strokes per minute, this divided by 231 (cubic inches in a gallon) will give the duty in U. S. gallons, always presuming the water cylinder to be completely filled and emptied at each stroke, a condition that rarely occurs.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Arcadian Promises.

EDITORS PRESS:—Some time ago I promised to review last year's contributions to the kitchen literature of the PRESS, but so far I have failed to keep my word. I like to keep my word; in these days of sharp practice it is all that ordinary men can keep. Still my conscience troubles me more for making the promise than in not fulfilling it. The tempter whispers in my ear: let the dead past bury its dead; let us have living issues. Nevertheless the whisper is not strong enough to quiet the sneaking consciousness of a duty unfulfilled and that all the fine talk about a dead past means only an excuse to get out of a task, for I do find that my promise involved more work than I had supposed, and (to be plain and truthful) I am not as much interested in the subject as I was.

I believe I told you that a "ministering angel" came to my assistance and took supreme and unlimited control of the kitchen and all the rest of the house, myself thrown in. I abdicated at once and made an unconditional surrender. It is really wonderful to notice how easy and simple the whole thing now appears.

I sometimes take a glance, a passing glance, at the former scenes of my labors, where stewing, sweating and s——g used to prevail. (Please spell that word *singing*.) Everything is now going on admirably, and I do not now see the need of making such a fuss about kitchen slavery. I find, too, that to propose any effectual remedy would be simply the inauguration of a revolution in society, to be cheeky enough to ask all men and women to step down and out of their present absurd positions and assume that of what may be the prevailing fashion of 1000 years hence,

> When man to man, the world o'er,
> Shall brothers be for a' that;

When the lion and the lamb shall lie down together, with the lamb outside of the lion—when, in short, the world will be one great consolidated Grange, with all its inhabitants Patrons of Husbandry and all of them readers of the RURAL PRESS and the *Patron*. Selah.

In the articles furnished the PRESS on the kitchen, I found many very useful and sensible hints and suggestions, but the principles involved in them all, when boiled down, were just as applicable to outside as to inside work, to work in a machine-shop, in a printing office or in a counting-room. Care, thrift, efficiency, system and order; an orderly arranged kitchen, with a good supply of everything needed, with all the latest improvements; a place—the best place for everything, and everything there all the time, with a full knowledge of the best methods of cooking, supplemented by an acquaintance with hygienic and sanitary laws. This, I think, is a compressed summary of all that has been said. But the whole farm—in fact, the country at large, is on the strike for the same thing, and I would not wonder, if the matter was statistically looked into, but we would find that the condition of the farm and its kitchen ran on parallel lines.

If system and thoroughness be found on the farm it will be reflected in the kitchen.

I see as much slavery outdoors as indoors—too much drudgery everywhere, and—I hope it is not profanity—I have ever before me an irrepressible protest against the original curse, an inherent dislike to labor—laziness, if you will have it so. I do protest against the everlasting tread-mill of arcadian drudgery. I receive through the mail agricultural papers, political papers, economic papers, philosophical papers and local papers, and find no time to read them. All day long and every day there is on the farm an ever-present imperative demand for labor, nay, a dozen demands all clamoring for instant attention. The farmer cannot finish a fine piece of work and look at it with complacency, satisfaction and admiration as in other crafts; while he is admiring his work a new demand will grow out of its completeness demanding further improvement. Work on a farm and in a farmer's kitchen is like the little boy's nose, when he was asked why he did not wipe it, "I did," said he, "but it won't stay wiped."

Call me lazy or compliment me as you may, I do not believe this condition of things should be. Neither in the kitchen nor in the field should work assume the form of drudgery.

The farm should be my servant, but it is my master. Even farmers are made for other objects beside labor. They are, believe me, human beings with an intellectual, moral, and spiritual nature as well as a physical framework; and on the farm the intellectual, moral and spiritual ought to have a show, especially as in no sphere of life are the potential elements by which they can be developed so abundant as on the farm.

Face to face with nature continually and away from the artificial, deceitful, hypocritical life of the city, he should be able to live continually in blessed heavenly communion and

> Find tongues in trees, books in running brooks,
> Sermons in stones, and good in everything.

Why is it not so? What is it that is needed to rouse the farmers from the stupor which lies like a pall over them all? Will some Demosthenes assume a mission among them and enable them to see themselves as they are, and show them how easy it is to be emancipated?

The Grange is all at present we can look to. To the Grange we must look and use it as a stepping-stone to the best that can be done for deliverance from drudgery in the kitchen and in the field. J. W. M.

Tulare, June 4, 1887.

The Worthy Master Goes to Sea.

EDITORS PRESS:—Mr. Johnston and I left home on the morning of the 23d of May, for a trip to the Sandwich Islands. After a night's rest in San Francisco, and a few hours spent in attending to business, we went on board the steamship Australia, and found it packed with people. We could not tell who was bound for the islands of the sea and who, at the call of the bell, would step ashore to watch the steamer carry their loved ones out into the bay and through the Golden Gate on the deep, blue sea.

The Masonic excursion party, of which we were a part, had hoisted on the stern a lovely banner of blue silk, bearing the Grand Worshipful Master's emblem. This beautiful flag, with its golden fringe, was presented to the Master by Mrs. Croly, of Sacramento, and then carefully put away for future use.

The next thing in order was an attempt to eat dinner; but this, to the inexperienced, was somewhat novel. One after another was compelled hastily to seek their staterooms; and I was unfortunate enough to be among the number. The next five days there was nothing new under the sun to see, but much to feel, with one continual rocking and rolling of the boat.

Sunday was regarded as the Lord's day. Notice was given at the breakfast table, and all were invited to meet in the dining-saloon at ten o'clock for divine service. A goodly number responded to the call.

The scenery, though grand in the extreme, was one continuous sameness. The only living things we had seen so far were a few large, dark birds, something like a sea-gull, which followed the ship constantly, to secure such morsels as were thrown overboard.

On the sixth day a few flying-fish made their appearance. By this time seasickness had almost all gone, passengers had got acquainted with each other, and became quite jolly. The Masonic members were called together frequently, their business seeming to be, as Nasby says, to "pass resolutions like anything." However, they put in a good deal of time in preparing toasts, to be offered and responded to at the dinner hour by chosen persons. It fell to the Worthy Master to respond to the toast of "the Grange and Farm." It should have been simply Grange, for this is farm.

Monday evening's dinner was the best effort in that line, and festivities were more indulged in than at any other time during the trip. This was the last evening out—next day we would take our lunch on shore, in the city of Honolulu. Shortly before dinner, the members of the Eastern Star were called together to draft resolutions expressing their sentiments. Some of the ladies responded to some of the toasts. (After about two hours and a half spent in eating and talking, drinking and talking, I am very glad that a toast can be just as well drank with water as with wine.) Our clever Commander, the Crew, the Masons, the Eastern Star, the Grange, and last, but not least, California, were toasted. The honor of responding to that was given to the Worthy Master also. The festivities closed by all rising, joining hands and, in concert, singing "Auld Lang Syne."

The twilight hour was usually spent in promenading the deck. A little device was gotten up early in the voyage for the amusement and entertainment of the passengers Two boxes were prepared by placing in them slips of paper, on each of which a number was written. One box was for the ladies, the other for gentlemen. These boxes were set near the door, and as each one passed out he or she was requested to take a slip. After reaching the deck each one was to find the corresponding number, and they should be partners for the next 15 minutes. In this, as well as in the hospital corps, I was among the unfortunate—or perhaps it was fortunate for me, as I had little desire to walk the deck of the rocking ship—that my number (I mean the one corresponding to it) was always left in the box; so if I did not get pretty well acquainted with at least a few of the gentlemen it was not my fault.

We all felt happy at the thought of seeing land, the beautiful land that would be in sight by daylight. Several hours out, our boat was slowed up in order to make the landing at the appointed time. A pilot was sent out to meet the steamer a short distance from the shore. It contained 20 men—some Masons of prominence—to extend a welcome to the party. The wharf was covered with humanity of all shades of color. The King's band was there, and when our line touched the wharf their sweet strains of music cheered each heart as we stepped ashore. Their music is charming indeed, as many Californians can testify from what they heard at the Conclave in S. F. We were only too glad to avail ourselves of the carriages which we found awaiting to convey us to our hotel. More anon. E. S. J.

Hawaiian Hotel, Honolulu, June 7, 1887.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

IT has been said that our cities are the storm center of our country. They are the starting-point of all the evils that threaten our land to-day. In them are found Anarchists, Communists, Nihilists, and all the other importations of mischief from foreign countries. The fact that the cities are growing much more rapidly than the whole population is full of significance, and should attract the attention of our farming population, for it is they who must bear the final and heaviest burdens that must surely come if, when "threatening perils wait," they are not promptly met and averted. In 1790, one-thirtieth of the population of the United States lived in cities of 8000 inhabitants and over; in 1800, one-twenty-fifth; in 1810 and also in 1820, one-twentieth; in 1830, one-sixteenth; in 1840, one-twelfth; in 1850, one-eighth; in 1860, one-sixth; in 1870, a little over one-fifth; and in 1880, nearly one-fourth. From 1790 to 1880 the whole population increased twelve-fold, the city population, eighty-six-fold. From 1830 to 1880 the whole population increased a little less than four-fold, the city population, thirteen-fold. From 1870 to 1880 the whole population increased 30 per cent, the city population 40 per cent. During the half century preceding 1880, population in the city increased more than five times as rapidly as that of the village and country. In 1800 there were only six cities in the United States which had a population of 8000 or more, In 1880 there were 286. These figures are from the U. S. Census reports and should set us to thinking.

WE have spoken of the evils in our cities as of foreign importation. The thrifty, moral, law-abiding emigrant is, and always has been, welcome to our shores, but as a rule he does not remain in the cities. The bad element centralizes in the cities.

A FEW more figures to think about. Our 50 principal cities contain over 39 per cent of our entire German population, and over 45 per cent of the Irish. Our 10 larger cities contain only nine per cent of the entire population, but 23 per cent of the foreign, while a little less than one-third of the population of the United States is foreign by birth or parentage. Sixty-two per cent of the population of Cincinnati are foreign, 83 per cent of Cleveland, 63 per cent of Boston, 88 per cent of New York, and 91 per cent of Chicago.

THE figures in the above items are given and will be followed by others to afford Patrons some light upon a question that should have a thorough discussion in all our Granges at an early day, viz.: Should the indiscriminate landing upon our shores of hundreds of thousands of all classes of foreign emigrants be in some measure restricted, with a view to the future peace and prosperity of our country?

A CORRESPONDENT of the Texas *Farmer* writes as follows: "For the past six years I have been only a spectator. I have looked down upon the Grange from aloft, as it were, and with more than ordinary opportunities for observing its effects—its successes here, or its partial failures there. I have not seen these through the clouded glasses of prejudice, nor those magnified by an intense enthusiasm. I have been somewhat silent, but always keenly interested in every move the Grange has undertaken for ameliorating the condition of mankind. And when I see it has taught us that our neighbor has some rights which we ought to respect; when I see neighborhoods brought into closest social relation through the instrumentality of the Grange; when I see better farmers and better farming as a result of Grange teachings; when we find educated and refined gentlemen and ladies forming the great rank and file of those who honor farming by being farmers; when we see agriculturists more fairly represented in the halls of our Legislatures, and needed legislation coming in answer to the demand of our Order; when we look about us and behold the shackles of ignorance broken, and superstition driven from our land, I am ready, with my brothers and sisters, to exclaim: The Grange, as the farmer's friend, is the grandest success of the nineteenth century!"

WM. SAUNDERS, one of the founders of the Grange, says the first duty of an organization is to educate its members to a true knowledge of their position as a part of a whole which must work harmoniously. Not until its members have become thoroughly impressed with the fact that unity of action cannot be acquired without discipline, will they have learned that one of the first duties of members of an organization is to see that discipline is rightly enforced. Before any organization can work effectively, its members, individually, must be intelligent in regard to the nature of the question upon which they may be called to give an opinion, and ever bear in mind that they should take a sincere interest in carrying out the minutest details of all duly prescribed plans, rules or laws.

THE cause of dormant Granges is not any organic weakness in the laws and principles of the Order, but a lack of proper observance of these same laws and principles. Nine-tenths of the members of dormant Granges will say "the fault is not in our stars but in ourselves."—*Rural Vermonter.*

PROGRESS.—One hundred and twenty-three new Granges have been organized in the United States so far this year, against 91 for all of last year.

RETURNS to the Secretary of the Maine State Grange, so far this year, show an increase by initiation of nearly 900 members.

GENERAL DEPUTY J. T. EATON, of North Carolina, has reorganized 11 Granges this year with a membership of over 500, among which are Palmetto, No. 120, with 72 members; Union, No. 199, with 80 members; Lenoir, with 83 members. Deputy National Lecturer J. N. Lipscomb is to give North Carolina a series of meetings soon.

MOLINE GRANGE, No. 248, Michigan, has recently taken in four new members. They are two men and their wives. How appropriate for man and wife thus to go together to enjoy the blessings of the Grange.

ALEWIVE GRANGE, Kennebunk, Maine, increased its membership 63 last quarter.

> Calm words, great thoughts, unflinching faith
> Have never striven in vain;
> They've won our battles many a time,
> And so they will again

The New Crusade.

Henry George is making a prodigious effort to popularize his scheme to banish the woes and ills of mankind by placing all taxation upon the land. His paper, the *Standard*, comes to us every week heavily freighted with elaborate editorials and ringing speeches. Societies are organized, money is flowing in and missionaries are sent out to preach the gospel of the new crusade. The good Dr. McGlynn has gone into the movement with a zeal that the pope, cardinals and councils cannot intimidate. Rev. Hugh O. Pentecost, pastor of the Belleville Avenue Congregational church, of Newark, said at the Academy of Music, in New York, the other evening: "We are going for the New Jerusalem. Why, under the sun, do you pay taxes on everything you use, when you might just as well put them on the men who own the land? Why do you pay ten cents for a cigar, when you might just as well get it for five? Why do you pay $25 for a suit of clothes, when you could have it for $12.50, and bigger wages to buy with? Why do you pay taxes for your carriage and your horse and cow, and dog and billygoat, when you might just as well take all that tax off and shift it on to the land?"

This mode of bringing in the New Jerusalem was greeted with an uproarious shout, but it certainly looks like an unjust and inequitable discrimination between property-owners. According to this theory, if A earns $5000 and expends it in purchasing a herd of Jerseys and Durhams, his property should not be taxed, as that would discourage enterprise; but if B earned the same amount of money and laid it out in a piece of land to build a homestead upon for his wife and children, his land must help carry the burden of the Government. A sporting millionaire may put all his vast wealth into blooded horses, and travel from turf to turf, and sweep the pools, and pay nothing toward the maintenance of schools, hospitals, asylums and the like, while a poor clodhopper, whose whole property is a five-acre potato patch, staggers under a load of taxes. Is not this discrimination on the products of one's industry, and is it not unfair and unjust? It is surely promoting one form of enterprise and discouraging another. As the State protects by its laws both property in things and property in land, each should be made respectively to bear the expenses of maintaining the Government. No law is just that makes the taxes of B's farm protect A's horses, cattle and sheep.

Then this scheme would certainly increase the price of living—the very thing these reformers are seeking to avoid. Nothing can be plainer; just as the importer who pays a heavy duty makes it up in the sale of his goods, so the taxes on the land would go into the wheat, corn and barley it produced. The consumer in the end would have it to pay, and the landowner, instead of being a tax-payer, would become a tax-collector. The poor day laborer would know that Rev. Mr. Pentecost's New Jerusalem had come from the high price of bread and meat.

It is a favorite hobby with Mr. George and his friends to descant upon the miserable condition of the tenant classes in all large cities. No doubt this is a sad state of things, but how can it be remedied by putting all the taxes on the land? Is not that putting the cart before the horse? Look at it; why is it that thousands of poor wage-receivers are compelled to huddle in vile dens and hovels? Owing to high rents. But what makes rents high? The high taxes on real estate. Take an illustration of the way Mr. George's theory would work. We have seen the statement somewhere that real estate now bears about 69 per cent of all the taxes in San Francisco. Whether correct or not, these figures will do very well for illustration of the fallacy of the land theory of taxation. There is some complaint of bad tenants and high rents. Now how is this state of things going to be improved by adding the 31 per cent now taxed on things to the burden on the land? This is exactly what Mr. George contends for. How would it work? The landlords would charge it upon their renters and their condition would become just 31 per cent worse than before. There may be a mote in our eye somewhere, but the whole thing looks like a scheme to make the rich richer and the poor poorer. In the very nature of things, if land must bear the whole expense of the Government it would be taxed out of the hands of the poor into the hands of the rich. The homestead would sink out of sight and the landlord become monarch of all he surveyed.

Land monopoly is a gigantic evil, and it would certainly be a great blessing if some just means could be devised for a more even distribution of the soil. We wish every man had a good wife, nice children, and could sit under his own vine and fig tree. But as a means of driving out laziness, shiftlessness, drunkenness and vagrancy, Mr. George's theory has just about as much relation as the Queen's jubilee to the price of sausages. W. M.

ENCOURAGING POMONA GRANGE EXHIBITS.—The San Joaquin county supervisors last week appropriated $300 to assist the Pomona Grange in making an exhibit of county products at the State, Mechanics' and Stockton fairs. The authority for the appropriation is the amendment passed at the last session of the Legislature, which authorizes Boards of Supervisors to expend $1000 per year in advertising their respective

counties. The Stockton *Independent* noticing this action, remarks that the Grangers made an attractive display at last year's Sacramento and Stockton fairs, but this year they intend to make a larger exhibit of the county's productions, and believe that it will be an excellent advertisement for the county.

OREGON PATRONS, too, enjoy picnicking in the season, and the *Willamette Farmer* gives notice that the Annual Grange picnic, under the auspices of the Linn County Business Council, will be held at Jefferson, on the south fork of the Santiam river, June 23d to June 25th. Hon. W. Cyrus of Scio has been appointed president, and Hon. Chas. Miller of Jefferson marshal for the occasion. Eminent speakers from different portions of the State will be present and a large attendance is promised.

EDEN GRANGE holds a special meeting today at Haywards—for work in the first and second degrees, we suppose. Next Saturday they have another Harvest Feast and instruct a good class in the fourth degree. Temescal and other Patrons are invited yet again to participate in the good work and refreshment. The way Eden Grange is forging ahead and doing up business before harvest affords ground for congratulation from all Grangers.

BRO. NELSON CARR, with Sister Carr, of Bennett Valley Grange, expect to visit Temescal Grange, Oakland, this afternoon. We hope other Patrons attending the Spiritualists' camp-meeting may also be present. Bro. and Sister Carr are charter members of the State Grange, and have served long and faithfully both as officers of State Grange and in their own Grange ever since its organization.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

BAYSIDE GRAIN.—Haywards *Journal*, June 11: About the first self-binder started cutting grain was on Peter Mathesen's place, below San Lorenzo, Monday. In this section the early sowed grain will turn out well, but many late-sown fields, especially near the bay, will not make much of a showing. The damage was done by the recent hot weather. In working the land along the bay, a farmer takes big chances in getting his grain in late. Along in May and June the salt underneath soon dries up the moisture, and when a hot wave comes it fixes it. Peter Mathesen has been farming close to the bay for the last 18 years. He had his grain in early this year, and claims to have the heaviest crop raised for years.

Fresno.

SERICULTURE.—*Republican*, June 10: On Monday last four barrels of silk cocoons were shipped from Fresno to S. F.—the first shipment of any size, we think, from this valley—the product of the labor of Mrs. A. B. Babcock and Miss Nellie Robinson, of Central Colony, Miss R. having raised about one-half barrel. Cocoons are quoted in the market at from $1@1.40 ₱ lb., and as the weight of each barrel is about 50 lbs., the ladies will have quite neat little sums to their credit. That the production of silk will continue to increase as a light, pleasant and fairly profitable occupation for ladies and children, we have no doubt, and here in Fresno county the mulberry grows luxuriantly and the silkworm thrives.

EUREKA APIARY.—*Free Lance:* In the extreme west end of Fresno county, 85 miles from Hollister, in the Warthan canyon, is situated the bee ranch of Messrs. Bray & Seacord. It has an area of 640 acres, is well watered, and covered with an abundance of wild buckwheat, Spanish pie-plant, sage, honeysuckle, lilac and alfalfa. These plants make the purest kind of honey. The bees are worked in a very systematic manner, so as to get the most honey in the shortest possible time. Among the buildings on the place are a storeroom, in which the honey is placed ready for shipment, a workshop where all the hives, frames and boxes are put together, and an extracting-room, where the honey is taken from the comb. At present they have 365 stands of bees at work, and in the hight of the season 520 stands. This fall they expect to add 300 more, making a total of over 800 stands. From the 1st of April to the 10th of July, 1886, they took out 55 tons of honey, over one-half of which was extracted. About the last of July, they took out over 3000 pounds more of comb honey. In 1885 they did not do much, owing to the dryness of the season. In 1884 they gathered over 65 tons, about one-half extracted. This year they expect to beat the record and take out 75 or 80 tons. The extracted honey is put up only in 5 and 10 pound cans and is disposed of readily in New Mexico, Arizona, Washington Territory and throughout the East.

Humboldt.

EDITORS PRESS:—Until within the past two days the farmers at Rohnerville and Ferndale, and on the island, have been complaining of a very late and wet spring; in fact, they have been unable to get in their full crops of potatoes. Some have been trying for the past 15 days to make hay, but have not had sun enough to cure it. The crops, however, look finely, so far, and of fruit they will have abundance. Very few trees show any signs of blight, though the curl-leaf appears in some orchards. Farmers in this section do not prune their trees—with one exception, Mr. L. Tower, who is a subscriber to your paper and a very practical orchardist, having spent some years in Lower California. Land is held at fabulous prices hereabout. A gentleman not five miles from Mr. Tower refused $250 per acre for 10 acres, not long since. It is a very black loam. Along the roads wild black, salmon, and thimbleberries grow so thickly that they cover the fences, hiding them from view; and in some places they grow at least 10 feet high. Mr. B. L. Wait has, in my estimation, the best-taken-care-of place it has been my good fortune to see. Everything seems in its place there—fruits, vegetables and flowers. Around Rohnerville the strawberry-fields look splendidly and there are a great many of them. Everything is non-irrigated through the county. All the stock is rolling fat, feed is plentiful and there is every indication of a bountiful harvest. —E. P. S.

ON SOUTH FORK.—Eureka *Standard*, June 2: Mr. Jacobson is now harvesting 75 tons of splendid oat hay. The hay was ripening so fast he had to get a new mower and send it out to save the crop. Potatoes and corn have just been planted; the ground was in admirable condition. There are 400 fruit trees on his place now. The peaches on his place are excellent; the young fruit coming on has been selected with great care. The South Fork section is fine for fruit of all kinds, and we believe this interest will overshadow all others in a short time. A good many new settlers are locating in this particular region who will pay special attention to fruit-growing.

KLAMATH RANGES.—J. H. Laam informs us that very few lambs were saved to the sheepmen this season in that section. The cold storms which prevailed about lambing-time were very disastrous. There was not much loss of old stock, but nearly all the lambs died. Feed now is splendid on all the ranges, and cattle and sheep are in excellent condition. The wool clip will be unusually large. Sheep never carried better fleeces. Some new settlers are coming in and taking up lands about Klamath Bluffs.

Inyo.

WILD HORSES.—*Independent:* For years past a number of wild horses have been seen at different times in Long valley. Recently a party of five or six men followed them a day and a half, and finally succeeded in getting a rope on a young stallion, which they brought into camp, the rest escaping. The only animal branded was an old mare, with the "scissors" iron on her. When ridden the stallion made no effort to buck, but ran for the hills. He got in with another band of horses, and his rider being unable to get him out, they were corraled. The horse, a well-built animal and quite fleet, is being broken by Oscar Hilton.

Lake.

ESTABLISHING A CREAMERY.—W. P. Clendenin, secretary, has furnished the county papers with report of a meeting held at Kelseyville, June 4th, for the purpose of organizing a company to establish a creamery. Thos. Porteus having been chosen chairman and W. P. Clendenin secretary, it was voted that the company issue 100 shares of $20 each, that no one person be allowed to hold more than five shares, and that the organization be known as the Lake County Creamery Company. J. W. Boggs, W. G. Young and J. H. Renfro were appointed a committee to incorporate, to whom the chairman and secretary were presently added. Committees were also appointed to circulate subscription lists, and to secure information as to plans and methods of running a creamery. Another meeting will soon be held.

Los Angeles.

VEGETABLES GOING EAST.—Florence telegram, June 10: Porter Bros. yesterday loaded 12 cars with potatoes at this place, which, with five cars in Los Angeles, will start for Denver, Kansas City and Chicago over the Santa Fe road, this morning, as a California vegetable train. Two of these cars are loaded with tomatoes and cabbages.

FOOTHILL FRUIT.—Orange *Tribune:* A branch of a gooseberry bush, grown at the ranch of Mr. Shrewsberry, in the Santiago canyon, is as full as it can hold of very large and fine berries. Currants, gooseberries, blackberries, etc., flourish in that soil and altitude. Fine specimens of orange trees also can be seen there. We have not seen Mr. Shrewsberry's, but can testify that at Mr. Joplin's place, four or five miles away, and at about the same altitude, we saw some oranges as clean, large and finely flavored as ever grew in Riverside.

Sacramento.

THEY ARE CHEAPER NOWADAYS.—Sacramento *Daily Union*, July 30, 1855: J. R. Ray, of No. 70 J street, presented us with a basket of large, luscious free-stone peaches yesterday. The specimens of this delicious fruit grown on a ranch some 15 miles below the city are fully equal in appearance and flavor with any we have yet seen in the State. A few more peaches are for sale at the above establishment at the low price of $1 each.

Marin.

A HOARD OF HONEY.—San Rafael *Journal:* Col. Sontag, who lately moved into the Orr house, was astonished during the late warm spell to find his eaves dripping honey. The bees seemed to come from the kitchen roof, and on taking off a board a compartment was found about 10 feet long by 1 to 2 feet square, packed solid with honey. Col. Sontag thinks that more than 100 pounds was taken out. His tubs, pails and bowls were all monopolized by the find, and they are having a very sweet time at his house. Immense numbers of bees were found, though the place was so filled with comb that ingress was nearly shut off. As it was impracticable to save them, the bees were killed as far as could be, but there are enough stragglers left to make the neighborhood uncomfortable.

San Bernardino.

CHINO RANCH TO BE SUBDIVIDED.—San Bernardino *Index*, June 11: The great Chino ranch, comprising some 50,000 acres of choice land, lying south of Ontario and Pomona, and owned by Richard Gird, is being surveyed and will soon be put upon the market in 10, 20 and 40-acre tracts. Mr. Gird retains about half the ranch, which will not be sold at present. The land to be subdivided consists of the bottom-lands lying to the north and east, the soil of which is moist, rich and adapted to agricultural products. The prices will probably be low and within the reach of a large class of people who find land in the majority of places too high-priced for them. The Pomona & Elsinore railway, of which Mr. Gird is president, will cross the ranch, giving good communication with the outside world.

San Joaquin.

IRRIGATED WHEAT.—Lodi *Sentinel*, June 11: About five weeks ago Messrs. Lawrence and Hutchins started their pump for the purpose of showing what might be expected from their irrigation project. At that time the ditches which had been constructed gave way and the water was turned into a field, a small portion of which was thoroughly soaked, and the crop thereon increased 100 per cent. Mr. Lawrence says that had the whole field, 160 acres, been irrigated in the same way, the crop would have been benefited to extent of $1000. The cost of irrigating that amount of ground would not exceed $100.

MOKELUMNE CANAL.—Lodi *Sentinel*, June 11: Thursday afternoon the controlling interest in the property of the Mokelumne Ditch & Irrigation Co. was purchased by E. A. Beardsley, Chas. W. McMaster, J. M. Logsdon and E. W. Fairchild, capitalists from Southern California. The consummation of this sale, which has been anxiously looked for, is hailed with delight by our people. Hon. B. F. Langford is the only one of the old directors who did not sell, he being ready to put up his share of the capital required to put the property in running order. The dam, which is substantially constructed, will be raised, and this will cost in the neighborhood of $5000. About $20,000 will be required to conduct the water from the dam to Bear creek, a distance of eight miles, from which place 100,000 acres can be irrigated. Over 76 miles of good canals and ditches are already constructed, and the interested parties assert that by next season they will be prepared to run water on nearly every acre of land in this section of the county.

Santa Barbara.

MUSTARD.—*Independent*, June 11: Thos. H. Hicks, just in from Lompoc, says the mustard crop will be the heaviest known for years, and that several farmers have already contracted their crop to San Francisco merchants at the rate of three cents per pound.

Siskiyou.

MULE-BREEDING.—Marysville *Appeal*, June 10: C. B. Boyce's range on Butte creek is partly in Siskiyou county, Cal., and extends into Oregon. In conversation yesterday, E. C. Hart, agent for Mr. Boyce, said that Boyce is the largest mule-raiser on the coast. His range embraces 5000 or 6000 acres under fence, and thousands of acres of Government land are also grazed by his stock. There are now about 3000 head on the range. There is money in raising mules, which bring $110 or $115 when three or four years old. There is more profit in mules than in horses, Mr. Hart thinks, but the proportion of mule colts is smaller than that of horse colts. From 100 mares the number of mule colts would be from 60 to 75, while of horse colts the average would be 80 or 90. On the other hand, mules can be sold at an earlier age than horses, need comparatively little breaking and are hardier, doing much better when snow is on the ground than horses. There are nine Kentucky jacks on the Boyce range, whose cost was from $1500 to $3000 per head. The stock raised is sold throughout the coast.

Sonoma.

SPRING CLIP.—Santa Rosa *Democrat*, June 11: Ex-Sheriff Bishop, just in from his mountain ranch, states that the quality of spring wool in this county is superior to any he has ever seen. Feed has been unusually good, and none of the ranches in Northern Sonoma are overstocked with sheep. The wool is clean and of remarkably strong staple. The shearing having been done before the grease rose in the wool, makes from a half to a pound's difference in weight to the fleece. George Jacobs, who is on the Geyser ranch, east of the Russian River valley, sold his spring clip of wool Saturday last to a Sacramento buyer for 22 cents per pound.

Stanislaus.

THE FIRST WHEAT.—Modesto *News:* Probably the first wheat of the season from this county was shipped from the Keys' Switch warehouse on Wednesday last for Port Costa. The wheat was cut from the summer-fallowed land of L. W. Hickman, on the Lide ranch. The yield per acre is 21 bushels. Mr. Hickman is the fortunate owner of 1150 acres, which will all yield equally as well, besides about 2400 of winter sown, which is estimated to yield 10 bushels per acre.

Tehama.

IRRIGATION ON THOMES CREEK.—Red Bluff *Sentinel*, June 11: W. H. Bahney, Dr. Westlake, and John Gleason have almost completed a large irrigating ditch running through their farms on Thomes creek. The ditch commences at the forks of the Tehama and Corning wagon-roads, on George H. Flournoy's farm, and runs a distance of about 3½ miles. It is eight feet wide at the top and four feet wide on the bottom, and will carry sufficient water to irrigate between 2000 and 3000 acres. Mr. Flournoy thinks the ditch will be completed this week, when the water will be turned into it, to test the strength of the embankments. Mr. Gleason has about 50 acres of growing orchard, and he and Mr. Bahney and Dr. Westlake will plant out more next winter and spring. Fruit trees and vines grow well and produce excellent fruit without irrigation, in any part of Tehama county, but water judiciously used stimulates their growth and increases the size of fruit.

Tulare.

THINNING FOR THE CANNERY.—*Delta*, June 9: "What shall be done with the boys?" For several days past Mr. Wheeler, manager of the cannery, has had boys at work thinning the fruit in Mr. John O'Connor's orchard. He says the labor is more tractable than men or Chinese, and quicker. He complains that many who have spoken to him about the cannery buying fruit have failed to attend to thinning out the surplus fruits from their trees, and in consequence they will have on their hands trash which the combined skill of canners and driers could not make presentable. The cost of thinning is about two cents to the tree, and this investment will return dollars of good salable fruit. It is not too late now to do this work.

ALILA THRIVING.—W. W. Hughes, of Alila, reports his section of the country prosperous and progressive, and claims at least a half-crop from the grain-fields in that vicinity. This may be a surprise to those who knew that broad, treeless expanse of plain a few years ago when a few sheep-herders' cabins were the only human habitations to be met with in a day's ride. Now a house—a *home*—is to be seen on nearly every quarter-section of land, surrounded by well-cultivated fields.

Yolo.

COCOONS.—Woodland *Democrat:* We have at this office several fine silk cocoons, raised by Mrs. Dr. I. N. Hodgen at her residence. They are healthy-looking and full as large as any displayed at the State Fair. Mrs. Hodgen has raised at least half a bushel, all of which are as fine as the ones on exhibition. She feeds them on common mulberry leaves and has never had the least trouble with them. The matter of raising cocoons should be looked into by the ladies of this county, as it is an easy and elegant mode of gaining a livelihood.

Yuba.

BIG HOP-FIELD.—Marysville *Appeal:* D. P. Durst and his son M. H. have 80 acres each in hops near Wheatland. They expect a yield of from 2200 to 2500 lbs. per acre. They employ white labor, so far as it can or will do the work, and also some Chinese help. The senior Durst says that active boys are much preferred to Chinamen.

A PROMISING OUTLOOK FOR THE STATE FAIR. The *Record Union* of Tuesday says that the prospect for a successful State Fair was never brighter than now. The greater part of the cattle and horse stalls are already engaged, and the accommodations of the society will probably be taxed to their utmost. Arrangements are in progress to extend present accommodations so as to afford more space for all kinds of live-stock and enable the display of all exhibits in the best manner possible. From present indications, the people and exhibitors of the interior propose to take more active interest in the coming session of the State Fair than ever before. Applications for space in the Pavilion are also being received quite rapidly. The plat of the halls is now ready for examination, and evidently no space will remain unoccupied this year.

FRUIT PROSPECTS.—The various reports, which reach him from different quarters of the State, lead Sec'y Lelong, of the State Board of Horticulture, to the following general estimates: Apples promise a fair average. Bartlett pears will be about half a crop; Winter Nelis almost a failure; other varieties good. Apricots, as a whole, nearly double the average. Cherries, rather scant. Plums and prunes, decidedly light. Peaches, very heavy. Raisins and table grapes very good indeed, the damage by frost having been overestimated.

A GOOD NUMBER.—The *Overland* for June has for its leading article an illustrated sketch of the Santa Clara valley. The engravings are from photographs and finely executed. Their artistic beauty is thus accompanied by actual truth to the scenes presented, which is very important. The literary contents of the number are quite up to the standard.

THE APRICOT.—The June meeting of the State Horticultural Society will be held at Irving Hall Parlor, No. 139 Post street, on Friday, June 24th, at 1 P. M. The subject for discussion will be "The Apricot in all its Bearings." All interested in horticulture are invited to attend.



Her Choice.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

She had of ardent suitors, four,
But only one did wed,
And he was neither less nor more
Than none, compared with Ned,
Or me, or Harry, either one,
For gallantry in courtship;
And yet her gentle heart he won,
And did it without hardship;
As tests we suffered, we who took
Her crushing answer "no,"
She said each soul was like a book,
And Jack's as pure as snow.
This was her explanation good,
And yet we fought her verdict.
Though true, we'd have it understood,
Each was a misjudged convict—
The martyr of some unknown cause,
Some groundless prejudice,
And each our hearts and moral laws,
More perfect were than his.

Santa Barbara.

A Story of the South.

Under the above title, we find in an exchange an interesting story, too long for our columns, from which we take the following:

In a Southern State, what the negroes called "De Bad Gang," with headquarters at a cross-roads whisky-shop, were in the habit of riding over the country nights, committing various outrages. Finally, they killed an old negro and others. The negroes became so alarmed that they hid nights in the swamps. The neighboring planters and good citizens offered $500 reward for detection of the criminals. But the outrages still continued. One night a colored boy overheard them plan to hang a colored preacher who had publicly denounced them. The boy hurried through the woods to warn the preacher, and here we begin the story:

Bursting into the cabin just as the venerable old man and his wife, Aunt Fay, were in the act of kneeling for their evening devotions, he startled them almost out of their wits by screaming: "Oh, unc', yuh's gone! Yuh's a los' man! De Gang's a comin' to kill yuh, suah! Oh, oh, unc', unc'!"

"Wut's de matter wid yuh, chile?" cried Aunt Fay, catching Lafe by the arm. "Is yuh done gone crazy?"

"Oh, Unc' Tobe," said Lafe, excitedly, "I'se done seen de 'Gang' up de road—tousans ob dem! An' I heerd 'em say dey was comin' heah to hang yuh? Oh, dey's comin', dey's comin, dus back dar!"

"Yuh's suah, chile?" queried Uncle Tobe, earnestly.

"Es as suah as I'se 'live!" replied Lafe.

"Oh, fadder!" cried Aunt Fay, wringing her hands, "run to de swamp, fadder, run! Oh, Lordy sabe us from dis wicked world! Run, fadder, run, run, run!"

The old minister drew himself up proudly. "Run, an' lebe yuh heah to be 'bused by de Philistin? Nebber! I trus' myself in the good Lord's han's. He sabed de Hebrew chillun, an' Jonah. He sabe all dat ax him prop'ly. Les us pray," and down the trusting old couple knelt, while Uncle Tobe poured forth a simple but eloquent appeal for succor in their present time of need. Lafe quietly slipped outside to see if the "Gang" were in sight. He had decided that the best plan would be to run for the plantation, nearly two miles distant, and give the alarm. A short, wide sack, half full of sweet potatoes, the donation of Uncle Tobe's former master, stood beside the door. Lafe picked it up, carried it to a thicket near by and emptied it. "Dey shan't spoil dem, anyway," thought he. Then he glanced up at the bright, silvery moon, and apparently made an important discovery, for he suddenly ducked his woolly head, ran a few steps, and stood like a statue fully ten seconds.

"Je—ru—sa—lim!" he slowly ejaculated. Stood a few moments longer, slapped his hands together, and exclaimed, softly, "I does it." His mouth spread from ear to ear, and he jumped up and down and turned a handspring. Three feet above his head hung the thing that had inspired his peculiar antics. Catching up an old stool, Lafe placed it in position, mounted it, took out his well-worn but sharp pocket-knife, and with the utmost caution and bated breath cut the thing loose. Another moment and he had dropped it into the sack and safely closed the mouth by twisting it like a rope. Then he drew his prize into the cabin, closed the door and bolted it just as the first of the "Gang" rode up. Uncle Tobe heard them, and quietly arose. "Unc' Tobe," said Lafe, holding to his sack, "yuh jus' lef 'em ter me. I take keer ob dem dis time."

"No, chile," replied Uncle Tobe, advancing toward the door, "let me speak wid 'em."

"Go back, go back!" cried Lafe, frantically waving his hands and excitedly rolling his eyes. "Don' cum near, don' cum near. Auntie, blow out de candle. Unc', don' yuh say one wud. I done talk wid 'em. I done tell 'em *somefin'!*"

Aunt Fay blew out the light, and in silence and trepidation the three awaited the coming of the evil-minded rabble outside.

The "Gang" dismounted and secured their horses, then approached the cabin door in a body.

"Uncle Tobe!" called out the leader.

"Wut yuh want?" answered Lafe.

"We want old Tobe. Come out of thar, Tobe; we want ter tickle yer eah."

"Wut fur yuh want Tobe?" asked Lafe.

"Open this doah."

"I'se afraid," replied Lafe, unwinding the top of the sack.

"If yer don't open it, we'll bust it open fur ye."

Lafe drew out the pin, jerked open the door, flirted the sack in their faces and threw it out, then instantly banged the door shut again and held it.

A volley of terrible oaths, quickly succeeded by yells of pain and dismay, followed this action, and soon there was a regular stampede of both men and horses.

"Chile, chile! wut yuh gone done?" cried Uncle Tobe, apprehensively.

"I done punish de 'Gang' wid de good Lord's weepins!" answered Lafe, triumphantly.

"Wut did yuh done punish 'em wid, chile?"

"Wid a big nes' o' 'ornets, unc'!"

"De good Lord hab done sabe us; bress His name!" cried Uncle Tobe, reverently. "Let us gib tanks fur our deliberance." And as they knelt, the devout old man offered up a heartfelt prayer of thanksgiving and praise. Immediately afterward Lafe made a run for the plantation. Arriving there, he lost no time in telling his employer of what had occurred. That gentleman promptly sent a guard of six trusty stalwart men down to Uncle Tobe's cabin to protect him from any further annoyance during the night.

Early the next morning, accompanied by Lafe, he drove to the village and notified the authorities of what had taken place. To say that the story created a sensation does not half express it. It created the greatest excitement ever known in that section, and Lafe was the hero of the hour. The Sheriff determined to bring the "Gang" to justice.

He first arrested the young son of a leading planter, whom he found with his face badly swollen from the hornet stings; and having a clear case against him, advised him to confess and turn State's evidence. In this he was ably seconded by the young man's father, who was terribly shocked by his son's complicity in such an affair.

The result was, nine men were bound over to appear at the next term of court, 14 precipitately left the State, the old "whisky-shop" was razed to the ground, and the "Bad Gang" was utterly extirpated.

At a meeting of the leading citizens it was unanimously decided that Lafe Bobbs had, by his stratagem, exposed and broken up the "Gang," and was entitled to the reward of $500 offered by the planters. The money was duly paid over, and Lafe invested it so wisely that to-day he is one of the wealthiest and most respected colored men in that portion of the State.

An Extra Motherly Hen.

A gentleman living in the outskirts of this city claims to have a hen that has taken a most peculiar freak. Some time ago a cat owned by the gentleman took possession of this hen's nest, and gave birth to several kittens. The hen upon returning saw what had happened and immediately drove away the intruding pussy. Her motherly instinct would not permit her to see the little kits suffer, so she assumed complete charge of them. The mother cat demurred to this, and attempted to regain possession, but a few fierce blows from the hen's beak and wings caused her to beat a retreat each time. When the hen is away the cat will venture to fondle her little ones, but when Mrs. Biddie makes her appearance, Tabby takes her departure, reluctantly. The hen still holds the fort, and probably will until she feels it convenient to surrender.—*Santa Rosa Republican.*

A WARNING TO NIBBLERS.—A young man in Healdsburg, the other day, stepped into a business house, and seeing some wheat lying on the counter, picked some up and ate it. Noticing a peculiar taste left in his mouth, he turned to the proprietor and inquired the cause. Imagine his consternation when he was told that the wheat had been soaked in a solution of poison for the purpose of killing squirrels. Emetics were quickly administered and the young man's stomach relieved of its dangerous contents before any serious results were experienced. This should be a warning to all those who are in the habit of tasting things carelessly.

"AM I MY BROTHER'S KEEPER?"—A well-known clergyman's little daughter had just been put to bed and upon the stillness comes a tiny voice in the nightly prayer. Then, silence, soon broken by these words: "And, dear Lord, this afternoon I saw out upon the cold sidewalk a poor little girl, and she had no shoes or stockings on—and—and" another silence as though staggered by the immensity of the problem—"it's none of our business, is it, God?"

Tobacco.

EDITORS PRESS:—Tobacco was unknown to Europeans until after the discovery of America. Some sailors having been sent ashore by Columbus in the West Indies, were surprised to see the natives of the island puffing smoke from their mouths and nostrils. This, they afterward learned, was the smoke of the dried leaves of tobacco.

The habit of using tobacco is fast gaining in young America. How strange that the glories of tobacco were never discovered till the last of the 15th century—about 1496! The lovers of the weed ought to raise a monument to the Spanish monk, Romanus Paine, whom Columbus met on returning from his second voyage to America and who first brought its virtues to light. This monument should be built of polished marble, laid in a cement of tobacco, fresh from the vat of the mills that grind it. How strangely blind have some been to its real benefits! In 1590 a Persian king prohibited its use. In 1610 a Turk at Constantinople, being found smoking, was led through the street with his nose transfixed with a pipe as punishment. In 1661, in Berne, Switzerland, in the police regulations after the form of the ten commandments, the one against smoking tobacco stood next to that which said: "Thou shalt not commit adultery." In 1690 Pope Innocent XII renewed a bull, issued at a former period by Pope Urban, which excluded all tobacco-users from the church.

You will see by this short history that tobacco is making rapid strides, being now found in the mouth of almost every man, from youth to the most advanced age.

The love of strong drink, after that thirst is formed, fastens with inveterate grip on the spirit of the man. It is one of the most enslaving of all hurtful appetites. Yet more potent and enslaving is the passion for tobacco. It is a lust not so noisy but more enticing and irresistible. It clutches its victim with greater firmness and holds him with a more determined and unyielding grasp. There is no other idol-god that requires so much to be laid upon its altar in the way of time, of money, and of physical and moral energies.

Some medical quacks have prescribed this dreadful poison to preserve the teeth, and I venture to say that it has worn out and destroyed more teeth, ten to one, than it ever preserved. As illustrating this position, and what came under my own observation—a youn gish-looking man who had been a tobacco user from early youth, and whom I interrogated as to why he used it, replied that he used it to preserve his teeth; and being asked if it had the desired effect, his answer was no—that his teeth had all been extracted within the last year—and yet he kept on using the weed to preserve his teeth! I now remember hearing of but one remarkable instance of its wonderful preservative properties, and that was an unfortunate shipwrecked sailor who happened to fall into the hands of cannibals, and whose whole system was so saturated with tobacco that his body could not be eaten—whereby the cannibals were disappointed.

If tobacco be an antidote for many of the ills that flesh is heir to, why not educate the young ladies to masticate the weed, till its delicious juices run down each corner of their pretty mouths in beautiful profusion? How pleasant it would be for a fastidious young gentleman to salute his lady-love and bear back the impress of such salutation, the delicious essence, upon his own lips!

The terrible ravages which tobacco is making on the bodies and minds of the young men seem to draw the attention of medical men in various parts of the world. No one conversant with disease can doubt that excessive smoking, more especially in the case of young men, must be highly injurious. Its effect is to depress the circulation, the heart becomes weak and irregular in its action, and the pulse is scarcely to be felt; the victim becomes weak, irresolute and nervous, his appetite fails, and his mind is filled with imaginary evils. LESTER CROSS.

Stockton, June, 1887.

THE MODERN PRODIGAL SON.—No, my son, it isn't that the world has grown hard-hearted; it isn't that we aren't just as glad to-day to see the prodigal come back, and just as lovingly anxious to welcome him home as ever was anybody in the fifteenth chapter of Luke. It is the manner in which the prodigal son of 1887 frequently returns that throws a wet blanket over the festivities of the welcome. When he comes down the road with his hat hanging on his ear and his hands in his pocket; when he kicks the faithful old housedog as he lounges in at the gate; when he calls his father "Gov'nor" and the hired man "Cul;" when he wants to know "What's for dinner?" before he has been in the house 15 minutes; when he gives his elder brother two fingers to shake and advises him to comb the hayseed out of his hair; when he throws himself into the easiest chair in the house, perches his feet on the window-sill and announces that he'll "take a tub before dinner;" when he comes back with a generally forgiving air of good fellowship about him and tries to make all the rest of the family feel very easy and assured—then it is, my son, that your father longs to run and meet you while you are a great way off and fall upon your neck with a plow-line and welt you into a state of becoming humility and penitence by the time you are able to take off your hat to the bound boy and crawl up the front steps to ask your brother to shake hands with you. Good people are just as glad to-day as ever they were, my son, to see the prodigal come home, but it does rattle them a little to see him come home in a hack and ask them to pay the driver and send for his baggage.—*Brooklyn Eagle.*

Is It Sanction or Restriction?

EDITORS PRESS:—As intemperance among farm hands is seriously detrimental to farming interests, it is but reasonable that agricultural papers should advocate temperance—which I am glad to know you do. And as there is a growing interest in the high-license movement, I have a few thoughts to offer.

I think it unfortunate that the term "license" is applied to our method of taxing the liquor traffic. The idea of giving sanction to such an evil is offensive to many who would otherwise approve of a restrictive tax. Unless the word "license" is construed as having a technical and peculiar meaning in this place, our license system would seem to present some absurdities. As our State never had any general prohibitory liquor law, the license system found the traffic as perfectly open and free and as fully protected as any other business, consequently license could give no additional freedom or protection.

License ordinarily implies removal of restriction, and our license practice seems to be by many so regarded; whereas, on the contrary, it takes away freedom, puts restriction in its place, and charges for it as for liberty conferred. But if that does not look more like getting money under false pretenses than conferring privilege, I mistake its looks. It may be a good thing practically, but, theoretically viewed, I fail to see its consistency. However, some things are much better than they look—let us hope this is one of them. Since license implies removal of restriction, there must be at least an implied restriction to remove before we can apply license.

We find that, under our county government license ordinances, the traffic is disallowed outside of paid-for privilege, and a discouraging price set on it inside; so that, practically, no new privilege is granted the dealer except that of paying for what is not taken away from him. License in this and all other cases is necessarily set in prohibition groundwork.

To deny the right of prohibition leaves no room for license; and to treat our license ordinances as in the main bestowing liberty, is quite unjust. But whether it is the best method of discouraging so great an evil, I much doubt. It looks too much like saying to liquor dealers: "Your business is wrong, but for a money consideration we will allow and protect you in it." That is very different from what we say to the unfortunate wretch who, in the use of his legally provided facilities for drink, gets crazy-drunk, kills his friend, and is told that, drunk or sober, it is murder, and he must hang for it. The real cause of the murder buys immunity, while the full measure of vengeance is dealt out to the effect. Sanction the cause and punish results is the language of such law; but I protest there is rank injustice in it. Would it not be better to say to the liquor dealer: "Your business fills the land with crime and misery, and you must desist or be punished like other evil-doers"?

THOUGHTOGRAPH.

We Beg Pardon.

The PACIFIC RURAL PRESS, California's best exponent of her agricultural interests, in its issue of June 11th, under head of The Dairy, quotes our article on T. L. Walker's dairy, introducing it thus: "The editor of the Antioch *Ledger* recently visited a dairy ranch in *his* neighborhood," etc. Not so, Brother RURAL; the we, us and ours in this case is the first person singular, feminine gender, and belongs to—the *Ledger*.—*Antioch Ledger, June 11th.*

[We beg pardon. We might have known that so good an account was a lady's.—EDS. PRESS.]

Exchanges.

EDITORS PRESS:—Will you please state in your paper that Mrs. H. Frederick, of Ripon, San Joaquin county, Cal., wishes to exchange beautiful stamped pillow-sham pattern, samples of hair flowers, oil chromos, quilt patterns, fancy crochet patterns, dahlia and gladiolus bulbs for sea-shells, star-fish, red or white coral, minerals and petrified wood, accompanied by name and locality, or any curiosities suitable for cabinet.

THE SALOON-KEEPER'S BEST FRIEND.—"See that $500 mirror? See that $1200 oil painting on the wall?" The double-barreled question came from a bartender. "Do you know how we get those things?" he continued. "All from the profits on the sale of whisky. You never stopped to think that a saloon-keeper's big money came from the sale of rye and bourbon. Beer won't buy a $500 mirror. Do you suppose the profits on porter, or sherry, or champagne, would buy a $1200 painting? Not much. It's whisky that brings in the money—rather one-year-old red-rye, with enough prune juice in to give it the color and smoothness of age. Whisky is the saloon-keeper's best friend."—*Chicago Herald.*

His Letters.

Dedicated to the Author of "Her Letters."

[Written for the RURAL PRESS by J. E. TOTHEROH.]

When my heart is sad and weary,
And life's path is lone and dreary—
Ah, alas! so cold and sunless—
Then I, sighing, take his letters,
Every line of which is fetters
Binding faint heart to the fearless,
And I read; and while thus reading,
My lone soul, with anxious pleading,
Launches forth on oceans shoreless.
But, dear lines, my eyes beam brighter,
And my heavy soul grows lighter
As I read: *My love is changeless!*

San Francisco.

NATURE'S MYSTERIOUS PROCESS.—Where the diamond comes from nobody knows. You can no more predict the existence of diamonds than you can the existence of genius, although, to be sure, all diamond-fields to a certain extent resemble each other; and all, borrowing as they do their light from the sun, are found only in warm climates. Nor can you tell where the diamond goes to on combustion. Burn it and it leaves no ash; the flame is exterior like that of cork, and when it has blazed itself out there remains not even so much as would dust the antennæ of a butterfly. If a man has his mysteries, his strange conversions, his going in a sinner, his coming out a saint, so, too, has nature. The philosopher's stone is formed of the vilest materials, and the chimney-sweep is covered with that which, under happier auspices, would be jewels. This mysterious process of crystallization places between two bodies of the same nature a greater difference than between bodies differently composed. And yet not so great a mystery, either, for every year a process is discovered for making diamonds—only somehow the diamonds are never made, or, at the best, so microscopic, and at such an enormous expense, that they are absolutely useless except to gum on cards at the British Museum. In France, they say, a solution of phosphorus in sulphuret of carbon yields minute diamonds, but things are better managed there than here, as has long been admitted.

A CAT AND A MILK-PITCHER.—The following story, by an Indian pupil at Hampton, is taken from the *Southern Workman:* A man, he has one cow and one old cat. One evening he want to get some milk, and he went to that cow. He is milk his cow, but he not get much milk. When the man go through milk, and when come home, that cat come with him. She want some milk to drink, and looked up all the time, but that man didn't want give to him, and that cat want some very much, and cry every minutes mew, mew, and that cat going try jumped up on that man, and holds up his tail and followed that man everywhere the man went. When that man got home his wife took milk-pail and poured in pitcher and put on the table, and that cat is watching all the time. And the pitcher is milk in it, but not much, just half. After she pouring this milk she go in other room, and she heard noise, and she come and see what is making noise, and there was the cat caught her head in the pitcher, and can't get out. After a few minutes he heard something, and he think some body come after him, and jumped up, and that cat come down from that table and cannot take it off that pitcher, and run away with that pitcher, and two boys run after him. Of course that cat can't see anything, so he just keep on running until he got into the water and got drowned, so I guess this cat is dead of stealing.

RATS!—Who says all women are afraid of rats? We know of one who is not, and Mrs. Dr. Newton, of Woodbridge, is the lady. For some time a rat of huge proportions had been the source of considerable annoyance to the members of that lady's household, and successfully evaded all traps and snares set for its capture. One day Mrs. Newton heard a chicken in the yard calling for help. Being always inclined to aid the suffering, she ran to the rescue and found her favorite hen in the clutches of that rat, her old-time enemy. Fully appreciating the imminent peril of the hen, and remembering how that same rat had regarded with disdain all efforts to catch him, she boldly caught the vile rodent by the tail and beat his brains out against a tree. We do not know whether the lady would have served a mouse in the same way or not, but that should not detract from her glory obtained in this single-handed combat.—*Lodi Sentinel.*

THACKERAY'S HATRED OF HYPOCRISY.—Of course in all families the mother is the one to whom the children cling. We don't talk to them, feel with them, love them, occupy ourselves about them as the female does—we think about our business and pleasure, not theirs. Why do I trouble you with these perplexities? If I mayn't tell you what I feel, what is the use of a friend? That's why I would rather have a sad letter from you, or a short one if you are tired and unwell, than a sham gay one, and I don't subscribe at all to the doctrine of "striving to be cheerful." *A quoi bon,* conclusive grins and humbugging good humor? Let us have a reasonable cheerfulness and melancholy, too, if there is occasion for it, and no more hypocrisy in life than need be.—*From "Unpublished Letters of Thackeray," in Scribner's Magazine.*

YOUNG FOLKS' COLUMN.

A Story for Boys.

[Written for the RURAL PRESS by MRS. J. HILTON.]

"Did you ever kill a bear?" I asked one of our wood-choppers the other day.

"Oh, yes—quite a lot of them. The first time I went out bear-hunting, we sighted a bear up a steep mountain-side. After a good deal of climbing I managed to get pretty close to him without being seen. I stood behind a tree and got my rifle into position, keeping my eyes and thoughts on the bear just ahead of me. When almost ready to shoot, I was trembling with excitement, and it took me quite a while to get ready. I became conscious of some one or some thing near me, and, looking around, there stood a half-grown cub. It was reaching out to grasp my coat, and it did get hold of it; but I had sense enough to drop my gun and slip my arms out of the sleeves and grab my gun and leave."

"Did you ever get your coat?"

"The boys found the remains of it that afternoon, when they were hunting for the bears. I did not get over my scare enough to be of any use that day. But the boys got both the bears, and we had a feast of broiled bear cutlets that evening. I killed several bears after that, and I got so that it took more than two bears to make me tremble so that I could not hold my gun still.

"One time we were all called out of camp by some of the town folks yelling 'Bear! bear!' We wanted to know what was the matter. They said that a bear had been at Mr. Brown's hogpen and had stolen one of his pigs. So, as we were out hunting bears, they wanted us to go for that one. Three of our band were good vaqueros, and they declared that if they came across that bear they would 'lass' him. We found the trail and followed it all the morning. Finally we caught sight of him in a narrow canyon. The boys got their riatas all ready and galloped up to Mr. Bruin. We were close behind them, waiting for the fun to commence. When they rushed up to the bear he raised himself up and snarled wickedly. In the meantime the boys had surrounded him, but at a safe distance. We had no dogs with us, but Bruin did not like the looks of so many around him, and he started to lope off; but the three ropes soon brought him to a standstill, and as they were thrown from different directions, they held him pretty tight. Oh, how he did pull at the ropes and snap at them, but at every move he made to bite them he got an extra jerk.

"He was soon too tired to do anything but snarl, and then the boys started him on the back track for camp—one going ahead and pulling, the others bringing up the rear, all of us keeping at a respectful distance, however. It was about four o'clock in the afternoon before we reached camp. We were as tired as Master Bruin, and as he seemed disposed to lie down and not bite the ropes, we proceeded to get our dinner. While eating it, Bill Bowers suggested that they put a bell on the bear and let him go. All took to that idea, and it was speedily done.

"Then came the problem as to who should let him loose. It had taken a good many turns of the riatas to make it safe to put the bell on. But as the bear was somewhat rested and the noise of the bell would be apt to make him extra cross, no one wanted the job of getting the ropes off of him. No one would volunteer, and the ropes had got loosened during the confab and Mr. Bear could not be approached without danger. Bill vowed he would rather pay for all the riatas than shoot the bear, because a lot of the town folks were now at the camp enjoying the sport. After a good deal of maneuvering they loosened all but one of the ropes so that they fell off, and that they cut, and away went Bruin, followed by a parting shout given to accelerate his movements; for what with the bell and the crowd of men, the bear was anxious to leave. We heard that bell several times when we were out—but he never troubled any of the settlers' pigs after that. And he must have frightened away other bears, for we did not bag any more that season."

Los Alamos.

Lillian's Letter.

EDITORS PRESS:—I wish to tell you about the hailstorm that we had the 31st of May on the Cholame Hills. My father, my sister and I had just returned from the postoffice, which is a mile and a half from our home, and had just tied the horses, when it began to hail and rain.

The horses did not know where the queer little pebbles came from, and tried to shield their faces, and at last, becoming frightened, tried to get away; but as soon as they comprehended that papa was unharnessing them they became perfectly quiet.

It only hailed long enough to give the ground a sheet of white, which almost immediately, as if by magic, disappeared; but the rain lasted quite awhile.

We have had for the past three nights regular Eastern thunder-showers, and one night in particular the thunder roared and clashed, while every now and then vivid flashes of lightning would illuminate the sky. It has not as yet rained enough to hurt the hay that has been cut, and we hope that it will not rain any more until it is under cover; and when that is accomplished we care not if it rain 40 days and 40 nights—it being such a dry season that the cattle do not have much green feed to browse upon.

Our handsome dog Prince, that I mentioned in my other letter, is dead. We were so sorry to lose him, he was such a good dog, and we called him our "Little Protector." A few days before he died we were presented with a tiny wee lamb, that looked as though hardly old enough to bleat, but we soon found out to the contrary. It was an odd-looking little creature, and seemed to be all legs. We call her Nannie, and, like Mary's little lamb, she follows everywhere we go. She runs and jumps, and when her front feet touch the ground, up go her hind ones in a playful manner.

Three rattlesnakes have been killed on our place, and one had 10 rattles; but we take long walks and seldom meet with anything harmful. The hills have been blooming with flowers; monolopias, nemophilas, and bloomerias, and many other beautiful flowers; and the most beautiful of all is the calochortus. Some of the hills are fairly purple with godetias. But the floral season is nearly past; but we will hope to see the flowers again next year.

On the hottest day in the month of May the thermometer stood at noon at 97°, and on the coolest day of the same month at noon it stood at 59°. On hot days it is a great deal warmer in the valley than on the hills, while in cold weather it is a great deal colder there.

The weekly coming of your paper is heartily welcomed by each one of the family. Your little 12-year-old friend, LILLIAN HOLLY.

Cholame Hills, June 2d.

GOOD HEALTH.

THE GERM THEORY OF DISEASE.—The theory that many diseases are produced by microscopic germs is generally supposed to be wholly a modern one; but some book-worm has recently unearthed the fact that the first statement of the theory was really published more than 150 years ago, by Doctor Guiffon. In a work by this author, entitled "Origin of the Plague," published in 1721, he says: "Minute insects or worms alone can explain these diseases. It is true they are not visible, but it does not therefore follow that they are non-existent. It is only that our microscopes are not at present powerful enough to show them. We can easily imagine the existence of creatures which bear the same proportion to mites that mites bear to elephants. No other hypothesis can explain the facts. Neither the malign influence of the stars, nor terrestrial exhalations, nor miasmata, nor atoms, whether biting or burning, acid or bitter, could regain their vitality, once they had lost it. If, on the other hand, we admit the existence of minute living creatures, we understand how infection can be conveyed in a latent condition from one place to break out afresh in another."

HYDROPHOBIA FROM MILK.—It has not hitherto been known that hydrophobia may be communicated through the medium of milk; but from the following note from the *Anti-Adulteration Journal,* it appears that the disease may be communicated in this way: A dog belonging to A. J. Hall went mad last week, and among the animals which it wounded in its wanderings about the farm was a milch cow. The cow showed no signs of being affected by the wound. Later, however, the animal began showing symptoms of hydrophobia, and at the same time the farmer's two little children, who had been nourished with the cow's milk, exhibited similar symptoms, and are in a most critical condition, suffering the most terrible agonies. The other members of the family are also ill, but their symptoms are not so alarming, and hope is expressed that they may recover.

DANGER FROM HOUSE PLANTS.—Dr. Saulsbury found malarial fever to be propagated among persons sleeping in a room in the windows of which had been placed a box of earth from malarious soil. House plants cultivated in pots filled with malarious earth are a constant danger. The germs grow luxuriantly in the moisture and warm air of closed rooms. Dr. Eichwald, Professor of Clinical Medicine in the University of St. Petersburg, has given to the public facts concerning a patient of his—a lady with malarial fever—who was easily cured by treatment when confined to her chamber, but who quickly relapsed on remaining during the day in her parlor. The easy cure and constant relapse went on for a long time. At last the doctor, having become suspicious of the flower-pots, removed them from the house, and there was no further recurrence of the disease.

BACTERIA.—It has been estimated that a single cubic inch of space will contain 8,000,000,000,000 of these little fellows, of average size. They also increase, by fission, at the rate of one division every hour; hence, a single one becomes the immediate parent of 16,777,215 every 24 hours, and the causative parent of 32,307,756 individuals in that length of time. Now, as each one of these 32,000,000 will become, during the next 24 hours, the begetter of 32,307,756 individuals, one can get a reasonable understanding of the virulency of some of our infectious diseases where there is a specific bacterium.—*Sel.*

DOMESTIC ECONOMY.

SWEDISH ROLLS.—Seven cups of flour, one pint of milk boiled. When cool, add one cup of butter, one-quarter cup of sugar, one egg, one-half compressed yeast cake. For tea, set them to rise at eight o'clock in the morning. At three in the afternoon, roll them out about an inch thick; put a small piece of butter on one side; fold them in halves; put in the pan a little apart, and let them rise till time to bake for tea.

COCOANUT CAKE.—Two cups of sugar, three cups of flour, two-thirds of a cup of butter, one cup of sweet milk, the whites of five eggs, two teaspoonfuls of baking powder. Bake in layers. Filling for the above cake: Take one pint of sweet milk, half a cup of sugar, one egg, three teaspoonfuls of cornstarch, and cook thoroughly. Stir in this one grated cocoanut, and spread between the cakes.

CHEESE STRAWS.—Take a quarter of a pound of puff paste and a quarter of an ounce of parmeson cheese (or any other good cheese) grated very fine, a little salt and cayenne pepper mixed; sprinkle the cheese, salt and pepper over the paste, and roll it two or three times; cut it into narrow strips about five inches long; bake them in a slow oven and send them up very hot.

RYE CAKES.—Two cups of sour milk; one egg, well beaten; one teaspoonful of soda, dissolved in boiling water; enough rye meal for a batter that will spread easily on the griddle. Mix together the milk, meal and egg, add the soda and beat thoroughly. Bake immediately on a hot griddle, or in gem pans well oiled; if in gem pans the oven must be hot and the cake should bake about half an hour.

CORNSTARCH CAKE.—One cup of butter worked to a cream with two cups of sugar; one cup of milk in which is dissolved one teaspoonful of soda; two cups of flour, in which is sifted two teaspoonfuls of cream of tartar; the whites, only, of six eggs, beaten to a stiff froth. Mix all of these ingredients well, then add one cup of cornstarch. Beat well. Bake in a moderate oven. Will make one large loaf.

SCALLOPED CORN AND POTATOES.—Mix together half a can of each; stew for half an hour with a tablespoonful of butter, a scant teaspoonful of sugar, and salt and pepper by way of seasoning. Put in a buttered dish, strew thickly with bread-crumbs, and dot with bits of butter. Bake for half an hour, and serve hot in the same dish.

POTATO SALAD.—Four boiled pototoes mashed and rubbed through a sieve. Mix one saltspoonful mustard, two teaspoonfuls salt, yolks of two hard-boiled eggs, a few drops onion juice, four teaspoonfuls oil, two teaspoonfuls vinegar and one teaspoonful anchovy sauce. Mix thoroughly with the potato. Garnish with parsley and serve very cold.

TOMATO SALAD.—Cut six ripe tomatoes into slices and remove all the seeds; rub a dish with onion and pour into it a mixture of oil and vinegar (in the proportion of two spoonfuls of oil to one of vinegar), sprinkle on the tomatoes pepper and salt, and leave them in the dressing two hours. They will then be ready to serve.

RICE WAFFLES.—Boil half a pint of rice and let it get cold, mix with it one-fourth pound of butter and a little salt. Stir in one and one-half pints of flour; beat five eggs separately; add yolks, together with one quart of milk; lastly, the well-beaten whites. Beat well and bake at once in waffle-irons.

WALNUT CAKE.—One cup of sugar, nearly one-half cup of butter, 1½ cups of flour, one-half cup of cold water, two eggs, one-half teaspoonful of soda, one teaspoonful of cream of tartar, and one-half pound of walnuts. Cut the nuts in fine pieces. Frost the cake, and put whole nuts on top.

BAKED STEAK.—A good way to cook steak when the top of the stove is occupied is to place it on a tin, season with pepper and salt, cover with another and bake about one hour. To those that relish them, onions placed between the slices make another dish for the table.

SNOW PUDDING.—One-half box of gelatine dissolved in one pint of water, two cups of sugar, juice of two lemons. Strain when it begins to thicken. Mix in the whites of two eggs beaten to a stiff froth. Mold it before serving; pour around it a soft custard made of the yolks.

GINGER CAKES.—One cup each of sugar, molasses, sour cream and butter, two eggs, five cups flour, one tablespoonful of ginger, one teaspoonful each of cloves and cinnamon, one-half teaspoonful of nutmeg; many add raisins—1½ cups, seeded.

FANCY ROAST.—Put one tablespoonful butter in a saucepan, add one-half saltspoonful white pepper, one teaspoonful salt and a few grains of cayenne; when hot, add one pint oysters and cook until plump and the edges curl; serve with toast.

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☞ *See Advertising Columns.*

The Week.

The week's weather includes several irregularities. Sunday afternoon a wind of considerable force and speed visited quite a large area of the State. In the city it contented itself with sanding the eyes of pedestrians and pitching around back-yard furniture at a lively rate.

At some interior points hailstones, which are uncommonly large and frequent this year, flew about in considerable numbers, pelting the poultry and in some cases lying a short time on the ground. The disturbance seems to have subsided by the relief which it found in a shower early on Monday morning, which laid the dust over the upper half of the State and in localities did somewhat more. We do not hear that the phenomena were productive of much injury. Since the storm the weather has been delightful beyond complaint.

The fruit crop is coming forward fast now, though on the whole it is late. Canneries and drying establishments are at work in earnest on cherries and early apricots. The outlook for the year's work in all lines of preserved fruit is excellent and the markets favor a large pack. Grain in some places is turning out better than expected and the fact is being spread out so as to cover the whole State. It is a misleading generalization. As for the East, the June report of the Government shows a decline of about 15 per cent from last year's crop.

The Wheat Corner.

The present wheat corner, with its radix in Chicago, is one of the most daring and enormous operations of the kind ever known. It seems that early last winter a combination of capitalists and dealers was formed to capture June wheat, and the secrecy and success with which the maneuver has been carried out confounds and amazes the oldest wheat sharp on the Board of Trade. Never has such profound mystery enveloped such a transaction. It is estimated that there are now $20,000,000 involved in this huge corner, and yet all the avenues of information have been so closely guarded that it is still only a matter of conjecture where the money comes from. This clique carried on its operations about three months before the trading community became aware of the mighty whirlpool forming in the ocean of trade, and for hundreds of unsuspecting operators this discovery came too late. The syndicate owns nearly all the wheat in Chicago, New York, Toledo, St. Louis, and San Francisco, and probably has control of more than half the stock in Liverpool, and for weeks the portentous shadow of this deal has played the mischief with the market of this staple all over the world. Honest dealers at first endeavored to protect their interests by boycotting every broker who was known or believed to be doing business for the syndicate, but, of course, this effort to seize a life-preserver was of little avail, as any broker could buy millions of June wheat during the day, and the sellers not know that it was all going one way, till the clearing house revealed the fact that it had all been swallowed up by the maw of the leviathan.

Now it is a little strange that while all our political economists agree in denouncing this sort of speculation, no one has yet suggested a practical legislative remedy. Of course, with the speculators it is a mere matter of gambling. They do not care a baubee for the derangement, the check upon exports, nor the hardship to consumers and small traders. They are after the gains, and are willing to take the chances. If capital can corner the monthly supply of any great staple, no scruples of conscience will deter it from making the combination. Now and then some great operator, like James R. Keene, is hoisted with his own petard; but still such operations occur and are likely to occur as long as an opportunity presents itself.

It is, indeed, really a serious question whether anything can be done by legislation to prevent this evil. It has been suggested that the speculative sales of "futures" might be interdicted by law, and that contracts for sale at a future time of what the seller does not have at the time the contract is made might be declared void. The Illinois Legislature enacted such a law, but it has proved ineffectual. It is contended there is a legitimate side to the selling of "futures"—that it is only another phrase for what all traders and merchants do, use their own sagacity and judgment in calculating the chances of the market and buy accordingly. But this is dodging the issue. The vice of this particular system is that where contracts on "futures" extend for two, four, six months, or even longer, as they frequently do, an opportunity is furnished and a temptation offered that few care to resist to get up a "corner" on the market, that, as in the present instance, often causes universal embarrassment and widespread ruin and disaster.

It is very easy to see how this is done. Suppose that a ring has good reason to believe that a large number of dealers in "futures" have extensively sold "deliveries" of wheat for a certain month, say June, and that the stock of wheat likely to be available on such contracts can be manipulated. They proceed quietly to buy up all the "delivery" contracts for that month. In the meantime they have all their confidential agents on the Board of Trade and out all over the country buying up all the wheat they can lay their hands on, and the result is, that when the month comes round that the delivery is to be made, the expanded operators suddenly awake to the fact that they are "cornered." Their contracts and all the wheat to tender against them are in the hands of a syndicate, who sucks all the vitality out of the market, and then the bloated spiders retire into the concealment of their web and wait another opportunity to catch another swarm of small dealers. It would be difficult to devise a more vicious system of speculation. In gambling, two sharps sit opposite each other to measure luck in a game of chance. They are both equally skilled and may closely watch each others' movements. But in this sort of speculation a sharp or ring of sharps take advantage of the quiet, unsuspecting public to get up a "corner" that will demoralize the market for a season, and beggar and ruin hundreds and thousands and roll up big fortunes on a single venture. It is robbery under the mask of legal and business forms. The remedial action of the natural laws of trade, as for instance the rush of Indian wheat to England to meet a vacuum created by an engorgement here, already makes too hazardous many repetitions of speculative combinations.

Since writing the above the news comes that the great wheat deal had collapsed, the enormous load proving too heavy for the clique to stand under. The collapse has been so complete, the rout so thorough, the excitement so indescribable, that at the present writing it is impossible to estimate the extent of the wreck and the disturbance of the market, but it is patent that when this cyclone subsides we will have a season of calm weather.

How forcible as an illustration of the utter fiction of values set by the grain gamblers is the following, which was telegraphed from Chicago on Wednesday morning:

The mere statement that cash wheat had shrunk 19 cents in three hours, and that July had lost 9¾ cents in the same length of time, is a very tame way of expressing the fact. Nevertheless, this decline represents an actual destruction of nearly $3,500,000 in the value of cash wheat that is now here in store and on the track. It represents the transfer of anywhere from $3,000,000 to $10,000,000 in profits on open trades in June and July from bull to bear accounts on the books of members of the Board of Trade. Individual fortunes were wrecked and other fortunes reared in an hour. It would probably be no exaggeration to state that the volume of business in the wheat pit aggregated 100,000,000 bushels, and it might have been much above that figure.

With all this fluctuation, there is not a grain of wheat less or more in the supply, not an iota of increase in the world's appetite, not a speck of war nor a breath of a storm which could affect future supplies—not a single consideration of legitimate production on trade involved in it. The whole movement is based upon men's greed and daring, and to minister to such lusts and passions, the people's food is made a shuttlecock. The whole business is wretchedly wrong and should be made criminal.

Our Market Reports.

We are devoting much care and space to our markets, endeavoring by personal attention to make them complete and reliable for the farmer. We would like to know how far we are succeeding to the satisfaction of our readers. We would also be much pleased to get the views of those who see wherein this department could be improved and rendered yet more valuable to our patrons. We desire and aim to make our market reports alone worth far more, to the many interested, than the price of subscription; and we try to have the RURAL PRESS so edited throughout that our readers can better afford to take it at $3 a year than accept any other paper gratis.

THE GREAT FAIRS.—It looks now as though the State and the Mechanics' Institute Fairs would coincide in the matter of dates, despite the effort put forth to arrange for different times. This being the case, the public can only try to make both fairs excellent and representative. We would have liked one to follow the other and thus prolong the time during which the visitor could have found a good display of California's industrial achievements. There is plenty of material, however, to make two notable exhibitions, and it is exceedingly important that it should be done.

A Good Point for American Ayrshires.

We have often alluded to the proof that Americanized Jerseys and Shorthorns have nothing to fear when shown alongside the best representatives of these breeds which have tarried in the land of their ancestors. The same could be easily shown to be true of the Holsteins, of American improved French and Spanish merino sheep, of the various imported breeds of horses—in fact, it is next to conceded that American breeders have, as a rule, handled animals to their improvement and not to their deterioration. Since some enterprising Americans are now breeding the sacred cattle of India for dairy purposes, it will not be long before the Brahmin will have to seek the best development of the bull of his father's beneath the stars and stripes. This is only what the world has come to expect of America—whatever the American touches is expected to go forward.

We are reminded of these things by reports which we read of the recent show of dairy cattle in New York City. A short time ago we gave the victors in the Holstein classes and a hint of the full competition therein. It seems that the fair was also notable for the interest taken by Ayrshire breeders. It is said that there were over 100 head of this breed exhibited, being second in numbers shown of the four dairy breeds, and probably the finest display of Ayrshires ever made in the United States, and are a credit to the breeders, in that it showed a uniformity of style and appearance, and a steady purpose to breed to one type. The herds were gathered from various sections, and some had been bred for many generations since importation, others were close to importation, and some imported stock which led into the ring; but the whole, with some few exceptions, showed that the breeder had the true type of an Ayrshire in his mind and had bred to this result, keeping the scale of points as the standard.

It is quite likely that the old Scotch Ayrshire breeders did not expect their favorites to be advanced or even held even. No doubt environment has something to do in shaping the type of a breed, and to get a breed in the wrong place is often to seriously change its characteristics. There is illustration of this, no doubt, in the experience of our readers even within the limits of California, but in the case of foreign breeds brought to America, as we have said above, the change has usually been in the way of improvement. Therefore, in the case of Ayrshires, we are not surprised to see Mr. Winslow, secretary of the Ayrshire Breeders' Association, giving the following incident:

The exhibition reminded me of a remark that Mr. John Lorne Stewart, of Scotland, made while on a tour of inspection of the Ayrshires of America. His idea was that the true type of an Ayrshire could not be perpetuated on American soil, and that we must constantly return to Scotland for renewal of blood. Not only did his examination of American breeding change this idea, but a glance at the animals as led into the ring would have shaken his opinion, for the premium cows gave a very good illustration of this, and greatly to the credit of the American breeding. The cow that won the first prize in the aged class has a very long line of American-bred animals behind her, while the cow that won the second prize was an imported cow of great merit. Nearly all the cows showed the idea of the breeder had ever been to bring out in every way possible the points that make up an economical milk-producer, in body and udder, the small, fine horn, the clear bony head, the fine neck and shoulder, the greatly increasing depth of body and heavy hindquarters, the capacious udder extending well back and strongly hung and lying well forward under the belly, with teats of convenient length attached to the four corners of the udder and filled up level between so as to give the utmost retentive capacity.

These statements will be of much interest to breeders of Ayrshires on the Pacific Coast. There are not many, it is true, who have bred the cattle pure, nor have they met with the encouragement they have deserved from dairymen, and yet they have done good service, and if they persist they will win prominence in the newer California which is now developing. We have room for all the good breeds, and situations specially adapted to each. With more people and more capital and more care in production, the improved breeds of cattle will advance in public esteem and their breeding will better reward the breeders.

CENTENNIAL CHERRIES.—Leonard Coates sends us a box of Centennial cherries picked June 11th. The fruit well sustains the fame of the variety. It is large, handsome and sweet. We shall reserve some to see how they will look at the meeting of the Horticultural Society on June 24th.

HOPVINES are beginning to entwine the poles in a clinging embrace. Hop-growers are anticipating a good yield in Sonoma county.

A Great Windmill.

Windmills are so common and so useful in this State that we have thought a picture of one of the largest windmills in the world would interest our readers. It is in fact a good-sized flouring-mill run by wind-power. It is situated in the town of Great Yarmouth, England, and is pronounced a perfect success. The plan of arrangement of milling machinery is different from that of the present day. The mill is working on the old principle of a full reduction at the first grind. J. H. Campbell, M. E., of Yankton, Dakota, who has just published a pamphlet on the windmill and its uses for flouring-mills, sawmills, irrigation, etc., has arranged a mill with machinery so as to use part gradual reduction with burs and part with rolls.

Of course, it is not necessary to build so large a mill as shown in the engraving, but it is desirable to build as high as possible for two reasons: First, to receive much more benefit by building a mill up to where the wind is fresh and strong; and, second, to get additional storage capacity, and it is much better to have that right in the tower of the mill than put up a building alongside; milling machinery can also be placed to much better advantage. A windmill built after the plan shown in the engraving will be 55-horse power, with the wind blowing at the rate of 25 miles an hour, and will make 120 barrels of flour easily in 24 hours. It is 11 stories high, with basement, and stands 99 feet above the foundation. At the base it is 35 feet in diameter, and 16 feet diameter at the top wall-plate. There are five run of burs in it. It has four sails on the patent principle, which are 40 feet and 9 inches long by 12 feet 6 inches wide. The sails are 100 feet in the clear, from point to point. They are provided with striking and regulating gear to keep the motion regular and to counterbalance any unevenness in the pressure of the wind. It is provided with winding gear, so as to keep the sails always square to the wind, and it is so adapted that it can be turned out of wind, if necessary, for repairs, etc. The speed of the sails is set to nine revolutions per minute, and the first motion from head wheel to wallower is two to one. The head wheel is iron, with heavy wood segments bolted around the rim of the wheel, so as to form the inner section of the gripe which is over and around it, and is used, when necessary, to stop the mill.

The milling machinery consists of one smut, one wheat-brush, two bolting chests, three reels in each; one cornmeal bolt, one break run of burs, one chop run, two run middlings and one run for either middlings or corn, as desired; one set of bran rolls, two set of smooth rolls, three purifiers, one brush-scalper for cracked wheat, and a rolling screen in the basement. It is provided with ample bin storage, so that any part of the machinery may be run and the product dropped without further handling, so as to make use of any and all winds which will turn the sails.

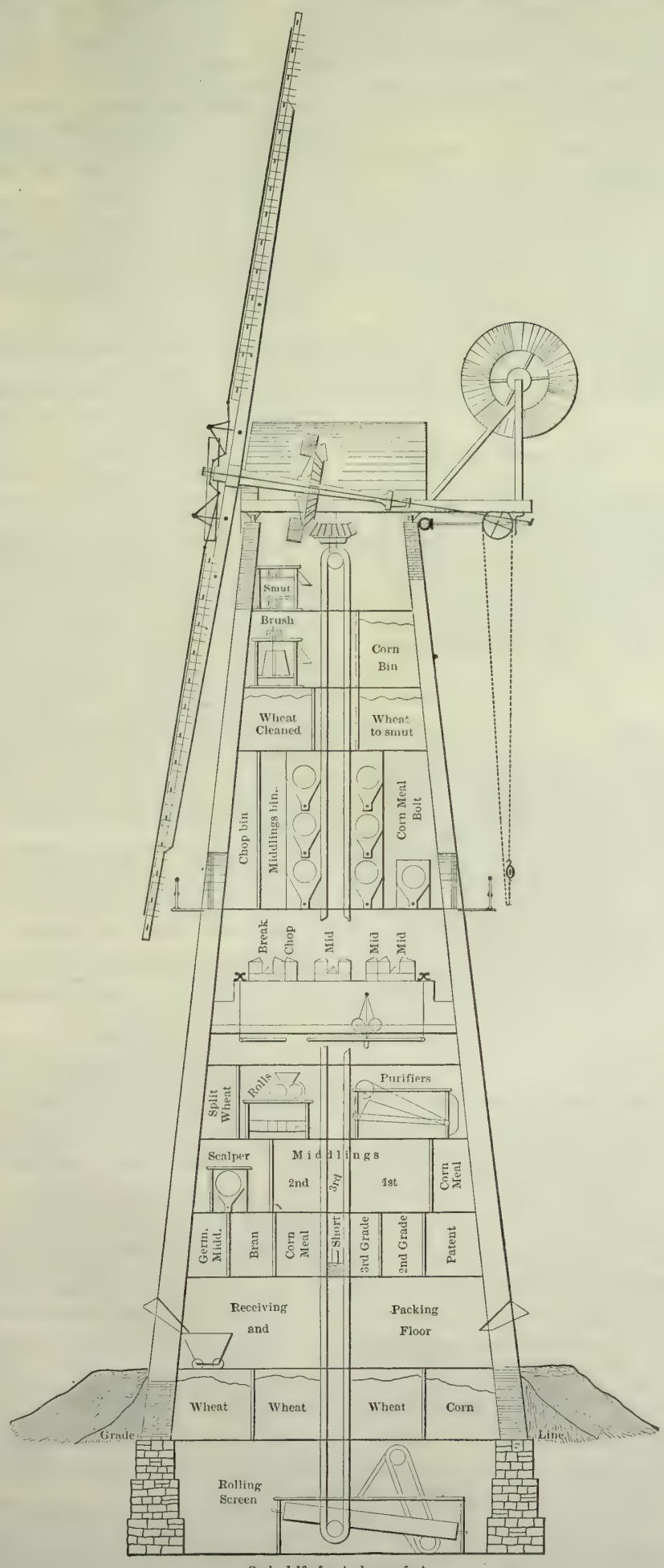
In his pamphlet to which we have alluded above, Mr. Campbell proposes to issue a more complete work, entitled "The Practical Windmill Builder and Millwright," which will give working drawings for making windmills either for flouring, sawing, irrigating, etc. We should imagine from the description that the book will serve an excellent purpose. Mr. Campbell's main design seems to be to induce a large increase in the use of Dakota winds for industrial purposes. We do not suppose that California can compete with Dakota in windpower, and yet the great use made of wind here for comparatively small purposes would indicate that in some cases extension could be profitably undertaken.

It seems that in the east of England, where there is no coal and water-power is scarce, the windmill still holds its own, and improvements have been many. Mr. Campbell says that the first set of patent sails ever used were made in the town of Great Yarmouth, England, which, by the way, his father constructed and put in operation. Thus the writer has an inherited right to talk about the windmill, and we are glad of an opportunity to introduce him to California readers as a devotee to still further progress in the use of wind-power.

LOCOMOTIVE OUTPUT.—The output of the locomotive works of this country at present is estimated to number nearly 40 engines per week.

Astronomical Observatories.

E. F. Spence, ex-Mayor of Los Angeles, and President of the First National bank of that city, has given a check for $50,000 to President Bovard, of the University of Southern California, to establish an astronomical observatory. It will be known as the Spence Observatory, and will be eventually thoroughly equipped.



Scale: 1-16 of an inch=one foot.

LARGE WIND FLOURING MILL AT GREAT YARMOUTH, ENGLAND.

Mr. Bovard thinks he will be able to raise $150,000 more in order to carry out the plans of the founder.

The State will soon be well supplied with astronomical observatories. The largest refracting telescope in the world will shortly be ready for use at the Lick Observatory on Mount Hamilton. The University of California has a telescope of its own, and there are several private observatories in Oakland. The Chabot Observatory, in that city, given to the public schools of Oakland by A. Chabot, is in constant use, and is well equipped. Two astronomers are employed, who are on duty every evening, and any one may visit the observatory on application to the Superintendent of Schools. The Davidson Observatory, in this city, belonging to Prof. Geo. Davidson, of the U. S. Coast and Geodetic Survey, is a very useful institution, and is constantly utilized. Of course our greatest observatory will be the Lick, for which $700,000 was bequeathed. Its equipment has been so elaborate and expensive, however, that it is now feared the income from the remaining fund will be too small to maintain it with the proper force of astronomers and assistants. The Regents of the University of California have decided that they will assume the expense of conducting the observatory when it is turned over to them, taking the money from the general funds of the University.

Another True Smyrna Fig.

California certainly deserves to have the "true Smyrna fig," even if she has not already obtained it. The persistence with which this variety has been pursued merits success. Its importance, too, has not been exaggerated; with the right variety, California can supply the world with choice dried figs.

Our readers are already familiar with the earlier efforts made to secure the true Smyrna fig. The latest expedition was also announced in our columns some months ago. It was the sending of Mr. W. C. West to secure the coveted treasure in the interest of Fancher Creek nursery, of Fresno. The Fresno *Republican* of June 10th gives an account of Mr. West's travels and return. He obtained valuable things in various places. We desire especially to quote that part of the narrative which bears upon the Smyrna fig, as follows:

At Alexandria, several varieties of dates, etc., were secured. From Cairo and other points of interest in Egypt, Mr. West went to Smyrna, where over three months were spent in active investigation of the horticulture of that marvelously fruitful land. Upon his first trip into the interior, the celebrated figs of Smyrna were just beginning to ripen. A number of the principal fig-growing districts were visited and a thorough examination made of the method of cultivation and manner of handling the crops. The olive orchards also came in for a share of attention. After a two-weeks' sojourn in the country, Mr. West returned to Smyrna and spent about seven weeks in the packing-houses, studying the methods employed in packing fruits for market. During his first trip in the interior he had carefully marked the fruit-laden trees from which he wished to secure cuttings, and, returning in November, he took from trees previously marked 11,000 cuttings of the Smyrna fig of commerce, grown in the Erbelie district, and also about 3000 wild or male figs, and 5000 of choice varieties of table figs. On this trip the curing and packing of Sultana raisins, then in progress, was carefully studied. As soon as the authorities discovered that the object of Mr. West was to secure cuttings of the fig of commerce, they issued printed orders that no cuttings from this fig should be permitted to cross the borders of the country. But Mr. West was not to be thwarted in the principal object of his trip by official orders, and hastily packing his cuttings in sacks, he smuggled them on board a ship in the night-time and there packed them for shipment. It was a bold move and met with complete success, as may be seen at any time by a visit to the Fancher Creek nursery.

This enterprise is by no means a small one to be undertaken and carried out by one nursery. Something of the extent of its cost may be judged from the fact that the cuttings of the fig of commerce alone cost over $500, exclusive of bribes and presents to those who assisted in procuring them. It is something no other nursery has ever attempted to accomplish. Mr. Roeding, the enterprising proprietor, deserves much credit for this invaluable addition to the horticultural resources of the Pacific Coast.

On Saturday of last week the cuttings, plants and seeds arrived at Fresno, and all in remarkably good condition. The cuttings were immediately planted in the nursery, and the percentage of loss promises to be very small.

Fruit-growers will await with impatience the fruiting of the new cuttings and hope that they will prove that the true variety has been obtained at last if it does not approve the truth of earlier importations which have been secured at high cost.

THE DRIVEN-WELL PATENT.—It is reported at the East that the U. S. Supreme Court has sustained the validity of the patent on driven wells, which has been for a long time contested by the patentee and the people who have driven such wells. The Supreme Court reverses the lower courts and holds that the invention had neither been anticipated nor used by others in a manner to invalidate the patent. The precise point raised that the patent covered a driven tube only, while the present practice is to drive a rod, insert a tube, and then raise the water by suction, was decided by the Supreme Court for the patent. The Indiana suit showed that 50,000 of these wells, on each of which $10 royalty was demanded, were in use in that State alone, and the number in the United States has been placed at between 500,000 and 1,000,000.

A DEVON COW, "Queen," owned by Chinn & Reddick, of Vacaville, gave birth to triplets on the 4th inst. A young Durham is the father of the calves, which are all perfectly formed, and were, like their mother, doing well at last accounts.

THE supervisors of El Dorado have abolished all tolls in that county, making the roads free.

THE VINEYARD.

Mysterious Death of Vines.

University Experiment Station, Bulletin No. 70.

An investigation into the causes of the mysterious decline and death of grapevines at certain points in Southern California has been in progress at the University Experiment Station for several weeks. The work was undertaken to test the results announced last year by reinvestigation, and because the loss and vexation resulting from death of vines continues in the same localities affected last year.

Quite a large collection of vines in different stages of decline was secured from the growers. In some cases the vine was almost lifeless and had made but the most feeble attempt to break its buds, in others one cane had made a fairly vigorous start while others did little or nothing; in others still all the buds had thrown out a few inches of very weak cane. Thus we had for examination vines in various morbid states. The examination of this material was also much helped by careful descriptions of the progress of the trouble by the growers and by personal investigation in the field by Mr. F. W. Morse. The results of the examination as to locating the trouble in the vine itself were mainly negative, as was the case last year. Although most careful microscopic examination of the leaves and wood of the affected vines was made, there was no parasite of either animal or vegetable nature found. In fact the tissue of leaf, cane and trunk was found to be perfectly normal, except that there were clear indications of defective nutrition resulting from a stoppage of the sap supply. Why this stoppage occurred there was nothing in the vines themselves to show. In some samples submitted, a part of the sap ducts were partly or wholly closed with gummy material, presumably the result of condensation of the small sap flow, because of lack of pressure to carry it onward to the nourishment of the newer growth, but there was not, on the whole, nearly sufficient obstruction to prevent the flow of sap had the flow been normal. In fact the decapitation of vines in the vineyard showed that there was in some cases very little sap flowing and in others none at all. This checking of the sap flow is not the immediate effect of parasite attack and where it sometimes results as a secondary effect, the tissue of the plant shows the disorganization produced by the earlier invasion of parasite growth. In the cases examined this source of trouble was plainly precluded because the tissue was normal and healthy, except in the noticeable deficiency in the sap flow. This fact was determined by repeated examination, both of cross and longitudinal sections of the new growth, the younger wood of the spurs, the trunk of the vine and the roots and rootlets—even to the smallest which could be found on the vines sent to us.

This conclusion is a verification of the results set forth last year by field examinations by Mr. Morse and by microscopic investigations in the laboratory—an account of which is given in the Viticultural Report of the University for 1886 (page 176 *et seq*), to which the reader is referred. His conclusion was that there was nothing found that would indicate a true disease which might increase and spread to neighboring vineyards, but that the phenomena were traceable to more or less accidental and local peculiarities of soil, season, moisture conditions, etc., which may not recur and produce similar effects for many years. It is altogether likely that the continued decline of vines observed this year is but the natural sequence of unfavorable conditions prevailing in the winter and spring of 1886. Since the loss has been greatest in districts where vines have been longest cultivated, it is possible that the evil has been aggravated by the gradual exhaustion of the soil; pointing to fertilization as at least a partial remedy and preventive by enabling the vines to rally from their enfeebled condition, through the recuperation of the root system.

Remedy for the Anthracnose of Vines.

A bulletin of the Agricultural Society of France, lately received from Mr. Chas. Joly (president of the Horticultural Society of France), gives the following information on the subject of the treatment of vines for anthracnose ("black blight," "sunburn," etc.)—*Sphaceloma ampelinum*:

The viticultural section of the Society of French Agriculturists has decided to render as public as possible the instructions given below, which have been published by the Bureau Directors of the Medoc syndicate under the signature of its president, Mr. N. Johnston, and whose object is to indicate the best means of dealing with the anthracnose of vines.

The members of the syndicate having repeatedly tried the application of sulphate of iron (copperas, green vitriol), have obtained satisfactory results, and intend to repeat its application on the whole of their vineyards. They do not intend to say that this remedy cures the evil completely, but they believe that if practiced with care it greatly diminishes its ravages, and they advise the members of the association to try it. They even believe that where the vine has been most seriously attacked, two applications should be made at intervals of 10 or 12 days, such treatment having given excellent results.

The solution to be used should contain at least three pounds of copperas per gallon of water, to which may also be added two ounces of copper sulphate or bluestone. The solution is best made in hot water, and it should not be allowed to get very cold, so that it may not deposit a portion of the dissolved substance.

The application is made with a brush, to the wood of the vine, taking care that all parts of the vine, from the base of the stock to the ends of the canes, are moistened with the solution. The capital point is, however, that at least the wood of the last three years should be well wetted.

The amount of copperas used is about 45 pounds per acre of (long-pruned) vines (on short-pruned kinds, of course, materially less in proportion).

The application should be made before the vines bud out, since the strong solution would seriously injure the tender foliage.

Experiments with sulphate of copper alone have also been tried and seem conclusive, but were on too small a scale to be made a rule. The use of a solution containing five per cent, or 2½ ounces, per gallon of water appeared perfectly effective; weaker solutions were not altogether satisfactory in their action.

While it is too late to apply these remedies in California this season, in the precise manner indicated, those noting symptoms of the disease on their vines might try spraying with weaker solutions, in order to check its progress, or at least to prevent its spread to neighboring vines. E. W. HILGARD.

Berkeley, June 4, 1887.

Grape-Growers' Meeting.

A regular meeting of the Grape-Growers and Wine-Makers' Association of California will be held at the Grand hotel, San Francisco, June 21, 1887, at 11 o'clock A. M. Members who have not paid the fee of $1 for this year are requested to do so. E. H. RIXFORD, Sec'y.

(*Other Viticultural Matter on page 549.*)

THE VETERINARIAN.

Colic or Gripes in Horses.

EDITORS PRESS:—In a great many stables horses are subject to frequent attacks of colic or gripes, indicated by pawing and rolling or attempts to do so in the stall. One very common cause—I may say the most frequent—is over-feeding. Animals that are over-fed are certain sooner or later to become the subject of indigestion, of which colic is but a manifestation. Horses that are once affected with pain in the abdomen or belly are much more liable to subsequent attacks. To say exactly how much food should be given would be absurd, as that depends upon the individual horse and the amount and kind of work he has to perform. Occasionally I go into stables where horses leave their grain; in such establishments they are over-fed, and to this may be attributed cases of indigestion. Not long since I made a post-mortem examination upon a horse that had for a long time been subject to attacks of indigestion, and his liver was nearly white in color and extremely soft in consistence, and altogether it was very evident that it was in such a condition as not to have been capable of secreting bile; and as this secretion is purgative in its nature, in all probability the lack of it in the bowels produced the obstinate constipation from which the horse ultimately died. The walls of the stomach were also very thin, due to repeated over-distention. Horses often die from rupture of this organ, induced by these matters of which I write. It is, with many people, customary to give as much hay to horses as they will eat, and there are often instances of gluttons among these animals as with men. In several well-conducted stables, an average sized horse is allowed 14 pounds of hay per day, and the same animal will be fit for a good day's work if he gets about 12 quarts of oats in the same length of time. It is well known among horsemen and practical veterinary surgeons that food given in excess of this often produces indigestion. In a state of nature such treatment is unnecessary, but considering that the horse is in an extremely artificial condition, it is important that he should be by the same means protected. And there are men who put their horses to hard work immediately after having eaten a very hearty meal.

Allowing horses to drink too much water at one time is often a cause of colic. "It is better to water horses five or six times a day, and so to avoid extreme distention of the stomach and its bad consequences. When some individual horse shows a tendency to be frequently attacked with colic, it is advisable to give him a dose of purgative medicine, and after he is put upon his regular diet, to give him a tablespoonful of powdered charcoal in his feed, three times a day. This tends to prevent fermentation in the stomach, and its use may be kept up until such time as the tendency to colic has subsided."—*Breeders' Gazette, England.*

I have found by *practical experience* that horses subject to frequent attacks of indigestion are much benefited by being turned out to graze for a season. The digestive system is allowed to recover itself by a return to natural conditions. ROBERT J. DAWSON,

225 Geary St., S. F. Veterinary Surgeon.

Santa Ana and Ventura Flowers.

Among the greater floral fairs of '87 must be counted those held the latter part of May at Santa Ana and San Buenaventura. The flower festival at Santa Ana took place in Spurgeon's pavilion, opening Tuesday evening, May 17th, and continuing through the week. It was gotten up by the W. C. T. U., in order to raise funds for building a temperance hall, with free reading-rooms and library. As the object was so worthy, it is particularly gratifying to know that the attendance was large and the receipts past expectation.

On the wall, over the entrance, wrought in flowers of various hues, appeared the emblem of the Good Templars—a cross, anchor and heart—with the letters F. H. C. across the heart. Above stretched a scroll of evergreens, bearing the symbolic I. O. G. T.

The ladies from Garden Grove had the name of the town worked in pampas plumes and red roses on the evergreen cornice above their booth. Among the various designs displayed was a beautiful floral map of the Golden State. And here were to be seen not only greenery and blossoms, but lemons, oranges and—new potatoes!

The verdure-thatched roof of the Orange booth ran up to a peak, which was fittingly crowned with a great cluster of the fruit that gave the place its name. Below, among bouquets and other pieces, were shown a Maltese cross in carnations, a violin of pansies, a banjo of marguerites, and a large panel of white roses, with the word "Orange" worked in carnations

The Tustin booth was elegant, and contained many tasteful designs, the chief one being a solid bank of white roses nine feet high, surmounted by a crown of red flowers, above which, in a semi-circle, was the motto of the W. C. T. U.: "God, Home and Native Land," of marguerites on a green ground Outside this booth, but making part of the Tustin exhibit, was a much-admired flower-piece representing a tank-house and windmill complete, with the fans revolving, composed of roses, marguerites, carnations, evergreens and smilax.

The G. A. R. booth was adorned with tri-colored national emblems, and two large American eagles, one suspended over the entrance, the other perched on a column to the left. The ladies of the Relief Corps exhibited a great variety of war relics. Near this was a floral ocean, blue and white, bearing upon its bosom a beautiful little steamer made of marguerites, geraniums and smilax, the name "Newport" at its masthead, which seemed to be approaching a floral pier.

The Santa Ana booth was the most extensive and ornate of all—a very palace of flowers. One of its principal designs was a lighthouse of marguerites, standing on a bank of evergreens, in a sea of azure bloom. The large bouquet, set in place of the lantern, was brilliantly illuminated.

Besides all floral attractions, the fair embraced an art gallery, Jap. and California curio booths, a lemonade well and refreshment stands, and musical entertainments in the evening.

Ventura's Floral Fair

Came off May 25th to 28th. By the tasteful industry of the ladies, with boundless floral resources at command, Union hall had been transformed into a vast bower of beauty, and was thronged with delighted admirers Wednesday evening, when W. E. Shepherd stepped to the footlights and announced the formal opening of Ventura county's second annual Flower Festival.

The stage appeared to rest upon a mound of verbenas, its front, from the footlights to the floor of the hall, being one bank of many-colored blossoms. On the stage, at either side, were easels supporting the floral emblems of the Good Templars and the Sons of Temperance, and we understand the proceeds of this fete, as well as that at Santa Ana, go toward providing a free temperance hall.

Near the entrance of the hall a pillar of wild and cultivated flowers, including mimulus, gladiolus, roses, snapdragons, etc., attracted notice. A table of cacti blossoms, night blooming cereus and *Fremontia Californica* (labeled "gold drops") from the Lexington mines, was quite unique; and the lily booth, trimmed with rushes and water lilies, had in the center an eight-foot pyramid of fragrant wax lilies, interspersed with ferns.

The Santa Paula booth was covered with palm branches and contained a beautiful bank of flowers, in the middle of which was a lyre composed largely of roses, while at one end appeared the monogram "S. P." wrought in carnations on a background of cypress, and at the other a great floral star. In front was a fine display of Santa Paula fruits—oranges, lemons, limes, loquats and cherries—contributed chiefly by N. W. Blanchard. The old oaken bucket, made of geraniums, lantanas and marguerites, was a remarkable piece of work.

J. Hobart, of the Ojai, displayed fine lemons, entirely free from scale or dark rust, with branches of the trees equally free from scale. Prof. F. S. Buckman, also of the Ojai, had a handsome exhibit of citrus fruits, arranged in the form of a monument 12 feet high, surmounted by a cupid holding a plate of oranges. About 3000 oranges were used in the construction. The space at the bottom and the pillars supporting the canopy over the pyramid were filled in and hung with clusters of oranges and lemons.

The Hueneme booth was much admired. It embraced a pyramid of roses, pillars of digitalis, clusters of fine seedling carnations, cacti, snowballs, orange blossoms, geraniums, magnolias, gladiolas, and two aquariums with pond lilies in bloom.

Mr. and Mrs. Joseph Sexton, of Goleta, Santa Barbara county, showed the flowering fence, a great number of seedling carnations, loquats and a plate of the Mexican custard apple, which Mr. Sexton has cultivated with success.

The Saticoy exhibit contained 25 varieties of roses, branches of camphor tree, Chinese pinks, coral plant, hibiscus, crinum, New Zealand flax, etc.

A bank of the wild flowers and ferns of the neighborhood, including lupines, California poppies, butterfly plants, Yucca Whipplei, etc., reached a hight of 12 or 14 feet.

Conspicuous in the center of the hall were the carnation booth of Mrs. Theodosia B. Shepherd and the rose booth of Mrs. H. W. Conner. The former, in the shape of a pagoda, was decorated with Norway pine and evergreens, and the pillars festooned with sprays of fuchsias of 30 different varieties. Around the pagoda, in banks of Oregon moss fringed with begonias, were 107 varieties of carnations—65 from Mrs. Shepherd's own garden—and many bunches of pansies. The latter, also pagoda-shaped, had its columns trimmed with pepper boughs, ivy and loquat, and here were artistically displayed about 300 varieties of roses.

Of course, there were cut flowers and bouquets in diversity and profusion, and multifarious designs; and what with all the evening entertainments—music, pantomime, tableaux, etc.—they had a merry and delightful festival.

Since the foregoing was put in type, we have been favored with a letter, giving other glimpses of the floral fete, which we take pleasure in sharing with our readers.

EDITORS PRESS:—San Buenaventura succumbed to the prevailing epidemic of flower festivals, and is justifiably proud of the grand display at Union hall, which commenced May 25th and continued four days and nights.

The festival was under the supervision of Mrs. Theodosia B. Shepherd, and to her admirable management and the hearty co-operation of the ladies of Ventura county the success was mainly due.

The lily booth was one of the most attractive. Of graceful design, trimmed with fir, wild rushes and palm blossoms, it was profusely decorated with lilies of different varieties. A pyramid of white lilies and an arrangement of pond lilies were the most noticeable features.

Thousands of roses were used in decorating the booth devoted to the queen of flowers, the pyramid in the center alone containing 1200. The mate and rival to the rose booth, the carnation booth, was ornamented with evergreens and palm branches. Begonias and fuchsias entwined the pillars and peeped saucily out of the gothic-shaped windows, and fringed a most magnificent and valuable display.

The candy booth was semi-hexagonal in shape, and had the appearance of being built of huge sticks of striped candy. The entire structure was covered with double red geraniums and white roses. The lemonade booth was tastefully decorated with evergreen, white roses and lemons.

Mr. Faulkner, of Santa Paula, had an exhibit of cherries and currants, and Mr. Maguire, of Ventura canyon, a display of cherries. Hitherto Ventura has imported this popular and delicious fruit, and it is gratifying to note that it, as well the currant, can be raised at home.

The Sons of Temperance had on one end of the stage a beautiful wreath in red, white and blue flowers—emblems of the Order—resting on an easel; below it a pitcher of water and a glass. At the other end of the stage the Good Templars arranged a monogram F. H. C. on an easel. From the top of the stage hung a handsome blue bow of ribbon, representing the Blue Ribbon Order, and the W. C. T. U. were represented by letters of white flowers.

In front of the stage was a bank of verbenas 20 feet long and 5 feet wide.

There was a fairy booth, where bouquets were sold, a popcorn booth, and a soda-water stand—all profusely and tastefully decorated.

The ice-cream booth was a thing of beauty, adorned with fan and date palms and loquat branches bearing fruit.

Santa Paula and Hueneme vied with each other in fine display of flowers and elegant designs. Much sought after and complimented were the sunflowers—eight handsome young ladies metamorphosed.

Each evening the audience enjoyed a musical and literary treat. The whole affair was a brilliant success, reflecting great credit upon the entire county, and the receipts aggregate over $700. I. M. W.

San Buenaventura, June 7, 1887.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, $3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

The Gardens of Tuolumne.

EDITORS PRESS:—Leaving Copperopolis by the traveled stage route to Sonora, a few pleasant homes are passed, some hidden in the valleys below the grade that leads around and over the hills that wall in the foaming Stanislaus, and a few within easy reach from the road. One about three miles from Copperopolis is particularly noticeable—a home that has long been there by the wayside—recalling to the older settlers past associations and forgotten scenes, still quite unchanged through the slow wearing years that have destroyed and built up other homes. This place is the Empire ranch, belonging to Mr. E. W. Campbell. Of late years the wild, bush-grown hills have changed into bearded fields of barley, and around the house the garden has expanded far out in front, so that if those gay cavalierly vaqueros of the early days were to ride up on their fiery mustangs they would find no more the well-worn hitching-post and the trodden stamping-place where they so long remained in the distant bygone years. The house, a white two-story building, large and comfortable, partially hides itself behind stately balm of Gilead trees and a native oak, while beyond it stretches a cool, green meadow, where the calves and colts roam in the yellow sunshine. No wonder that in this romantic, quiet home its gifted mistress finds inspiration for her pen and time for her bright, spicy letters and stories that all take pleasure in reading! Mr. Campbell owns a large tract of land around this place, and uses it mostly as pasture for his horses and cattle.

Farther into the hills beyond the river, the gardens begin to appear, and near Tuttletown, in Tuolumne, they are quite numerous and look fresh and well kept. But it is around Columbia that our grand old orchards, famous from the early days for their delicious yield of red and golden fruit, stretch far and wide over the low-sheltered slopes and rustle myriads of shining leaves in the clear, cool mountain air. Rows on rows of stately apple trees promise a rain of red-cheeked, juicy apples in the red blaze of autumn suns, and nodding peach trees glow in mellow sunlight and bestow the last pink petal on the breezes sighing through the pines. There are vineyards, too, suggestive of green and purple bunches when fall comes to ripen the blooming grape. Sonora seems to be the very heart of all this fruit country, surrounded as it is by gnarled and aged trees, mingling with swaying seedlings on every hand. Over 30 years ago the first fruit-grower, O. S. Davis, set out the celebrated orchard on Wood's creek. It is now greatly disturbed by mining operations, but the larger part of it still remains, growing close up to the street, over which two ancient cherry trees have dropped their bright clusters for more than 30 years. An Alden drier was erected on this place, but it is now unused, and Mr. F. S. Macomber utilizes it for packing and storing his champagne cider, which is kept here for three years before being offered for sale. This cider is most excellent and receives high praise from all buyers, so the demand is large. Thus there is a ready home market for a large proportion of all the apple product in the vicinity.

Sonora and Columbia districts ship scores of tons of fruit every year and still hold their own among the favorite fruits, being pronounced as fine as any in the State. In the clear, bracing air of these higher foothills, and in the clear, warm rays of a fadeless sun, they obtain a high flavor and develop into fine large specimens of fruit, and receiving the praise that is due them, the enthusiastic fruit-grower studies and plans for still greater perfection. Sonora, surrounded by its sheltering gold-strewn hills, is still pressing on in its hurried pursuit of treasure. The reckless miners tear down, uproot and destroy, and then hold up their shining prizes for the admiration of the outside world; but there are many yet who still see the glory of their fair green orchards, and so plant deep and well for the sure rich harvest of after years. Thus it is we see the cool green trees almost shading the restless miners at their work. This town, so truly called the "gem of the mountains," so beautiful is it with its lovely homes, its winding shaded streets, and ever-present history of its past breathing in every seam and ragged spur of the blue hills, is the county-seat of Tuolumne and the great center for all kinds of business; and although it has passed the zenith of its reign as queen of all this great mining land, another future as hopeful lies before, when its hills shall be peopled by those who call it home, and love it, not alone for the ore in its rich, red soil, nor yet for its glorious golden past that stamps it best among things that were, and hopeful among the things to be, but as well for its clear, sharp airs, its sparkling dew-wet hills, its breezy pines, its trembling orchard leaves glinting in the fair, warm sunshine—which promise to expand all nature into life, and strength, and loveliness, and crown our beautiful Sonora among the fairest of earth's cities in years to come. MAY BLOSSOM DAVIS.

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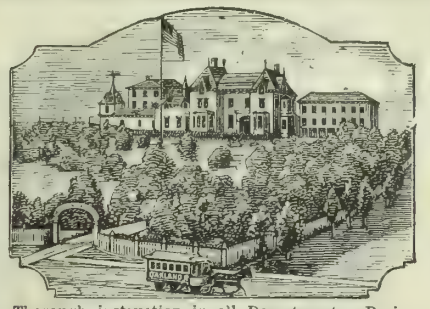
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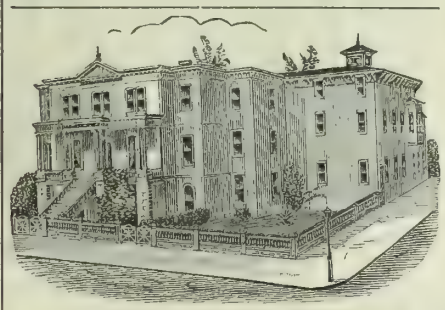
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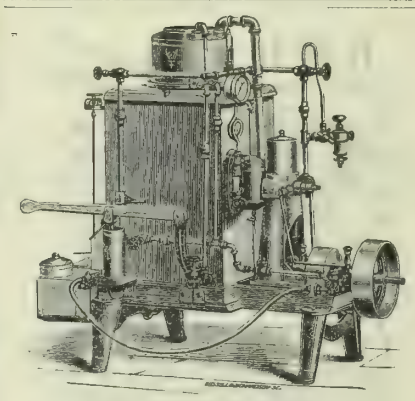
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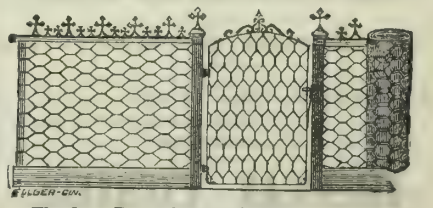
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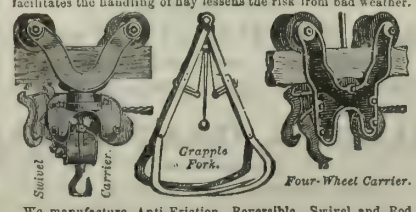
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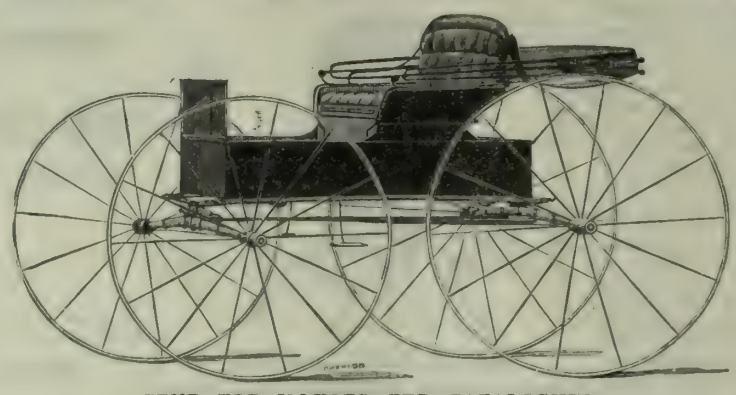
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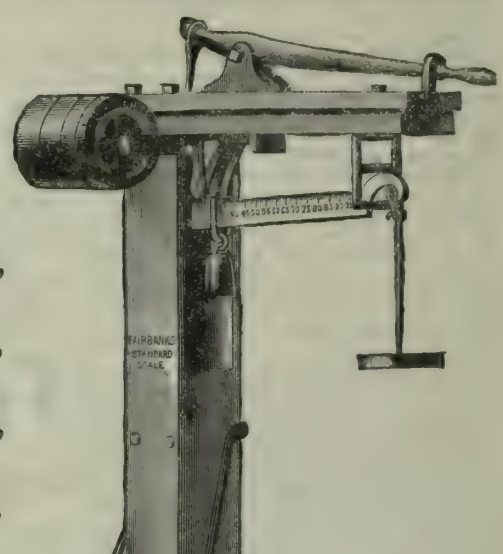
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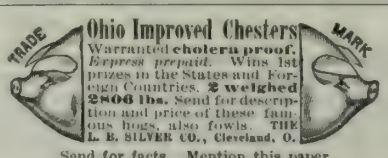
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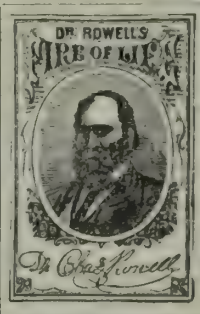


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Collections promptly made. Exchange bought and sold.

FRUIT MARKETING.

Our Fruit at the East.

EDITORS PRESS:—We have letters from Mr. Blowers, from New York, in which he speaks very hopefully of the situation this year. He says that he has interviewed the Erie express people, who promise to do all in their power to facilitate the unloading of our fruits at their terminal, giving us shedroom, etc. The selling by auction there necessitates our getting many concessions from the railway people, as we must have space in which to display the fruit and segregate it according to the catalogue, which has been previously prepared from information sent on by telegraph. Mr. Blowers says further, in regard to auction sales: "That they sell over 5000 boxes of European fruit in an hour. If our packers see to it that they send nothing but good, healthy fruit, well packed, uniform and full weight, we can sell at the proper time an immense quantity of fruit in this market at better net rates than we have been getting for many years. The small apricots I saw in this market to-day were held too high to make much headway—$1 per basket of five pounds. Strawberries are now plenty and good in the market, and Florida and Mississippi peaches have been in for two weeks, but are neither attractive nor plentiful. I think good progress is being made to start right. I regard New York, with its 3,000,000 people in a radius of 10 miles, and its contiguous towns and country, with as many more, as a key to the situation. If we can pull together and start right here, we can make the Union a grand success for the whole State. I am now more sanguine of our great success than I have ever been."

We hear from Michigan that the crop of peaches there this year will not go over 30 per cent of a full crop.

Telegram from Chicago June 13th: Peaches arrived in good condition, selling at from $2.25 to $2.50 per 20-pound box. Apricots selling at from $1.75 to $2 per 20 pound crate. The weather is very hot and muggy and hard on fruit. We are sending from one to three cars per day, all but two of which have paid extremely well. As soon as Crawford peaches are ripe, cars will go through to New York.

Dix & Wilkes have been appointed agents at Baltimore.

H. A. FAIRBANK,
Sec'y California Fruit Union.

Sacramento, June 14th.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING JUNE 7, 1887.

364,571.—DREDGING APPARATUS—A. B. Bowers, S. F.

364,480.—ORE-CRUSHER AND GRANULATOR—Christy & Bennett, S. F.

364,309.—PIANO ACTION—D. E. Dopp, Santa Rosa, Cal.

364,400.—DEPRESSION PULLEY—W. Dunham, Igo, Cal.

364,401.—HEADLIGHT—W. Dutch, S. F.

364,341.—LID AND DRAINER FOR COOKING VESSELS—O. W. Godkin, Berkeley, Cal.

364,408.—CONDITION POWDER—J. W. Griffes, Hanford, Cal.

364,509.—FISH-LINE REEL—F. Gundorph, Portland, Ogn.

364,254.—WOOD-BORING MACHINE—J. B. Higdon, Vancouver, W. T.

364,351.—CAN-HOLDER—Ingraham & Crist, S. F.

364,421.—CAR COUPLING—W. A. Ladd, Colfax, W. T.

364,362.—PLOW—N. McLean, Watsonville, Cal.

364,598.—CAR COUPLING—H. M. Morris, Middletown, Cal.

364,372.—SAVING QUICKSILVER—J. H. Rae, Dayton, Nev.

364,437.—BRAKE FOR RAILWAYS—E. L. Reese, S. F.

364,444.—ANNUNCIATOR SYSTEM—Paul Seiler, S. F.

364,606.—BARREL—John T. Smith, S. F.

364,611.—TOWEL-RACK—F. W. Swigart, Cloverdale, Cal.

364,559.—HOSE-COUPLERS—W. F. Wamsley, Walla Walla, W. T.

364,558.—HOSE-COUPLERS—Wamsley & McIntosh, Walla Walla, W. T.

364,323.—REVERSIBLE BROILER—A. A. Waterhouse, S. F.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

SEASIDE RESTING PLACES.—To those who desire to fly the heats of the valleys and dwell beneath their own roofs by the seaside for a season, the announcement in this week's RURAL of sales of lots at Pacific Grove, Monterey county, will be of interest. It is proposed to sell residence lots by auction at the following times: Tuesday, at 1 P. M., June 28th; Wednesday, at 10 A. M., June 29th; Thursday, at 10 A. M., June 30th. Full information concerning the sales can be had by reference to the advertisement in another column.

Meeting of Viticultural Commissioners.

The State Viticultural Commissioners met in regular session at the office, 204 Montgomery street, Monday. There were present Commissioners Haraszthy, Wetmore, De Turk, Krug and Manlove, Chief Executive Officer Wheeler and Secretary Clarence J. Wetmore.

A communication was read by Mr. Wheeler from Dr. J. A. Bauer relative to his successes with his remedy for the phylloxera in the Hagen vineyard. Messrs Krug, Crabb and Wheeler were appointed to examine and report.

Mr. Wheeler was instructed to confer with the State Analyst, Prof. Rising, and arrange with the Regents of the University relative to giving Prof. Rising more assistance in making analyses of wine.

Dr. Manlove offered the following resolution, which was adopted:

Resolved, That the Chief Executive Officer is hereby instructed to issue a circular to local resident inspectors throughout the State, calling upon them to report promptly whenever they discover any violations of the Pure-Wine Act in the use of materials forbidden by law in the manufacture of wines sold as pure.

Mr. Haraszthy read a letter from C. P. Huntington, in which he agreed that the Southern Pacific Company should co-operate with the Commission in sending a representative from this State to the London exposition to do missionary work for California.

Estimates as to the amount of wine that would be made this year were made by those present, and they ranged from 15,000,000 to 22,000,000 gallons.

Dr. Manlove reported that the frost had done a great deal of damage to some of the vineyards in his district, but that the Natoma vineyard had escaped, owing to the smoking of the vineyard. Mr. Krug reported that his Rieslings trained on wires had suffered a great deal from the frost, and that where he got last year 12 to 13 tons to the acre he would not get three this year. He thought Napa valley was good for two-thirds of a crop this year.

The election of officers resulted in the re-election of the present officials: President, Arpad Haraszthy; Vice-President, Charles A. Wetmore; Treasurer, Charles Krug; Secretary, Clarence J. Wetmore; Chief Executive Officer, J. H. Wheeler.

The Pure-Wine Law.

In order to secure a more definite interpretation of the Pure-Wine law, which lately became operative, and to learn more of its object and effects by way of an authoritative opinion, Executive Officer Wheeler, of the Viticultural Commission, recently addressed another letter to Attorney-General Johnson on the subject. Several interested wine-growers desired the view of the Attorney-General on the legality of the recently adopted resolution by the merchants, requiring every vineyardist to send to them an analysis of all wines shipped by him to the dealers.

The Attorney-General replied as follows:

SACRAMENTO, June 10, 1887.

J. H. Wheeler, Esq., Chief Executive Viticultural Office, San Francisco—DEAR SIR: In yours of the 9th inst., you inquire:

First—Does the Pure Wine Act, approved March 7, 1887, "in any wise alter or interfere with the performance of contracts made for the sale and delivery of wines, whether such contracts were made previous to June 5, 1887, or after said date, provided the wine sold and delivered is pure wine according to the law and branded, labeled, or prominently marked 'Pure California Wine,' with the name and address of the vendor?"

Second—"Has the buyer of wine any legal right to demand of the vendor a certificate of analysis of the wine sent, when the vendor has become himself satisfied in making it that the wine is pure, and has duly branded, marked or stenciled the package, 'Pure California Wine,' with his name and address, in perfect compliance with Section 8 of said law?"

My answer is "no." The buyer cannot refuse to receive the wine because there is no analysis or certificate of analysis, but if the evidence should show that the wine so sold was impure, he cannot be held under his contract. Very truly yours,

G. A. JOHNSON, Attorney-General.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.

DATE. June 9-15.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	.00	60	SE	Cy.	.*T	72	SE	Fr.	.00	74	S	Fr.	.00	64	W	Cl.	.00	80	W	Cl.	.00	68	SW	Cl
Friday	.02	60	SW	Cy.	.00	72	S	Cy.	.00	66	NW	Cl	.00	61	W	Cl.	.00	80	SW	Cl.	.00	70	W	Cl.
Saturday	.11	60	N	Cy	.*T	66	S	Cy.	.00	72	S	Cy.	.00	62	NE	Cy.	.00	80	SW	Cl.	.00	68	W	Cl.
Sunday	.28	62	SW	Cy.	.07	70	S	Fr.	.00	70	SE	Cy.	.00	59	W	Cl.	.00	74	SW	Cy.	.00	70	W	Cl.
Monday	.01	60	NE	Cy.	.14	68	N	Cy.	.00	62	NW	Fr.	.07	62	W	Fr	.00	74	W	Cy.	.00	66	NW	Fr.
Tuesday	.00	60	NW	Cy.	.00	74	N	Cl.	.00	72	SW	Cl	.00	61	SW	Cl.	.00	76	W	Cl.	.00	66	NW	Cl.
Wednesday	.00	70	SE	Cy.	.00	82	NW	Cl.	.00	74	SW	Cl.	.00	68	SW	Cl	.00	80	W	Cl.	.00	68	NW	Cl.
Total	.42				21				.00				.07				00				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature; Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours. Note "T" indicates precipitation inappreciable.

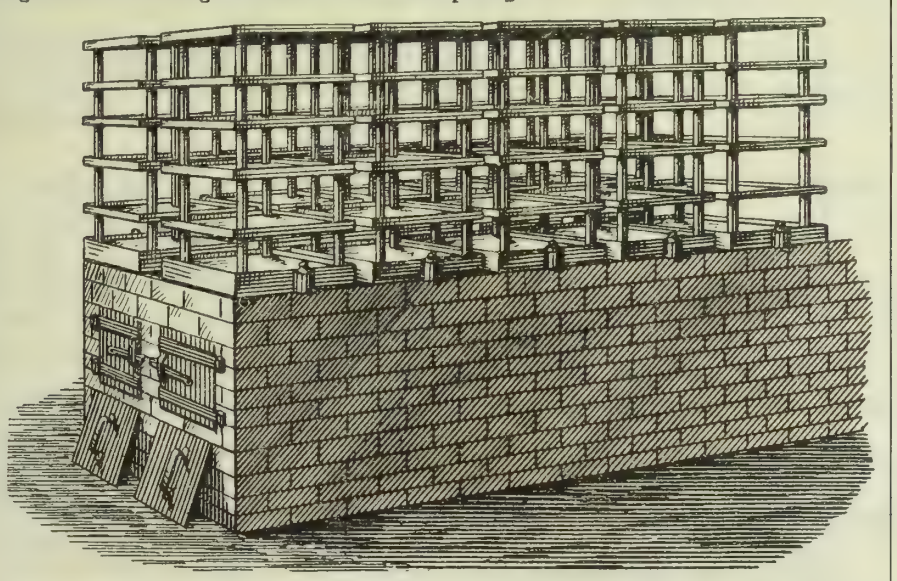
The Common-Sense Steam Fruit Evaporator.

We presented to our readers a sectional cut of this new fruit-drier a few weeks ago. This one represents what Messrs. Bachelder & Coates call a "10-section," or 2-ton capacity, as it is claimed it will convert about two tons of green fruit into the dried article in 10 or 12 hours. The cost is small, and it is claimed that a much cheaper furnace than the one represented would answer equally as well.

In operating the machines, a light wooden trestle is used, on which to rest one end while pulling them from the furnace to refill or empty. It has been suggested, however, that a narrow-width furnace should be used and longer walls, arranging the machines broadside out. As heat is required merely to keep boiling one to one and a half inches of water, the length of the walls could be quadrupled, or more, without enlarging the furnace or grate. No movable trays are used, the fruit being placed directly upon the double steam-heat pans. This is done for a two-fold purpose: to save expense and to shorten the time in drying. The results show that fruit that requires 10 or 12 hours by other processes is perfectly cured in less than half the time by this plan.

The pans can be lifted apart readily, but it is best to fill and empty as they stand, never putting any fruit upon them until the steam escapes from nozzle at the top, and then commencing at the bottom pan or tray.

The cut is from a photograph of the capacity which Bachelder & Coates are operating at Napa. While some practical fruit men are inclined to think modifications may be made in the method of operating, all agree that the principle is the correct one.



ARRANGEMENT OF "COMMON SENSE" EVAPORATORS ON BRICK FURNACE.

Lime and Sulphur Wash for Scales.

Mr. Isaac H. Thomas, the well-known orchardist and nurseryman, of Visalia, pronounces unequivocally in favor of the following, especially as a winter wash for San Jose scale. We have published the same recipe before, but repeat it as evidence accumulates in its favor:

Ten pounds unslaked lime, 20 gallons water, 20 pounds sulphur, Boil until thoroughly dissolved, then add 25 pounds of lime, 15 pounds of salt, and water sufficient to make 60 gallons of solution. Strain and apply milk-warm with spray pump, using a rubber disk in the San Jose nozzle. This wash did not hurt the fruit, when applied after the trees had blossomed out. I would advise the use of it in the fall, as soon as the foliage drops. Then, if necessary, the second application in spring before the fruit trees bloom. The cost per tree is from four to five cents.

BERKSHIRE SALE.—Among recent transfers of Berkshire swine, of which account is sent us by Phil. M. Springer, of Springfield, Ill., secretary of the Berkshire Record Association, we find the sale of "Forest Prince" 17,215, "Forest Queen" 17,216, and "Forest Sally" 17,217, by Andrew Smith, of San Mateo, Cal., to E. S. Paddock, of Forestville, Cal.

"Hope on, hope ever" How many delicate ladies there are who, while they attend to their daily duties, do so with aching heads, a sense of fullness, pain in the back and depressed spirits, who are "only keeping about," as the phrase is. Some day they "go into a decline," and leave their children motherless. To such we would say, "Cheer up." Timely use of Dr. Pierce's "Favorite Prescription" corrects all female irregularities, weaknesses and kindred affections easily, pleasantly and quickly.

* * * * All diseases of lower bowel, including pile tumors, radically cured. Book of particulars, 10 cents in stamps. World's Dispensary Medical Association, 663 Main Street, Buffalo, N. Y.

Chronic nasal catarrh positively cured by Dr. Sage's Remedy.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

JARED C. HOAG—California.
G. W. INGALLS—Arizona.
GEO. MCDOWELL—Santa Barbara Co.
J. L. DOYLE—Marin Co.
W. J. FREEMAN—California and Nevada.
WILLIAM POOL—Fresno Co.
M. S. PRIME—Alameda Co.
R. G. HUSTON—Butte, Montana.
E P SMITH—Humboldt Co.
S. J. LITTLEFIELD—Los Angeles Co.
EDMUND WRIGHT—Shasta and Tehama Cos.
H G. HAMILTON—San Mateo and Santa Cruz Cos.

THE sale of "Improved" New Becker Washers, unlike most labor-saving machinery, needs no advertisiug, no pushing by agents. Wherever it has been used in a neighborhood, orders come from all who know its work and are in need of a washer. Mr. E. W. Melvin has sold more the past season than ever before, and at times is not able to supply them as fast as wanted. The price is but little higher than other machines, and they are worth double anything in use. See his special offer.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to anyone who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Thoroughbreds by Auction.

Elsewhere will be found an advertisement giving particulars of a large auction sale of thoroughbred live-stock to take place in a short time, Killip & Co. being the auctioneers.

SEND for (post-free) list of Scientific and Industrial Books for sale at this office.

Dickert & Myers Sulphur Co.

MINE AND WORKS:
Cove Creek, - Utah Territory.

SUBLIMED SULPHUR,
FINE GROUND SULPHUR,
ROLL SULPHUR,
VIRGIN ROCK SULPHUR,
—AND—
LUMP SULPHUR FOR ACID and POWDER WORKS.

Guaranteed Purer and Finer than any in this market.

FOR SALE IN LOTS TO SUIT.

JAMES LINFORTH, - - Agent,
120 Front St., San Francisco.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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HOLSTEINS, AAGGIE, JACOB; NETHERLAND and Artis strains; all ages; largest herd to select from. Young bulls, low. (All registered.) F. H. Burke, 401 Montgomery St., S. F.

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E. W. STEELE, San Luis Obispo, Cal., breeder of Thoroughbred Holstein and Jersey Cattle.

SETH COOK, Danville, "Cook Farm," Contra Costa Co., breeder of Aberdeen Angus, Galloways and Devons (Registered). Young stock for sale.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 16 years, of every variety of Cattle, Horses, Sheep and Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poultry, Cattle and Hogs. Write for circular.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

THE BEST HERD OF JERSEYS, all A. J. C. C. registered, is owned by Henry Pierce, San Francisco.

H. W. COWELL, Stockton, "Morrano Farm," breeder and importer (and agent for Leonard Bros., Mo.) of Aberdeen and Galloways. Young stock for sale.

ONTARE RANCH, three miles west of Santa Barbara, Santa Barbara county, California. Coach Horses, Draft Horses, Trotting Bred Horses and pure Holstein-Friesian Cattle. Young cattle and matched teams always on hand. Francis T. Underhill, Proprietor. C. F. Swan, Manager.

T. E. MILLER, Beecher, Ill. Oldest and best herd Hereford Cattle in U. S. Cattle delivered in California.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

P. S. CHILES, Davisville, Yolo Co., importer and breeder of registered Shorthorns of the best families.

W. J. MARSH & SON, Dayton, Nevada. Registered Shorthorns of choicely bred strains.

H. van der STRATEN, Hopland P. O., Durham Valley Farm, Mendocino Co., breeder of Shorthorn Cattle (registered). Young stock for sale.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

GEO. BEMENT & SON, Redwood City. Ayrshire Cattle Southdown Sheep, Essex Swine.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle and Berkshire Hogs. A choice lot of young stock for sale.

M. D. HOPKINS, Petaluma, Cal. Eastern Imported registered Shorthorn Bulls and Heifers for sale.

POULTRY.

T. D. MORRIS, Sonoma, Cal. Tuolouse and Embden Geese, Bronze and W. Holland Turkeys, and all leading varieties of Thoroughbred Poultry.

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AXFORD'S IMPROVED INCUBATOR.—400 eggs, $50; 150 eggs, $25. Guarantee satisfaction. For particulars address, I. P. Clark, Mayfield, Cal.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

E. C. CLAPP, South Pasadena, Cal. Light Brahmas (Williams-Foot stock), Plymouth Rocks (Kieffer-Conger stock). Fowls and Eggs in season. No circulars; write for wants.

W. C. DAMON, Napa, Wyandottes, W. and B. Leghorns, P. Rocks, L. Brahmas, Pekin Ducks.

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REGISTERED BERKSHIRES, BLACK JACK, BESS and REDWOOD imported strains; pairs and trios, not akin, at farmers' prices. Young boars, low. F. H. Burke, 401 Montgomery St. S. F.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free

I. L. DICKINSON, Lone Oak Farm, Senora, Tuolumne Co., Cal., breeder of thoroughbred Essex Hogs. Pigs now ready for sale. Prices reasonable.

JOHN RIDER, Sacramento, Cal. Breeder of Thoroughbred Berkshire Swine. My stock of Hogs are all recorded in the American Berkshire Record.

SHEEP AND GOATS.

EASTON MILLS, Lakeville, Sonoma Co., thoroughbred Spanish Merino Sheep. Choice rams for sale

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of pure blooded French Merino Sheep.

J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale

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THURSDAY, JUNE 23d,

AT 1 P. M., AT

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Great Combination Sale of

40 Head Thoroughbreds,

Comprising drafts from Breeding Farms of

THEODORE WINTERS,
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Catalogues ready June 1st.

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FORTY HEAD OF

Cows, Heifers and Young Bulls.

—ALSO—

SOME GRADED STOCK.

Will sell in lots to suit purchasers. Address
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Catalogues and Prices on application to
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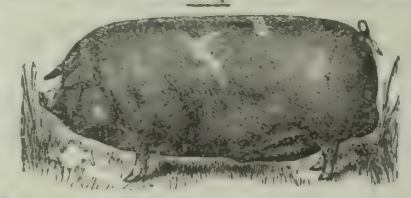
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A Specialty for Stable and Farm, is Booming. Why? Because it has greater merits than any other remedy and ten times cheaper. Order one quart or one gallon. Price, $1 per quart, $3 per gallon, making half a gallon and two gallons of Lotion. Money refunded in all cases of dissatisfaction. Ask your Druggist to get it for you. Send for reliable testimonials.

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25 CENTS PACKAGE

Makes Five Gallons of a delicious, sparkling temperance beverage. Strengthens and purifies the blood. Its purity and delicacy commend it to all Sold by druggists and storekeepers everywhere.

Farmers and Viticulturists, Attention!

FERTILIZE! FERTILIZE!

NITROGENOUS SUPERPHOSPHATE.

UNIVERSITY OF CALIFORNIA, Nov. 3, 1886.

DR. J. KOFBIG—Dear Sir: I have analyzed your sample of **"Nitrogenous Superphosphate,"** with the following result:

Soluble Phosphoric Acid	12.90	per cent
Reverted Phosphoric Acid	.95	"
Insoluble Phosphoric Acid	2.83	"
Potash	2.23	"
Ammonia	1.87	"
Nitric Acid	2.95	"

The above amount of **Nitric Acid** is equal to 0.85 per cent **Ammonia**, therefore, total of Nitrogen calculated as **Ammonia**, 2.72 per cent.

This **Fertilizer** is a **Valuable Manure** for vineyards, orchards, gardens, farms, and I **recommend** its use by the cultivators of the soil **generally**, in **California**. Yours truly, DR. E. A. SCHNEIDER.

University of California, College of Agriculture.

BERKELEY, Nov. 20, 1886.

DR. J. KOFBIG, San Francisco—Dear Sir: I take pleasure in adding my testimony to that of Dr. Schneider as to the high quality of the **"Nitrogenous Superphosphate"** Fertilizer, analyzed by him at your request. It is a **high-grade article**, and as such returns the user a better money value than a low-grade fertilizer. It is **especially well** adapted to use in **California**, on account of the **predominance** in it of **Phosphoric Acid**, which is generally in small supply in our soils. Yet it is desirable that **"complete"** fertilizers be used in our orchards and vineyards, and **yours is of that character** in furnishing Potash and Nitrogen as well. Very respectfully,
E. W. HILGARD.

The value of this Fertilizer consists in the large percentage it contains of **Phosphoric Acid**—the chief element of all plant food—in combination with the necessary quantities of **Potash** and **Ammonia**, and the ease and cheapness with which it can be applied.

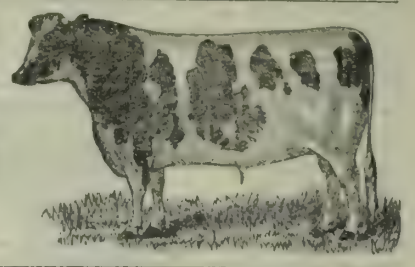
In ordinary soils the following quantities will be found sufficient: For Wheat, Barley, Corn and Oats, 300 to 350 pounds per acre. For Grass, Sugar Beets and Vegetables, 250 to 300 pounds per acre. For Vines, Fruit Trees, from ½ pound to 1 pound each. For Flower Gardens, Lawns, House Plants, etc., a light top dressing, applied at any time, will be found very beneficial.

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On board cars at Sobranto, Station of the C. P. R. R., 20 miles north of San Francisco, at $30 per ton, by the MEXICAN PHOSPHATE & SULPHUR CO., H. DUTARD, President, room 7, Safe Deposit Building, or

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Heifers in Calf in such grand bulls as **Netherland Star, Clifden Prince** (Holstein) and **Ashantee's Sultan** (Jersey) for sale at reasonable prices.

Also POLAND-CHINA and BERKSHIRE PIGS.

POULTRY—All Varieties.

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Headquarters for all Varieties of FANCY CHICKENS,

DUCKS, TURKEYS, GEESE, PEACOCKS, Etc.

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RAISIN DRIERS A SPECIALTY.

Being the first to make in Fresno, in 1884, a machine-dried Raisin that sold for as high or higher price than the sun-dried, and having the experience of the last three years, renders it possible to build a Raisin Drier guaranteed to be superior to any now in use in cheapness and efficiency. Estimates and prices furnished on application to

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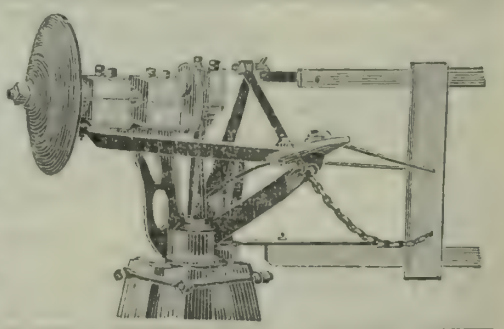
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The **Simplest, Strongest**, most durable, easiest controlled and cheapest ever offered to the public by the inventor of the Cyclone, Saunders, Hercules, Eureka. It is a recent invention, combining the best points in windmills, after years of experience. AGENTS WANTED in every town on the Coast, to whom a liberal commission will be allowed. A discount will be allowed on the first order from places where there is no agent.

PRICES:

12-ft.	$65 00	16-ft B.	$110 00
14-ft.	75 00	18-ft.	120 00
16-ft A.	90 00	20-ft.	135 00



E. B. SAUNDERS,
96 Montgomery St., San Jose. Cal.

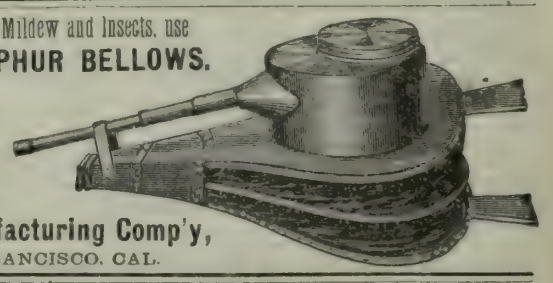
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"THE FAVORITE" SULPHUR BELLOWS.

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PRICE—6-inch, $2.50; 8-inch, $3; 10-inch $3.50.

Sent on receipt of Postal Order or Check, or by Express C. O. D.



All kinds of Bellows Made to Order.

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Redwood Duke, 13,368.

IMPORTED BERKSHIRES.

Prize winners at all the Fairs in California, and entire list of sweepstake premiums at State Fair, 1886. Importations made direct from England every year from the most noted breeders, selected from the best blood and most fashionable families of D'sbfaced Berkshires, regardless of cost, and all recorded in English and American Berkshire records. Young pigs from these importations, male and female, from different families, for sale at reasonable prices, and every pig guaranteed. Address, ANDREW SMITH, Redwood City, or 218 California St., San Francisco.

INCUBATORS.

THE PACIFIC INCUBATOR!



Awarded the Gold Medal at the **State Fair, Sacramento,** and at the **Mechanics' Institute Fair of 1884 1885 and 1886,** over all competitors as the **best** machine made. It will hatch any kind of Eggs better than a Hen.

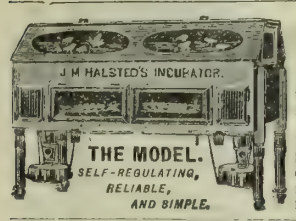
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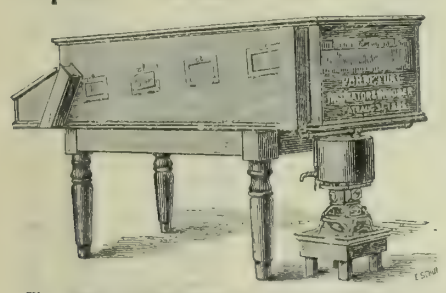
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Thoroughbred Poultry and Eggs
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THE
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The only Incubator in which eggs can be introduced daily and hatch successfully.

Requires no heat "regulator." The heat is scientifically graduated to suit the different periods of incubation.

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Dressmaking, Tailoring and General Manufacturing.

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THE LIGHTEST RUNNING,
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Stationary Engines and Boilers.

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Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery,
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Are you using **Wellington's Improved Egg Food for Poultry?** IF NOT, WHY NOT? Every Grocer, Druggist and Merchant Sells this Egg Food.

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At SACRAMENTO, Cal., Sept. 12 to 24, 1887.

$2000 in Cash for County Exhibits.

SPECIAL ATTENTION OF THE FARMING COMMUNITY

Is called, as well as the various Immigration Societies, Boards of Trade of the several Counties, and all others interested in bringing out the resources of their respective Counties, to the advantages offered by an Exhibition at the

STATE FAIR

Of the varied products of their counties. The supervisors of each county are invited to make a liberal appropriation, sufficient to pay the expenses of getting together an Exhibition of County Products. Premiums received can be returned to the treasury of each county making the appropriation, so that their respective counties would be written up and advertised at a small expense by an exhibition of this character. The Railroad Company transports the same free of charge.

THE LIVE STOCK EXHIBITION, connected with the State Fair, is sure to attract Eastern visitor anxious to view the resources of California.

APPLY FOR SPACE AT ONCE, as the Society is willing to devote the entire exposition building, if necessary, to displays of CALIFORNIA PRODUCTS. A NEW FEATURE has been added to the Premium List this year, in the shape of awards for a **Sheaf Display of Cereals.** Forty Sheaves, not less than 10 inches in diameter, of 10 varieties of grain are called for. Not necessary to be grown by exhibitor Notice is now given that samples may be gathered during harvest, and laid away for exhibition. Address the Secretary for Premium Lists and other information.

EDWIN F. SMITH, Secretary. L. U. SHIPPEE, President.

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District Fair, 1887.

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Of every variety and any quantity.

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The Life of Franz Liszt $1.25, and the **New Life of Mendelssohn,** $1.50, are the newest of books of Musical Literature. Send for lists.

Any book mailed promptly for retail price.

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FRUIT AND VEGETABLE EVAPORATOR.

MADE OF GALVANIZED IRON.

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The Cheapest!
The Most Durable!
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The Only One Absolutely Fire Proof!

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FIVE SIZES made with capacity of from 3 to 50 bushels per day.

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Cold Water Bleaching Soap

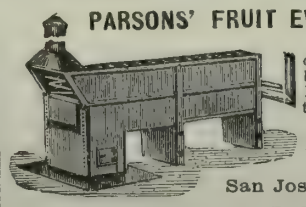
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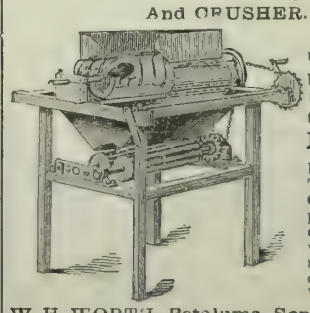
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My new improved Windmill; the whole right by States, or will lease on royalty. The fan can be closed to protect it from heavy winds. Agents wanted. Address the inventor, J. B. SOHN,
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A practical treatise by T. A. GAREY, giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F

S. F. Market Report

NOTE.—Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 15, 1887.

The past week has been favorable to the various crops, and also for harvesting. Advices from the different agricultural districts report farmers in more cheerful spirits, owing to the high prices, compared with last year, ruling for their products. European advices have reported a generally easy wheat market throughout the past week. To-day's cable is as follows:

LONDON, June 15.—Cargoes off coast, very inactive; cargoes on passage and for shipment, New York advices cause depression—all quotations nominal; Cal. wheat off coast, 39s 9d; English country market, inactive; Liverpool spot, New York advices cause depression; Liverpool Cal. wheat, 7s 8d to 7s 11d.

Foreign Review.

LONDON, June 13.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: Promising crop prospects have weakened the values of British wheat, and ample deliveries at the provincial exchanges have assisted the fall to the extent of 6d. The sales of English wheat during the week were 39,614 quarters at 35s 4d against 42,936 quarters at 31s 11d during the corresponding period last year. Foreign wheat was unfavorably affected toward the close of the week; the belief that a breakdown in the American ring was imminent, the presence of a whole fleet of arrivals off coast, and the slackened Continental demand combining to cause a drop in quotations of ten per cental. Flour has maintained values. The demand, however, is slackened. Thirty wheat cargoes arrived; 9 were sold, 5 are withdrawn, and 16 remained. At to-day's market, wheat values of all kinds were against the sellers. Flour, corn, and oats were dull. Linseed was firm at 1s advance.

Crops at the East.

CHICAGO, June 11.—The *Farmers' Review* says: The wheat harvest has been somewhat retarded in the South by the showery weather, but in other localities the rain has had a beneficial effect. Missouri has the best prospects for an even and abundant winter-wheat crop. The corn crop, all through the corn belt, is above the average in condition, and the prospects are good. Oats and grass have suffered from the dry weather. Potatoes are in good condition, and fruits promise a fair crop as a rule.

Potatoes at Chicago.

CHICAGO, June 13.—Old potatoes are scarce, and the market is firm, with higher prices. New potatoes are in good request and choice stock is firm, but small and grubby. The stock is rather dull. The receipts of last week were a little larger than usual, the great part of the stock coming from the South. California potatoes sell fairly well at $2.75 ₱ 100 lbs.

California Fruit in Chicago.

CHICAGO, June 14.—There is a good supply of California oranges on hand yet and the market is rather dull and easy, especially for common stock. Fair to choice goods are quotable at $2@3 ₱ box, but there is a good deal of poor stock on the market which is dull at 50c@$1 ₱ box. The arrivals of peaches are small, and there is little demand for that variety of fruit, for the reason that retailers find that they cannot handle common early peaches to their satisfaction. Some very nice early peaches, received from California in 20-lb boxes, sell at $2.50. Plums are quite plenty, and 20-lb boxes of California cherries and plums are sold at $2.25@2 50 ₱ box. Ten-pound boxes of choice California Black Tartarian cherries bring $1.50@1.75, and White Sweet $1.50@2. The bulk of the cherries on the market are of ordinary quality. Sour cherries are scarce, not enough coming in or selling to make a market.

CHICAGO, June 11.—Choice California apricots in 20-lb. boxes are selling at about $2. Supply of California dried fruit is small and still continues to rule firm at the following figures: Plums, pitted, ₱ lb., 11@12c; raisins, London layers, 20-lb boxes, ₱ box, $1.50@1.75; raisins, loose Muscatel, ₱ box, $1.25@1.35; raisins, California layers, ₱ box, $1.25 @1.35.

California Fruits in New York.

NEW YORK, June 12.—Green—Choice California apricots, 25c a dozen; black ox-heart cherries, 40c ₱ lb, and tangerines, 75c a dozen.

Dried—Malaga raisins are dull, but for California there is a good jobbing trade reported. Loose Muscatel, two-crown, $1.20@1.30; three crown, $1.50@1.60; London layers, $1.50@1.70.

Canned—California pears are unchanged.

New York Hop Market.

NEW YORK, June 12.—The tone of the market remains very firm. Purchases are not large, nor do dealers manifest any particular anxiety. Coast crop 1886, best, 21@23c; common to good, 15@20c; 1885, good to prime, 8@11c.

CANAJOHARIE, June 13.—A careful review of the hop situation in the Mohawk valley indicates that, barring possible ravages by vermin, one-third of an average crop will be harvested. The decrease in the acreage is fully one-third and the average of the yards is only fair. Many yards were not cultivated. Ten and 12 cents is being offered for 1885, and 22 cents for prime 1886, and it is estimated that the new crop will start at 25 and 30 cents.

Eastern Wool Markets.

NEW YORK, June 12.—When manufacturers can find a medium grade of fleece, which is seldom, they do not object to paying at least former rates. They are also occasionally induced to handle other grades when parcels appear extra attractive, but trading is still confined mostly to the local line of operators. The tendency of the market, however, is toward strength. Among sales were 1000 lbs of California scoured at 45c; 40,000 lbs of California fall at 15½c; 35,000 lbs of Eastern Oregon at 21@21½c; 20,000 lbs of Montana at 22@22½c.

In the Philadelphia market there has been only moderate inquiry for wool, but the few lots changing hands bring comparatively full prices. Among the sales were 20,000 lbs of Territory at 23c; 3500 lbs of Territory fine sorts at 15c; 17,000 lbs of Territory fine medium at 21c; 12,000 lbs of Montana medium at 25c; 20,000 lbs Montana medium at 25½c; 1500 lbs Montana medium at 27c.

In Boston the tone of the market shows considerable improvement, and prices are held firmer and in many instances higher. The principal demand has been in medium grades, and these find ready sales on arrival. Fine wools have not been very active, but are firmer, and to some extent held off the market. Among sales were 288,300 lbs Territory at 17@25c; 65,000 lbs Eastern Oregon at 19@21c; 57,000 lbs California spring at 17@18c.

Eastern Wheat Markets.

CHICAGO, June 14.—The wheat deal collapsed today. The enormous load proved to be more than the clique could stand up under. There was a conference of principals and agents last night, at which it was resolved to abandon the deal, it is said, in any event. The result was a panic in the market. There was a scene of indescribable excitement on 'Change all day. Nothing like it was ever witnessed on the Board of Trade. The climax was reached at 12.30 P. M. when the secretary announced from the gallery the failure of M. Rosenfeld & Co. July broke from around 78 cents to 74 cents in less than two minutes.

NEW YORK, June 15—12 M.—93½c for cash, 92½c for June, 88½c for July, 87¼@87⅜c for August, and 87½@88c for September.

CHICAGO, June 15—1 P. M.—Wheat weak and lower; cash, 70¼c; July, 72⅝c; August, 74⅝c. Corn—Easy; cash, 36c; July, 37c; August, 38¼c. Oats—Easy; cash, 24⅝c July, 25⅜c; August, 25½c.

Local Markets.

BAGS—Under large cross orders, with a few legitimate sales, the bag pool has succeeded in advancing Standard Calcutta on Call. It is claimed that outside parties are selling at from 6⅜ to 6⅝ cts, in lots to suit.

BARLEY—Throughout the past week, prices for both cash and options held strong. In the latter, transactions on Call were very large. To-day's sales were as follows:

Morning session: Buyer 1887—400 tons, $1.21½; 1500, $1.21¼; 100, $1.21⅜. Seller 1887, new crop—400 tons, $1.10; 500, $1.10½ ₱ ctl. Afternoon session: Buyer 1887—100 tons, $1.21¼; 100, $1.21. Seller 1887, new crop—100 tons, $1 10; 300, $1.10½ ₱ ctl.

BUTTER—Receipts are free, but the bulk coming in is off color, and placed with some trouble. High color, choice to extra choice, is in light receipt and can be readily placed at full figures. Dealers claim that with an accumulation of second to third grade butter, first grade must weaken off.

CHEESE—The market is heavy, with an easier tone reported. Supplies are gradually increasing, while the outlet is growing narrower under stronger Western competition.

EGGS—Strictly choice fresh laid are scarce and hard to get by dealers, who are bidding up so as to obtain supplies to meet their trade. Eastern eggs are in lighter stock, as are store eggs.

FLOUR—The market is barely steady for outside brands at the recent advance, but standard brands are firmly held.

WHEAT—The sample market continues quiet, but all parcels offered at quotations are taken at quotations. On Call, transactions continue large, with heavy transactions in seller '87, July and August options. The refusal of the Produce Exchange to admit Oregon wheat on the same basis as Californian, evidently inspires the bulls with more confidence, and consequently they appear more disposed to operate. Many farmers are taking advantage of the present situation and selling seller '87 options against their wheat crop, believing that the price now ruling on Call for seller '87 wheat is quite high compared with the markets of the world. Transactions on Call to-day were as follows:

Morning session: Buyer 1887—100 tons, $1.90. Seller 1887—100 tons, $1.83; 2500, $1.83¼; 800, $1.83⅜; 6200, $1.83½. August—100 tons, $1.83¾ ₱ ctl. Afternoon session: Seller 1887—1100 tons, $1.83¼; 1800, $1.83⅜. August—200 tons, $1.83¾ ₱ ctl.

[COMMUNICATED.]

Market Information.

Cereals.

Harvesting is becoming more general in favored sections, with present indications favorable for it to become general in all sections within a fortnight. Returns sent in give an increased yield of wheat to the acre and of better quality than that first harvested. Although the yield is more, still it does not warrant raising the estimate heretofore given that the wheat crop will not exceed 900,000 tons (about 500,000 tons surplus) and the barley crop over 325,000 tons. The bears estimate the crop of both cereals considerably higher than the above, while the bulls place it lower than above given.

So as to work to better advantage, the wheat bears have, so it is reported, secured a daily paper to write down wheat; and the bulls another paper to write it up. If this is true, farmers and dealers will do well not to be influenced too much by these publications, for operators do not spend their money for nothing.

A Paris circular just received estimates that the importing countries of Europe will require to import from May 1 to August 31, 1887, about 120,000,000 bushels of wheat, which is 20,000,000 bushels more than has been pointed at by previous advices printed in these columns. North Russia, from the opening of navigation to May 20, has not exported any wheat to Northwestern Europe by sea, neither has there been any wheat of consequence imported from Russia at Konigsburg, Germany, by rail. In south Russian ports wheat stocks are small and fresh supplies also are small, and what little there is is being absorbed by Mediterranean ports. Indian wheat shipments have, as usual, been somewhat increased during May as compared with April.

Eastern mail advices are as a whole still more favorable to the crops in the Northwest, but yet they do not indicate that the improvement will offset the unfavorable weather in last April and May.

The past week corn was depressed and easier, under heavy receipts from the southern counties, and only a fair demand. Dealers claim that with higher overland freights in next month, the market will show more strength.

Throughout the week barley ruled steady, with a strong tone. The consumption continues to increase. It is claimed that brewers and also Eastern buyers are quietly taking in the more choice grades under the impression that a still higher range of values is not at all unlikely before the close of next month.

Oats have held to steady prices. Receipts are only fair, but the demand is limited owing to high prices. Crop advices are favorable from Oregon and Washington Territory.

Rye is very scarce and prices high, but buckwheat is weak, with a light call reported.

The first carload of this season's crop of California wheat, raised on the ranch of L. M. Hickman at Keyes Station, Stanislaus county, arrived at Port Costa Friday. The first wheat last year arrived at Port Costa June 5th.

The Eastern wheat deal had a severe setback on Monday and Tuesday last, but at the close more confidence is felt. The break in prices was due to the Chicago Board of Trade allowing wheat to be regular outside of that in the authorized warehouses. As the bulls fought this proposition and were defeated, many became nervous and began to unload, causing a panic to set in, entailing heavy losses, with several suspensions. The bears were not benefited, owing to the bull houses suspension not allowing them to pay margins on the lower prices.

Feedstuff.

Oilcake meal is strong at last week's advance.

Bran and middlings are easier at some shading in prices.

Ground barley is strong and in good demand at full figures.

All kinds of ground feed are in good demand, owing to the poorer pasturage.

Hay is very strongly held. Dealers express the belief that the market will hold strong throughout the year, with a strong probability that a higher range of values will obtain, owing to the poor pasturage, large consumption and only an average crop.

Fruits.

Cherries continue to come in freely, with the quality greatly improved over last year. Canners continue to buy white cherries quite freely, paying as high as 8 cts ₱ lb for choice Royal Anns.

Apricots and peaches are in heavier receipt, with lower prices ruling. The quality is not up to last year's, owing to the trees bearing too heavy.

Choice pears and apples are wanted, but off qualities are slow and hard to sell.

Blackberries are coming in more freely, causing prices to shade off.

The high prices ruling for strawberries operate against canners.

Raspberries are working to lower figures under freer receipts and only a moderate demand.

Figs are coming in more freely. The demand is only fair.

Oranges are slow. Limes and lemons are in fair demand.

The stock of dried fruits is very light, with no apples, prunes, peaches, apricots or pears to be had. A sample of dried apricots of this season's curing was received yesterday from Fresno by G. W. Meade & Co.

Raisins are in light supply, with a fair demand ruling. Choice grades are very firm at full figures.

Live-Stock.

Beef cattle continue to rule weak, under a moderate demand and free offerings. The quality of the bullocks coming in is, as a rule, first-class. Mutton sheep show a firm tone, but still the consumption is not over-large for the season of the year. Stock hogs are in better request; hogs suitable for the block are in fair supply. In milch cows, there is nothing doing. In draft horses, considerable trading is reported, but at unchanged prices. General utility horses are in good demand.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 8c; first grade, grass fed, 7@7½c per lb.; second grade, 6@6½c; third grade, 4½@5¼c.

MUTTON—Ewes, 6c; wethers, 7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@8½c; small, 6@8c.

PORK—Live hogs, 4¾@5c for heavy and medium; hard dressed, 7½@8¼c per lb; light, 4½@5c; dressed, 7@8c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

String beans and peas are strong at an advance, under light receipts.

Asparagus has a wide range, with extra choice in light supply.

Tomatoes, cucumbers, summer squash, and green corn, continue to decline under free receipts.

Heavy shipments of potatoes are being made to points east of the Rocky mountains. The local market, under heavy receipts, is lower and weak, at the decline.

Under heavy receipts and only a moderate demand, onions are weak and lower.

Green peppers are lower and weak.

Cabbages and root vegetables are barely steady.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	272,724	268,549
In port, disengaged	105,655	37,600
In port, engaged	20,523	19,180
Totals	397,902	325,329

The above gives a carrying capacity as follows: 1887, 636,643 short tons; 1886, 320,526 short tons; increase over last year, 116,117.

Poultry has ruled fairly steady throughout the week, with choice conditioned fetching good prices, and hard to get.

Beans are in good inquiry, with the more choice grades hard to get.

Hops for future delivery are in better demand. While buyers appear indifferent, still they are willing to pay a slight advance for a round parcel. Spot hops are in light supply, with a fair inquiry. Choice is out of the market.

Wool moves off quickly at last week's advanced prices. Receipts are light, as the spring clip is about marketed.

Tallow is scarce, and if well cared for and packed, will fetch full figures.

San Francisco, June 15, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, June 15, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 75
Butter	1 75	@	2 25
Pea	1 80	@	2 15
Red	1 40	@	1 65
Pink	1 25	@	1 60
Large White	1 90	@	2 15
Small White	1 75	@	2 25
Lima	1 75	@	2 50
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY			
California	5¾	@	6¼
German	6¾	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	18	@	20
do Fancy br'ds	21	@	22
Pickle roll	20	@	24
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	9	@	10½
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	27½	@	—
do, store	22½	@	25
Ducks	—	@	—
Oregon	—	@	—
Eastern	20	@	—
FEED			
Bran, ton	20 00	@	—
Cornmeal	28 00	@	—
Gr'd Barley ton	25 00	@	26 00
Hay	9 00	@	14 50
Middlings	30 00	@	—
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	50
FLOUR.			
Extra, City Mills	4 95	@	5 70
do Co'untry Mills	4 45	@	5 45
Superfine	3 70	@	4 45
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 17½
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 15	@	1 25
Yellow	1 10	@	1 20
Small Round	1 20	@	1 30
Nebraska	1 07½	@	1 15
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 25	@	1 50
Wheat milling			
Gilt edged	1 90	@	2 00
do choice	1 82½	@	1 87½
do fair to good	1 77½	@	1 80
Shipping choice	1 85	@	1 90
do good	1 80	@	—
do fair	1 75	@	—
HIDES			
Dry	14	@	16
Wet salted	7½	@	8½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Red	40	@	60
Silverskins	50	@	75
NUTS—JOBBING.			
Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	—	@	—
Early Rose	—	@	—
Cuffey Cove	—	@	—
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	—	@	—
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	—	@	—
Peerless	—	@	—
Salt Lake	—	@	—
New Potatoes	50	@	75
POULTRY AND GAME			
Hens, doz	5 50	@	7 00
Roosters	5 50	@	11 00
Broilers	3 00	@	7 00
Ducks, tame	5 00	@	6 50
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 00	@	1 25
do Goslings	1 15	@	1 65
Wild Gray, doz	—	@	—
Turkeys, lb	17	@	20
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9½
Medium	9	@	10
Light	10	@	11
Extra Light	11	@	12½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal.	12½	@	14
do Eastern	14	@	14½
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	2	@	10
Mustard, white	2½	@	3
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	10	@	13
3d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC			
SPRING—1886			
Humboldt and Mendocino	21	@	26
Sact'o valley	18	@	24
Free Mountain	21	@	26
N'hern defective	—	@	—
S Joaquin valley	13	@	19
do mountain	16	@	21
Cava'v & Pet'l	16	@	21
Oregon Eastern	18	@	25
do valley	20	@	27½
Southern Coast	11	@	18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, June 15, 1887.

Apples, bx com	35	@	75
do choice	1 00	@	1 50
Apricots, bx	45	@	1 25
Bananas, bunch	2 00	@	3 25
Blackberries, ch	9 00	@	13 00
Cantelopes cr	—	@	—
Cherries whit bx	40	@	60
do black bx	30	@	50
do Royal Ann	70	@	1 00
Cherry plums	20	@	45
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants ch	2 50	@	3 00
Gooseberries lb	2	@	6
Figs lb	10	@	15
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	10 00	@	11 00
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 50
do Cho'ce	2 00	@	2 50
do Navels	3 00	@	4 50
do Panama	—	@	—
Peaches, bx	4⅛	@	75
do bask	25	@	50
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	50	@	75
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries cr	1 00	@	1 25
Strawberries ch	5 00	@	10 50
Watermelons 100	—	@	—
DRIED FRUIT			
Apples, sliced, lb	—	@	—
do evaporated	12½	@	13½
do quartered	13	@	14
Apricots	13	@	15
do evaporated	20	@	25
Blackberries	13	@	13½
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	—	@	—
do pared	—	@	—
do evaporated	—	@	—
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8	@	12½
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus ₱ bx	75	@	1 25
do ext'a choice	1 50	@	2 50
Okra, dry, lb	15	@	20
do green box	—	@	—
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	10	@	12½
Pumpkins per ton	—	@	—
Squash, Marrow fat, too	20 00	@	25 00
do Summer bx	50	@	1 00
String beans lb	2½	@	6
Tomatoes box	50	@	1 25
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	75	@	1 00
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, ₱ lb	15	@	25
Garlic, lb	2	@	3½
Green Corn, doz	10	@	15
do sweet doz	20	@	25
do large box	—	@	—
Green Peas, sk	65	@	90
Sweet Peas	1 00	@	1 50
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	20½
Rhubarb bx	75	@	1 25

ANGLO-NEVADA

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—OF—

SAN FRANCISCO, CAL.

Capital, - $2,000,000, paid up.

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INSURE YOUR BUILDINGS AND GROWING CROPS.

PHŒNIX ASSURANCE COMPANY

OF LONDON, ENGLAND, ESTABLISHED 1782.

Losses paid to date, - - $78,612,829.46.

WESTERN ASSURANCE COMPANY

OF TORONTO, CANADA, ESTABLISHED 1851.

Deposits in California, value, - $130,000.

BUTLER & HALDAN, Gen'l Agents for Pacific Coast

413 CALIFORNIA STREET, SAN FRANCISCO.

For Sale—An Ideal Vineyard

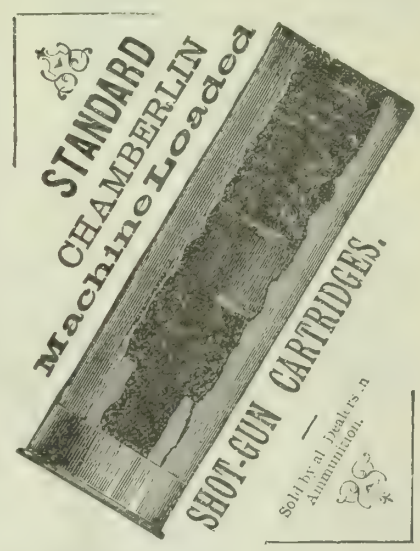
THIRTY-ACRE TRACT

(Nearly square), Mountain View, Santa Clara County, Cal. Three miles from Railroad station, toward foothills, warm belt. Mountain View is 36 miles south of San Francisco, 12 miles from San Jose, and about 4 miles from the great Stanford University grounds. It is separated from the ocean by the high Coast Range, and possesses a remarkably genial climate. Three hundred olives ("Picholine"), one to four years old, surround the Vineyard; most of them planted spring of 1885—two years old when planted. There is a carefully selected home orchard of about 80 thriving trees, two years old when planted—1885—and two large oak trees reserved for the homestead lot.

The whole Vineyard planted in Resistant vines (Phylloxera-proof), Riparia rooted-cuttings and California Seedlings; the greater part planted spring of 1885, the reminder in 1886. About one hundred, scattered over two blocks, were experimentally grafted, spring of 1886, to "Crabb's Black Burgundy," and have made excellent growths. Soil is gravelly loam, easily worked, and, as analyzed at the State University, particularly adapted to vines and fruit Every foot of soil cultivable. The vines are planted on the celebrated "Chaintre system," long pruning (the latest and best system, now extensively adopted in France and Algiers), but can be trained otherwise.

Reference: CLARENCE J. WETMORE, Secretary State Viticultural Commission, 204 Montgomery St.

J. S. BUNNELL,
Room 5, 320 Sansome St., S. F.



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SOLICITORS.
252 MARKET ST. S.F.
ELEVATOR 12 FRONT ST. S.F.

SPECIAL ANNOUNCEMENT.

THE GREAT AUCTION SALE

—OF—

Residence Lots!

—AT—

PACIFIC GROVE, MONTEREY, CAL.

WILL TAKE PLACE ON

Tuesday, at 1 P. M.....June 28, 1887
Wednesday, at 10 A. M.....June 29, 1887
Thursday, at 10 A. M.....June 30, 1887

BY ORDER OF THE

PACIFIC IMPROVEMENT COM'Y.

TERMS OF SALE:

ONE-FOURTH CASH; balance in three equal payments, due in six, twelve and eighteen months, with interest at the low rate of 6 per cent per annum.

NOTICE.—In order to accommodate the large number of persons who will attend this sale, the Southern Pacific Company will run a special

EXCURSION TRAIN TO MONTEREY

On TUESDAY.....JUNE 28, 1887

Leaving SAN FRANCISCO at 7 A. M.,
And Stopping at Principal Intermediate Stations.

ROUND-TRIP TICKETS,

$3.00—FOR THIS TRAIN—$3.00

GOOD FOR RETURN

On Special Excursion Train leaving Monterey at 5:30 P. M., June 28th, and on Regular Trains, June 29th, 30th, and July 1st and 2d, 1887.

THIS SALE WILL BE CONDUCTED BY

S. W. FERGUSSON, Manager, and C. C. THAYER, Auctioneer of the

Southern California Land and Immigration Company.

For maps, catalogues, and other information, apply at the offices of the

SOUTHERN CALIFORNIA LAND AND IMMIGRATION COMPANY,

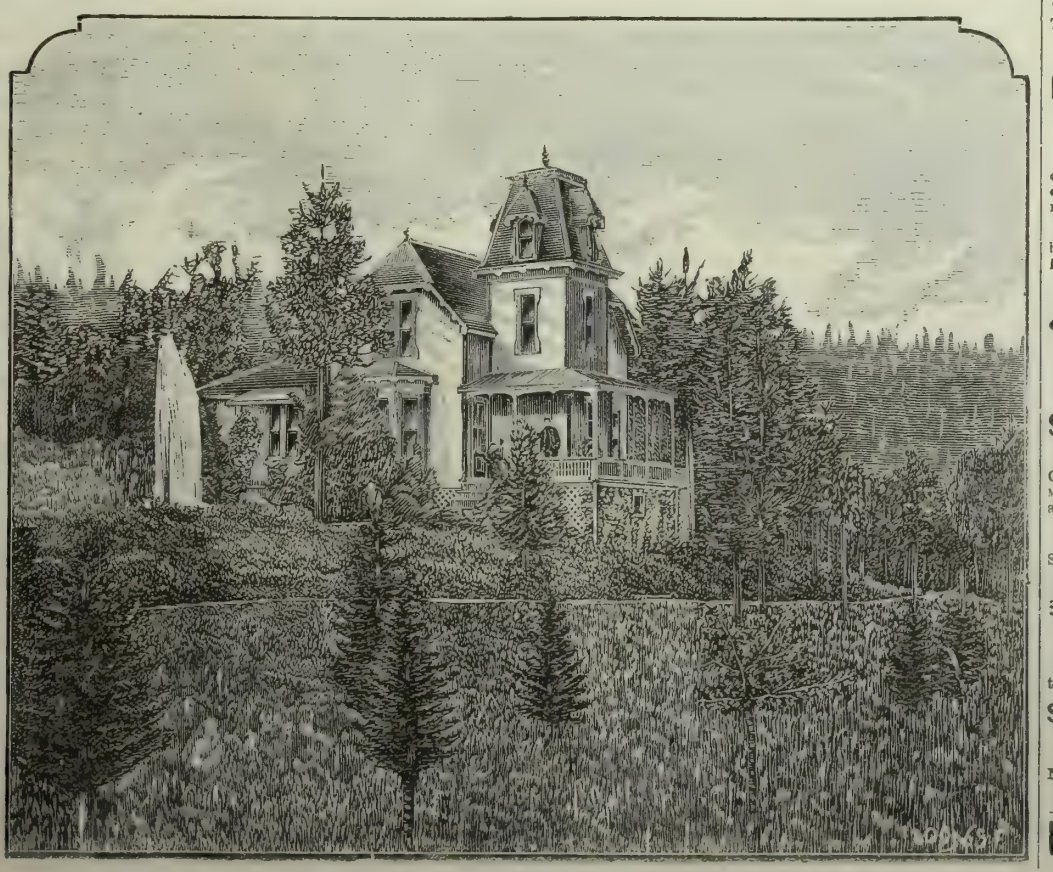
No. 10 California St., Room 17, and No. 321 Montgomery St., San Francisco.

MONTA VISTA.

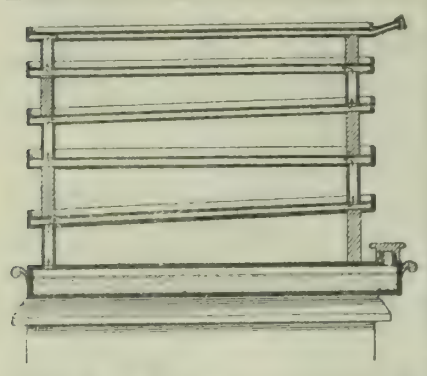
This favorite resort of the "Sierras" will open for the season June 6, 1887. For climate, scenery, comfort and rest it is unsurpassed by any of the noted places of the State. It is particularly adapted for families who desire ample grounds and the luxuries of ranch life. It is of easy access, being within five minutes' drive of Dutch Flat Station on the C. P. R. R. A tourist train will be placed on this route June 1st. Parties of fifteen or more will be formed at different times during the season, and a special rate of $8.50 for round trip (good for six months from issue) can be procured by applying to the following address:

MRS. C. E. KINNEY,
714 Bush Street, San Francisco, Cal.
Terms, $10 per week.

J. CHESTER, Editor CALIFORNIA PATRON, No. 40 California Street, will attend to commutation tickets June 20 h, for "Monta Vista," summer resort. Round trip ticket good for six months, $8.50.



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Common Sense Evaporator

(Of NEWARK, OHIO).

Where known Drives all other Fruit-Driers out of the Market.

Patented 1886.

12,000 ALREADY SOLD,

And orders for 34,000 more. Perfection of simplicity, cheapness and rapidity of work. Thirteen Dollars will Buy a Machine that will do better work and more of it than any $50 Evaporator ever offered for sale, and in like proportion to an indefinite capacity.

Remember this is an Entirely New Departure,

Which completely revolutionizes the dried fruit industry. All fruits perfectly cured in from one to two hours, and with

No Possibility of Burning and No Need for Sulphuring.

It may seem incredible, but it is a fact For circular and full particulars, address

BACHELDER & COATES,
Sole Proprietors for California,
Napa City, Cal.

Agents Wanted—Best selling invention of the age.

HORTON & KENNEDY'S

FAMOUS
ENTERPRISE
Self-Regulating
WINDMILL
Is recognized as THE BEST.



Always gives satisfaction. SIMPLE STRONG and DURABLE in all parts. Solid Wrought-iron Crank Shaft with DOUBLE BEARINGS for the Crank to work in, all turned and run in adjustable babbitted boxes.

Positively Self-Regulating.

With no cone springs, or springs of any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills etc., kept in stock. Address,

HORTON & KENNEDY.
GENERAL OFFICE AND SUPPLIES (as always before
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San Francisco Agency—JAMES LINFORTH
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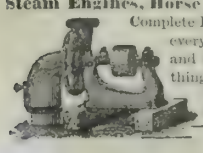


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Lands For Sale and To Let.

A GOLDEN OPPORTUNITY

—TO—

Invest in a Fresno Vineyard

We have for sale, till July 31st, a one-half interest in a fine vineyard ranch, 266 acres, all level and susceptible of easy irrigation, situated near Minturn, Fresno county; 135 acres in best varieties wine and raisin grapes three and four years old, in full bearing; low estimate is 350 tons this year; 15 acres in 8-year-old orchard and table grapes, full crop; 8 acres in 8-year-old almond in full bearing; 50 acres alfalfa; 40 acres grain. Entire tract under rabbit-proof, lumber fence; amply cross-fenced. Main dam, gates, ditches, dykes and water, all belong to premises. No litigation, no riparianism, no costs. Undoubtedly best system of irrigation in the State; beautiful reservoir. Two good dwellings picturesquely located beneath the beautiful foliage of 9-year-old ornamental trees. Two very large barns, an abundance of shed-room. Agricultural implements, machinery, etc. Horses, hogs, mules, cattle and sheep. The object in taking a partner is to build wine-room, storage house and adobe cellar, and must be sold before July 31st in order to utilize the coming immense crop. Price $20,000. For full particulars address us or (better) come and see the property.

STATHAM & HYDE,
Real Estate Agents, Fresno, Cal

A NEW COLONY

On the new extension of Southern Pacific Railroads, on the lands belonging to R. T. BUELL, Esq., near Los Alamos, Santa Barbara county, Cal. Parties desiring to visit the property now, can go via San Luis Obispo and take the cars from thence to Los Alamos, thence by stage to the Colony. **20,000** acres of the best lands in California, subdivided into 20, 40 and 80-acre farms; $20 to $30 per acre. INTERNATIONAL IMMIGRANT UNION, 401 California St., San Francisco.

20-ACRE TRACTS.

Fine, rolling, cleared, reddish-brown land, under cultivation in the **Shasta Fruit and Raisin Colony.** Twenty acres for $500. Terms: $200 cash, and balance in installments to suit purchaser, at 8 per cent per annum. Any tract will be set in raisins or fruit and brought to bearing by proprietor of colony, if desired Send stamp for circular, and state how you wish the installments. GRIFFIN BROS., Cottonwood, Shasta Co., Cal.

WEST COAST LAND CO.

TEMPLETON, SAN LUIS OBISPO CO., CAL.

Home of Wheat, Fruit, Wine and Olive; 15,000 acres sold in past 8 months to 220 settlers, representing a population of 1100; 49,000 acres—small subdivisions—average, $22.50 an acre; ¼ cash, balance 5 years, 6 per cent. Catalogues and maps free. C. H. PHILLIPS, Manager.

Engraving. Superior Wood and Metal Engraving, Electrotyping and Stereotyping done at the office of this paper.

Small Farms on Easy Installments.

GRAIN, FRUITS and VEGETABLES RAISED WITHOUT IRRIGATION.

A choice portion of the Reading Grant, two miles from the town of Reading, hitherto reserved for farming purposes, now divided into 20-acre lots and thrown open to purchasers. River bottom soil, sandy loam and very productive. Prices from $30 to $50 per acre. Other agricultural lands, in lots to suit purchasers, at from $10 to $25 per acre. For circulars and maps call on

FRISBIE & WILEY, Redding or Anderson, Shasta Co., Cal.

FRESNO COUNTY.

BRIGGS' SELMA TRACT.

This most desirable tract, comprising 1280 acres of first-class gray ash and sandy loam land (situated one and one-half miles from the fast-growing town of Selma, the second in the county, and two miles from Fowler, both being S. P. R. R. towns), has been subdivided and will be sold in 20, 40, 60 or 80-acre farms. The distributing ditches are now constructed, and convenient roads are laid off. The main canal is 60 feet in the bottom.

THE WATER RIGHTS

Consist of stock in the canal entitles and to the ownerone-eighth of 2 feet 6 inches of water, to 20 acres, being 2½ times the usual amount supplied for colonies. The owner of the water stock has a pro rata vote in the management of the canal, and the expense per year is $3.75 on a 20-acre lot.

A school-house is to be erected on the land this year, and it has two within two miles of it at present. Fresno, Selma, Fowler and Kingsburg are good local markets for produce. Opportunities to labor with or without teams are abundant, and land can be rented for wheat-growing in the neighborhood. The health of this region is perfection, and, in common with the plains generally, is an excellent sanitarium for persons affected with pulmonary and rheumatic complaints.

The best raisins in the world, wines unsurpassed, the finest grapes, the best peaches, apricots, plums, prunes, nectarines, figs and olives, and in fact all the choicest fruits and vegetables of the world are grown in this favored region. Raisin vines three to six years old yield per acre from four to seven tons, and increase to eleven. Wine grapes three to six years old yield from four to eleven tons per acre. Alfalfa is cut from four to six times a year, and yields from one to two tons per acre at each cutting.

Two good cows and 100 hens furnish more than half the living for a family, and can be kept, with a team, on three acres of alfalfa, the growth of which is incredible in this favorable combination of soil and climate.

A comfortable house for a small family can be built for $150.

The low price, taking into consideration water and transport facilities, should especially recommend this to seekers of homesteads. One-half already sold. The cheapest Colony land in the county, on very easy terms to actual settlers.

☞For further particulars call on or address

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CHAS. H. SINCLAIR, Supt.

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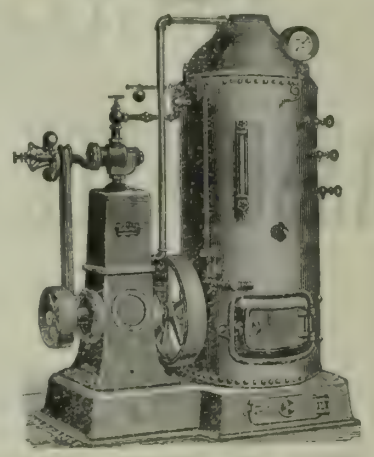
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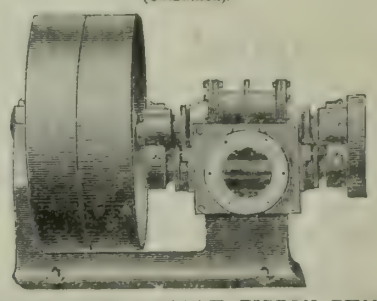
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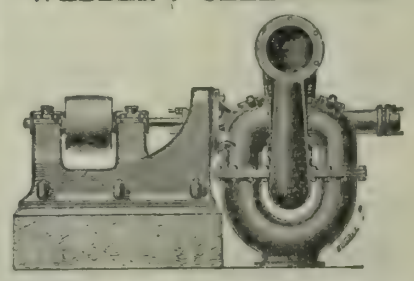
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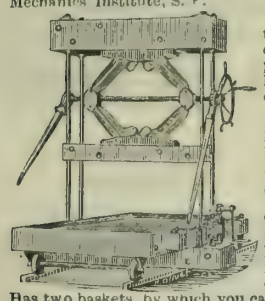
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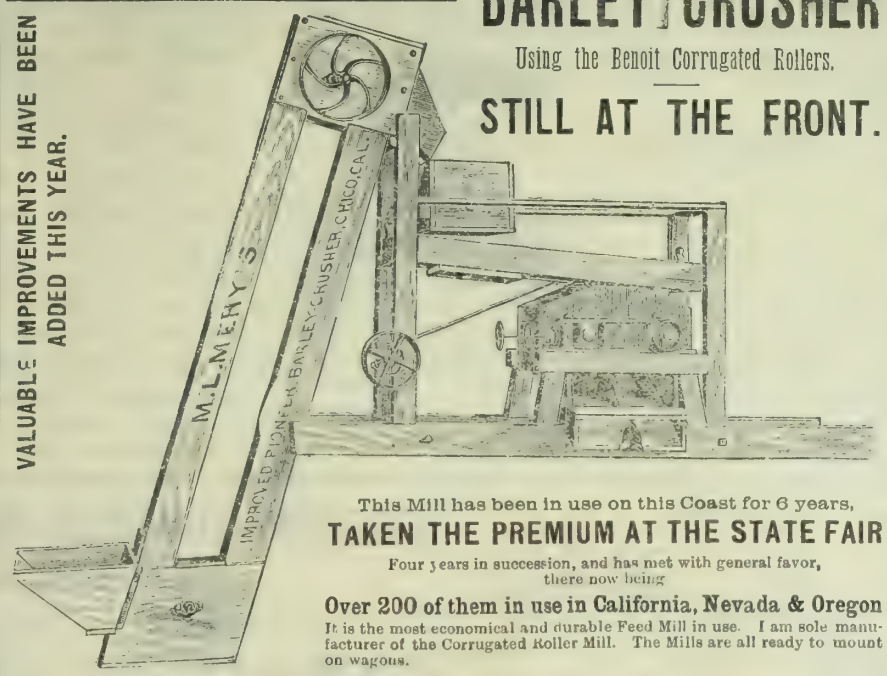
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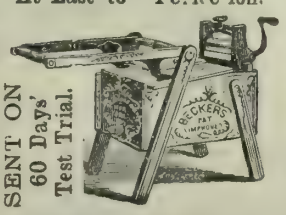


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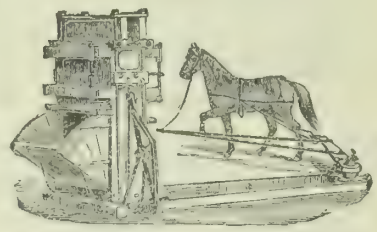
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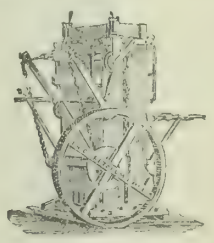
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Does its own Tramping. Feeds at Side, near the Bottom.

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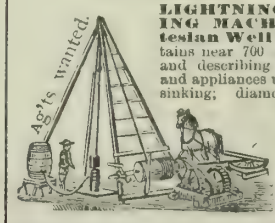
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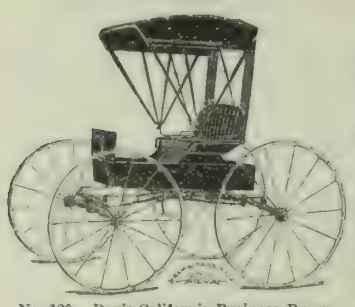
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These Buggies have been sold on this Coast for four years and have made a fine reputation.

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AXLES. These are 1-inch DOUBLE COLLAR STEEL.

SPRINGS are SWEDE STEEL OIL TEMPERED, polished and fully warranted.

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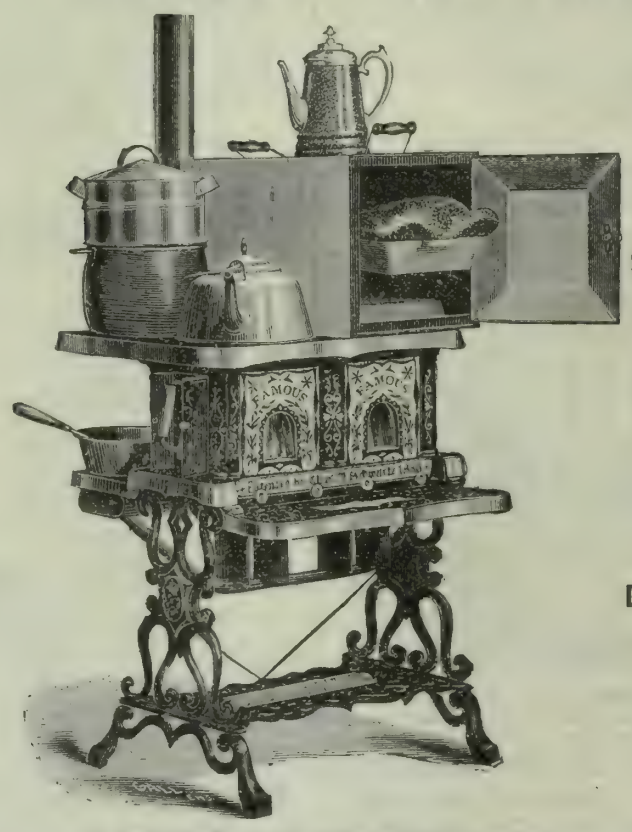
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Regular Warehouse for S. F. Produce Exchange Call Board.

Storage Capacity for 75,000 Tons of Grain.

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Stockton, Cal.

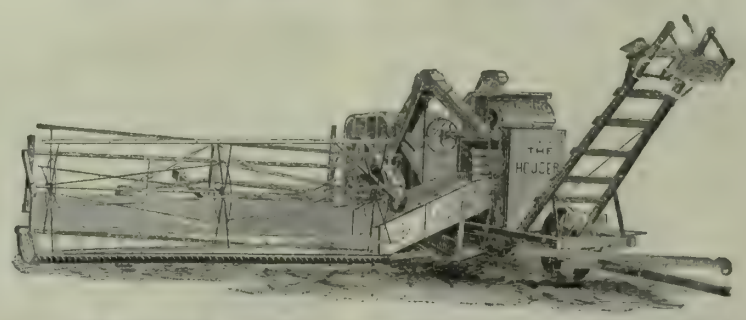
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NONE EVER RETURNED TO THE WORKS

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They are built for 1887 with 30-inch Cylinder and 42-inch Separator. We are also building them with 46-inch Separator.

They Cut, Thrash, Clean, and Sack

For less than $1.00 an acre, and place the grain in the sack at less cost than the old method of putting it in the stack. **They Save Three Bushels an Acre** over and above Heading and Thrashing, or enough grain to pay the cost of harvesting.

THEY REQUIRE FROM THREE TO FOUR MEN AND TWELVE TO TWENTY-FOUR ANIMALS, according to width of cut and condition of grain. ☞ See Testimonials and large cut of the Houser, outside pages, RURAL PRESS, issues of January 15th and 29th. Call at Works. Send for Circulars. Address

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TWENTY-FOUR PAGE EDITION.

Vol. XXXIII.—No. 26. SAN FRANCISCO, SATURDAY, JUNE 25, 1887. $3 a Year, in Advance. Single Copies, 10 Cts.

Caught on a Jury.

We were quietly walking along the street the other day absorbed in a "brown study," when we were suddenly made aware that we were an integral part of the great body politic. The trance was broken by the hoarse voice of a constable, with an authoritative accent, saying "I want you on a jury." Perhaps many of our readers have been unceremoniously nabbed in this way. Really, if there is anything more provoking than another, it is to have a bailiff drop in with a summons to sit on a jury when you are in the thick of business, customers waiting or engagements pressing. What shall be done? Get excused, but there is the rub. Pressure of business is not a good cause of exemption, and then the average judge seems inclined to think that the busy man of affairs is all the more competent to adjust the tangled affairs of others. And the judge is right, so go right along repeating in your mind one of the denials of the "mind-cure" people, "there is no evil," or better still, Pope's aphorism, "whatever is, is right." The duty of intelligent and competent men serving the public in this capacity needs to be urged, for it has come to be a standing complaint that the best men shirk the responsibility and leave the jury-box to be filled by loafers who hang around courthouses waiting for a chance to pick up a few dollars in this way. It is partly owing to this fact that trial by jury has fallen into bad repute, and is considered the refuge of lawyers who are conscious of having a poor case. So go joyfully along to your fate, remembering that some one must suffer for the good of the people.

You will find the jury a curious leveler; it is really a very democratic institution. In a jury recently impaneled in this city, there were 12 men representing nine different occupations. There were two merchants, two carpenters, one builder, a fisherman, jeweler, house painter and a reporter. They were all in different ranks of life—one was rich, several tolerably well-to-do, the others poor. There were two Catholics, one Jew—the rest were Protestants. All these persons, grouped in a jury-room, joined in a common discussion with equal voice. Whatever may be said of the verdict, the jury levels all ranks, equalizes all citizens, brings together the social extremes, bridges the gulf of caste and quality. Perhaps no more significant illustration of the spirit that pervades our free institutions can be seen than in a court, where the vast interests of millionaires or corporations hang for a verdict on the consenting voice of a few plain men who threw aside their jack-planes and leather aprons to serve on the case.

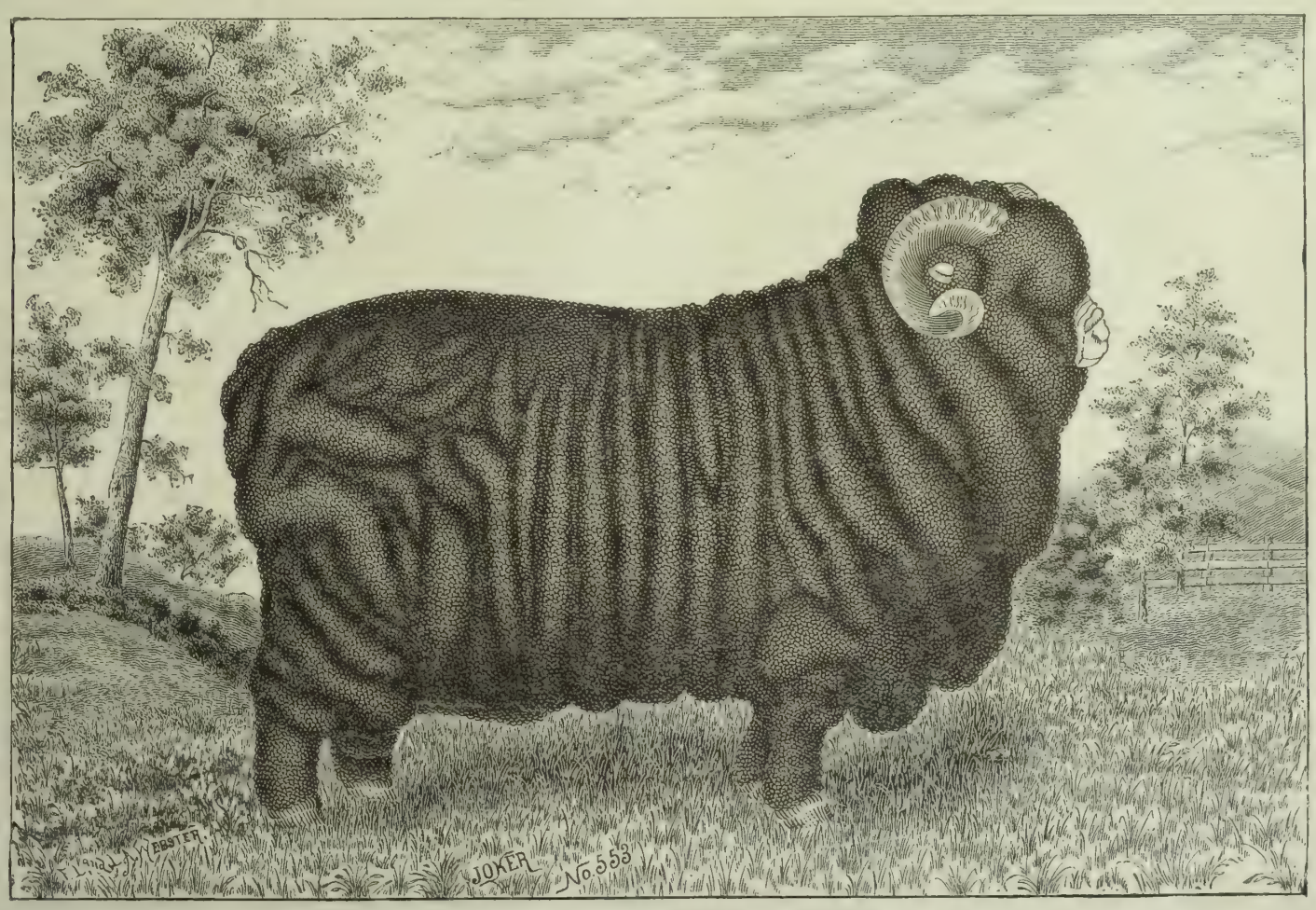
You will also find the jury a great educator. It may be just the kind of education you need, for it not only imparts a wide knowledge of the law, but tends to inspire respect for Government and social order. A man who serves a term on a jury can hardly go away without increased reverence, not only for individual rights, for justice and equity, but also admiration for that political structure that civilization has evolved for the protection of life, honor and property.

Silk Culture.—The State Board of Silk Culture held a meeting Saturday, June 18th, Pres. Trumbo in the chair, and Messrs. Carter, McDonald and Sellers present. A new reeling machine was reported to be on the way hither from Milan. It took the first prize at the Turin exhibition last year, and is one of the most perfect machines known. The Filature Committee said that cocoons are now coming in freely from the interior, especially from Fresno county, but that the demand is in excess of the supply. In the reeling school four young ladies are receiving instructions from the secretary, Mrs. Rienzi, who acquired a thorough knowledge of the work during a residence of several years' duration in Italy. There is room for a few more free pupils at the rooms, 21 Montgomery ave. The Board will make an exhibit at the approaching Mechanics' Fair.

Swiftly Built.—Among dispatches from Chicago it has been noted that the late corner in wheat is responsible for a miracle in the way of rapid building; its hero is an elevator-man named Hess. Beside the tracks of the St. Paul road, at the corner of Elizabeth street and Carroll avenue, where, on the 1st day of June, there was only a hole in the ground, now stands, complete in every department, an elevator of 300,000 bushels' capacity. It was built from foundation to roof-tree in 14 working days, and the sixteenth from the commencement of the foundation, 10,000 bushels of wheat were placed in one of its bins. The elevator is one of the regulation pattern, and has no lumber in it except that which is perfectly kiln-dried. It is stated that the elevator companies could safely have promised to have 10,000,000 bushels' additional capacity prepared for the last of the month.

A Hindoo broker at Chandanagore, India, has written to the Associated Press in New York City, asking for daily cable quotations of cotton receipts at all United States ports and of cotton futures at New York.

Serpent Skin is coming into fashion as a covering for books.



JOKER, A FAMOUS PRIZE-WINNING AMERICAN IMPORTED MERINO RAM.

A Fine Merino.

It is about the time of the year that flock-owners turn their attention to paternity in their flocks, and with a view of making good models more familiar we give herewith a portrait of an improved merino ram which has made a good record for himself and whose form shows many good points. He is "Joker" (553, Vermont Register), and was bred by J. T. Stickney, of Shoreham, Vt. He is a son of Wall Street and a grandson of Rip Van Winkle. Joker won the first prize of $100 at the National Shearing in St. Louis in 1886 for the best and heaviest fleece. He is owned by L. E. Shattuck, of Stanberry, Mo., who has a flock containing many prize-winners. At the same shearing in St. Louis, one of Mr. Shattuck's ewes won $100 for the best and heaviest fleece, and in the aggregate he took one-half of all the money offered for fine wool classes. He had seven ewes at that shearing which were suckling young lambs, and still made an average of 22½ pounds of wool, and three rams of his own breeding made an average of 37¼ pounds of wool—one year's growth. Mr. Shattuck breeds for large bodies and heavy fleeces. He exhibited at the State fairs, at the St. Louis fairs and at the New Orleans Exposition, and has made excellent records. Joker started out right by winning the first prize in the face of much competition at the State Fair in his native Vermont in 1885. His career at the West justifies the great claims made for him as a notable representative of the American improved merino type of sheep.

Desirable Seeds.—Seeds of the umbrella or stone pine (*Pinus pinea*) and of the Acanthus (*A. mollis* and *A. lusitanicus*), from the Italian Ministry of Agriculture, will, on application, be sent gratuitously by John S. Hittell, 1025 Hyde street, San Francisco, to the head gardeners of all public and private parks of California who have not already received them. These plants are highly desirable for ornament, and the pine is valuable for fixing drifting and for cabinet-work.

The hatchery established by the Fish Commission, half a mile from the mouth of Rogue river, is a pronounced success.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions

In the Valley of the Sespe, Ventura County.

EDITORS PRESS:—In pursuing our way down the Santa Clara valley of the south, about ten miles above Santa Paula, we come into the valley of the Sespe. This valley descends from the north side, and extends to within about two miles of Santa Paula, where its river forms a junction with the Santa Clara river, and loses its identity. Between the confluence of the valleys, where we first approach the Sespe, and the meeting of the streams, the Sespe embraces, it would seem by common consent, the whole area between mountains on both sides of the Santa Clara river, extending some eight miles up and down the valley. Out of this double valley, we ascend the Sespe valley proper, some three miles to its termination, a short distance above R. Wilkins' bee ranch, heretofore described by us in the RURAL PRESS. The valley is here cut off by precipitous mountains, and this fine, clear stream comes dashing from its mountain canyon over its rocky bed, and for the first two miles continues running so rapidly that it is sometimes called "the raging Sespe."

Mr. Wilkins has deeded to his daughter, Mrs. McIntyre, the very fine property partially occupied by his apiary. It is a beautiful place, with its dwelling, orchard and garden, surrounded by picturesque scenery and approached by a narrow wagon-road cut in the rocks on the western side of the Sespe.

Jepson's Ranch.

Below this one-fourth of a mile, where the valley on the west side has widened, we drive up to the unpretentious yet attractive place of T. W. Jepson. The luxuriant growth of vegetation, the fine rows of large, ripe strawberries growing in the garden and along the lower hillside, the cheerful hum of bees not far away to be heard all day long in all fine weather, the spray of bright, clear water piped down from a spring on the hillside, the exhilarating effects of sights and sounds, the inspiration felt in the very atmosphere, all tempt us to accept without hesitation the generous invitation extended by Mr. Jepson and his estimable wife to stop and enjoy with them, for a day or two at least, the hospitalities of their house and home. Mr. J.'s ranch occupies a portion of the valley and runs up on to the sides of the hills where the surface is very uneven, and yet the heavy growth of barley at the time of our visit standing in the more level parts, and the fine grasses to be found in abundance over the steep hillsides, on the ridges and in the ravines, attest the presence everywhere in the neighborhood of soil of very excellent quality. Several natural fountains in the heads of ravines on the premises afford an ample supply of water for irrigation purposes, and will ever enable the proprietor of the place to raise alfalfa in abundance for pasture or hay. This is a fine place for horses to pasture, and we rejoice in the consciousness of the freedom of the green hills extended to our own little roan mare during our stay.

This place has many advantages which we could not help noting. Its good soil and climate are, we may say, common in all this region; but when we add the waters which at all seasons run from natural fountains on the place and are so easily distributed, we can at once see its wonderful adaptability to the growth of the citrus family and such other vegetation as may require irrigation.

A very fine fishpond might be constructed on a point a short distance above the house, and with but little sacrifice could be furnished with a constant flow of fresh water from some of the springs, losing almost nothing for irrigation purposes, as the flow would simply pass through and on down to the garden.

Mr. J. keeps an apiary, and during most years bees are well provided with an abundance of honey-yielding flowers. This season the flowers are poor and the business is not, for the time being, expected to bring heavy returns.

Purple Mountain-Tops.

At this place, during our brief yet very enjoyable sojourn, it is pleasant indeed to be able to sit and look across the valley at the handsome and valuable farms of O. J. Goodenough and Mrs. Akers; at the groves of live-oak and the thickly set clumps of shrubs in great variety, growing up ravines, on the hillsides and over the rounded elevations; and to let the eye range still further up to the rocky hights overlooking the deep canyons and gulches up the river. These high summits, rocky and bare as many of them are, may be appropriately called "purple mountain-tops," the purple coloring supposed to be from stains of asphaltum or mineral oils so much abounding in all this country.

These mountains are, at most points, virtually inaccessible and impassable by means of ordinary travel; and where important discoveries of oil render necessary much travel and the introduction of machinery, a good road is a desideratum which money cannot reasonably furnish.

This bit of information is taken from personal observation of this section, and especially of the well-graded road leading from the head of the valley, over the mountain some six miles, to some

New Oil Wells,

Lately bored and now flowing at least one heavy stream of oil of good quality, at a rate, perhaps, sufficient to make all the stockholders in the enterprise rich within some indefinite period of time.

A drive over the road with some friends was undertaken. For awhile we highly enjoyed the travel up a canyon, as the scenery was attractive and the air bracing; but steep ascents and descents repeated continuously, and not to be helped by the grading, became serious to both man and beast, and eventually, while resting our horses on the crest of one of the sharp high mountains, we called a council, and after taking the advice of a gentleman on horseback whom we met here, concluded that we had already had sufficient experience and enjoyment in mountain climbing for one day, and that we were justified in leaving out of our personal history, for this time at least, that part bearing on the details of things lying at the further end of the road, and so as cheerfully as our disappointment would permit returned to the valley without the satisfaction of seeing the wells or obtaining definite information with reference to them.

On the slope of the "north side" some half mile north of the Sespe railroad depot, we called at the place of

Cyrus Kenny,

And as it may be considered a representative ranch, we note the following observations:

Mr. K. has a few orange trees 11 years old bearing large, clean-looking oranges of high quality. Also the Sicily lemon and several lime trees, all fruiting nicely and looking as if conscious of their triumph in behalf of the citrus family in the valley of the Sespe. We tested the juice of the lemon and found it decidedly good. There are several other places having orange trees, among them the Wilkins place above mentioned, and all doing very well as far as known.

Peaches and nectarines generally bear well, but usually only every other year. They are now richly laden with the incoming crop. It would seem that all the Santa Clara valley is the very home of the apricot, so extraordinary is its growth and fruitfulness.

Both the apple and the pear are cultivated with good success. For profit in apple culture, Mr. K. recommends the Newtown pippin and Yellow Bellflower. In the absence of marketing facilities, the apple raised beyond the supply of the wants of the family has heretofore been of little value. The long keepers were the only ones that could be relied on to bring anything in return for the time, labor and money expended in the cultivation. But the new railroad, now in process of construction, opens up a new world to the orchardists of this region. This fact may, for trial, encourage the cultivation of some varieties of the apple hitherto overlooked, and which might eventually become quite remunerative.

The Loquat.

We notice here, as in all this country, that the loquat, aside from its highly ornamental qualities, proves itself, as a fruit tree, worthy of a place in every orchard or garden. It bears well, and its fruit ripens early in the season, before most other kinds come in. It is long in fruit. It has much the flavor of the plum, and, during its season, may take the place of the plum and other acid fruits, then out of season. The fig also grows thriftily and bears abundantly.

Mr. K. has five acres grapes for raisins; variety, white Muscat of Alexandria. The distance of vines 8x8 feet. Set out in 1876. This is the surest crop known to Mr. K., as his have not missed since first coming into bearing. He has a southern exposure, and during the fall months the atmosphere is generally dry, and there is usually no trouble in curing on the ground to perfection. We had the pleasure of testing some of his raisins, and found them very perfect in point of good color and the rich properties of the Muscat highly preserved.

Mrs. E. G. Kenny (wife of C. K.), whose worthy literary productions have often appeared in the RURAL PRESS, takes much interest in flowers and arboreal ornamentation. In looking over her interesting flower garden, we feel obliged to specially mention by name a few of the lovely roses that adorn the walks, such as La Marque, Gen. Jacqueminot, Giant of Battles, Glorie de Rosemond, Bella, Louis Phillipe, Lucullus, Castilian. We see several others of most beautiful description, and will add the moss and cabbage roses. Such flowers as callas, lantanas, geraniums, etc., are blooming in rich profusion. The large pepper trees at the front and to the south of the dwelling, with their gracefully pendent small under-branches and leaves, add much to the beauty of the place.

Other Places on the Sespe.

There are many other places on the Sespe highly worthy of mention, some of which we had not the opportunity of seeing. Passing over both the rivers to the "south side," we find in the neighborhood of the Bardsdale tract, and for miles below, the surface generally more even than on the north side, and gradually sloping from the foot of the mountains on the south back to the river. Here more attention is paid to field crops, such as wheat, barley, beans, etc., and less to the orchards. The crops of grain appear to the eye of a stranger as at least good, but those well acquainted with the products of the country year after year represent them as not first-rate, at least not as heavy as might usually be looked for.

Since the building of the S. P. R. R. extension became a fixed fact, lands in all this country have greatly appreciated in value, and a number of sales have been made. The Atlantic & Pacific railway, controlled by the Atchison, Topeka & Santa Fe R. R. Co., has made a preliminary survey for a roadbed entering this valley from the south, nearly opposite Sespe (depot), and continuing down the valley in the direction of Santa Paula. We understand that perhaps another survey has been made on the coast, passing over the Saticoy plains, and the public are not as yet advised of the true intentions of the company controlling this important enterprise.

It is generally expected that the road may yet be constructed through the county. Such a consummation would, of course, furnish still greater advantages than those that may be afforded by the completion of the S. P. extension alone, and should the line pass through this valley, we might, in the land market, reasonably anticipate still greater activity. McD.

Ventura Co.

Napa Valley Notes.

EDITORS PRESS:—The rapidity with which time flies was never more forcibly brought to mind than this season. It seems but a few weeks since seeding-time, and yet the fields are whitening for harvest. The elements have, generally speaking, worked well for the farmer in this valley, and there greets him the prospect of an abundant harvest of hay, grain and fruit. The outlook, compared with that of many portions of the State, especially to the south and east of Santa Cruz, is flattering.

Haying is already commenced—is, indeed, well advanced. While the crop will aggregate far less than that of last season, the quality is superior. The weather has been favorable for its curing—much of the time pleasantly cool. Considerable of the old crop is held over, as there was not a demand for the large amount housed. The new crop is being baled and will be placed on the market in excellent shape.

Less Hay but More Grain.

That is, a greater area was sown to wheat and barley in the county than last year. Barley has filled well and will soon be ready for the header. We opine the quality will be above that of the average year. Of wheat, it may be said that rarely, in this highly favored county, has this grain made more rapid progress or at this date presented a better appearance—tall straw, well-formed heads, looking, in countless fields, as if one might walk on them, so thick are they. Never were the fields of this grain freer of weeds of every kind, and the product will be marketed in a very clean condition. The large prospective yield and the excellent prices now offered for wheat make glad the heart of the farmer who has a large acreage to harvest.

The Fruit Crop.

Likewise the orchardist rejoices in the abundance of fruit on trees of most every variety in our orchards. In no previous year in our history has there been such an abundance of peaches. Trees have been thinned of surplus fruit, and thinned again; otherwise the fruit would be small and the branches break. Apple trees hang full of fruit, and other varieties promise well. If good prices obtain the orchardist will do well. A greater area of bearing orchard is noted in different portions of this county, and a large number of fruit trees have been planted this season. Year by year orchards are making greater encroachment on grain-fields in the lower Napa valley, while in the upper portion there is a constant enlargement of already extensive vineyards.

This latter section is just now, and will be throughout the season, one of beauty. The vines have for the most part made rapid growth, are very thrifty, and promise to yield large returns for the great care bestowed upon them. As a rule, these vineyards are well kept, and one may ride for miles between long-stretching, evenly pruned rows of vines, and not see a single weed. The frost of one month ago, much spoken of, did comparatively little damage, and though since that time various reports have gone out as to injury done vines by high winds or cool weather, the resulting damage has been slight. If one wishes to obtain a view of an earthly paradise, let him ride the length of Napa valley, visiting the other productive valleys in our county as well.

Other Matters.

Corn, of which there is every year quite a large acreage planted, is growing finely, and the yield promises to be up to the average. Very few fields are summer-fallowed in Napa valley, though larger areas are thus favored in the fruitful Berryessa valley.

Several years' trial has proved that silkworm cocoons can be successfully raised here, and profitably as well. Miss Mary Geaford, whose home is just outside the limits of Napa City, takes great interest in this branch of industry, and has received medals from the San Francisco Mechanics' Institute in years gone by. The occupation is a light one, very interesting withal. This season our local cocoonery will produce many thousand cocoons which will be sold to San Francisco parties. Other ladies might profitably engage in this industry, which is destined to rapidly enlarge as the years go by.

Napa, June 8, 1887. R.

THE STABLE.

State Fair Speed Program for 1887.

The speed program for the coming State Fair at Sacramento has been published, as follows:

First Day, Thursday, September 15.

TROTTING.

No. 1—The Occident Stake—Closed in 1885, with 29 nominations. Value of stake January 1, 1887, $1045.

No. 2—Trotting Purse, $1000—2:23 Class.

No. 3—Pacing Purse, $600—2:30 Class.

Second Day, Friday, September 16.

RUNNING.

No. 4—The Introduction Stake—2 year-olds; $25 entrance; $10 forfeit; $20 added; $50 to second; third to save stake. Winner of any two-year-old race this year to carry three pounds; of two or more, five pounds extra. Three-quarters of a mile.

No. 5—The California Breeders' Stake—For foals of 1884; $50 entrance; p. p.; $300 added; $100 to second; 50 to third. Closed in 1886 with 12 entries. One mile and a quarter.

No. 6—The Capital City Stake—For four-year-olds; $50 entrance; h. f., or only $15 if declared on or before September 1st; $300 added, of which $100 to the second horse; $50 to the third. Weights, five pounds below the scale. Winner of any race over one mile, this year, to carry rule weights. One mile and five-eighths.

No. 7—Free Purse, $250—Winners of any race this year, of the value of $300, to carry five pounds; maidens allowed, if three years old, five pounds; if four years, or upward, 15 pounds. Mile heats.

Third Day, Saturday, September 17.

TROTTING.

No. 8—Two-year-old Trotting Stake—$50 entrance, of which $10 must accompany nomination; $15 payable July 1st, and remaining $25 payable August 10, 1887; $200 added by the society. Closed April 15th, with 18 nominations. Mile heats.

No. 9—Trotting Purse, $1000—2:27 Class.

No. 10—Trotting Purse—$1200—2:17 Class.

Fourth Day, Monday, September 19th.

RUNNING.

No. 11—The Premium Stake—For all ages; $50 entrance; h. f., or only $15, if declared on or before September 1st, with $300 added; $100 to second; third to save stake. Horses that have started and not won this year allowed five pounds. Maidens, if three years old, allowed five pounds; if four years old or over, seven pounds. Three quarters of a mile.

No. 12—The California Annual Stake—For foals of 1885; $100 entrance; $25 forfeit; $250 added. Second horse, $100; third horse, $50. Closed in 1886 with 24 nominations. One mile.

No. 13—The La Rue Stake—Handicap for all ages; $100 entrance; $50 forfeit, with $500 added, of which $150 to second; $100 to third. Weights announced September 10th. Declaration, $20, to be made with the secretary by 8 o'clock P. M. September 12th. In no event will declaration be received unless accompanied with the amount fixed. Two and one-quarter miles.

No. 14—Selling Purse, $250—Of which $50 to second. Fixed valuation, $1000; two pounds for each $100 below; two pounds added for each $100 above fixed value. One mile and an eighth.

Fifth Day, Tuesday, September 20th.

TROTTING.

No. 15—Three-year-old Trotting Stake—For all colts (except Ella, Soudan, Shamrock and Sable Wilkes); $100 entrance, of which $25 must accompany nomination; $25 payable July 1st, and remaining $50 payable August 10, 1887; $400 added by the society. Closed April 15th, with 14 nominations. Mile heats, three in five.

No. 16—Trotting Purse, $800—3:08 class.

No. 17—Trotting Purse—$1200—2:20 class.

Sixth Day, Wednesday, September 21st.

RUNNING.

No. 18—The Sunny Slope Stake—For two-year-old fillies; $25 entrance; $15 forfeit, or only $10 if declared on or before September 1st; $150 added; $25 to second. Those that have started and not run first or second in any race this year, allowed five pounds. Five-eighths of a mile.

No. 19—The Shafter Stake—For three-year-olds; $50 entrance; $25 forfeit, or only $15 if declared before September 1st, with $300 added; $100 to second; third saves stake. Winner of any race this year to carry five pounds extra; of two or more, ten pounds; maidens allowed five pounds. One mile and a quarter.

No. 20—The Del Paso Stake—For all ages; $50 entrance; $25 forfeit, or only $15 if declared on or before September 1st, with $300 added; $100 to second; third saves stake. Three-year-olds to carry 100 pounds; four-year-olds, 110 pounds; five-year-olds, 112 pounds. Sex, but not heat, allowances. Three-quarter mile heats.

No. 21—Free Purse $300—$50 to second. Horses that have started and not won this year allowed ten pounds. Winners this year of any race of the value of $400, to carry five pounds extra; winner of No. 7, ten pounds extra. One mile.

Seventh Day, Thursday, September 22d.

TROTTING.

No. 22—Trotting Purse, $1000—2:25 class.

No. 23—Four-year-old Trotting Stake—

(Conditions same as No. 15.) Closed April 15th, with ten nominations.

No. 24—Pacing Purse, $800—Free for all.

Eighth Day, Friday, September 23.

RUNNING.

No. 25—The California Derby Stake—For foals of 1884; $50 entrance; p. p.; $300 added. Second horse $100; third $50. Closed in 1885 with 17 nominations.

No. 26—The Palo Alto Stake—For two-year-olds; $50 entrance; $25 forfeit, or only $15 if declared on or before September 1st; with $250 added; $75 to second; third to save stake. Winner of any two-year-old stake, this year, to carry five pounds extra; of two or more, 10 pounds. One mile.

No. 27—The Golden Gate Stake—For three-year-olds; $50 entrance; $25 forfeit, or only $15 if declared on or before September 1st; with $350 added. Second horse, $100; third to save stake. Winner of any three-year-old race at this meeting to carry five pounds extra; colts not 1, 2, 3, in No. 19, allowed five pounds. One mile and three-quarters.

No. 28—The Nighthawk Stake—For all ages; $50 entrance; $15 forfeit; $300 added; $100 to second; $50 to third; $200 additional to the winner if 1:41¼ is beaten. Stake to be named after the winner if Nighthawk's time (1:42¼) is beaten. One mile.

No. 29—Free Purse, $250—For all ages; $50 to second. Horses not having won at this meeting allowed five pounds. Horses that have not run second or better at this meeting allowed 10 pounds. One mile and a sixteenth and repeat.

Ninth Day, Saturday, September 24.

TROTTING.

No. 30—Special Three-year-old Trotting Stake—For Ella, Soudan, Shamrock, Sable Wilkes, and others. (Conditions, same as Regular Stake No. 15.) Closed April 15th, with six nominations.

No. 31—Trotting Purse, $1200—Free to all.

No. 32—Trotting Purse, $1000—2:40 Class.

Future Events.

Entries for the following running events for 1888–89 were ordered to be closed at the same time as the races on the regular program:

No. 1—California Breeders' Stake—For foals of 1885, to be run at the State Fair of 1888; $50 entrance; $25 forfeit, or only $10 if declared January 1, 1888; $300 added, of which $100 to second and $50 to third. One mile and a quarter.

No. 2—California Annual Stake—For foals of 1886, to be run at the State Fair of 1888; $100 entrance; $25 forfeit, or only $10 if declared January 1, 1888; $250 added; second colt, $100; third, $50. One mile.

No. 3—California Derby Stake—For foals of 1886, to be run at the State Fair of 1889; $100 entrance; $50 forfeit, or only $10 if declared January 1, 1888; $15 if declared January 1, 1889; or $25 if declared May 1, 1889; $300 added; second horse $100; third horse $50. One mile and a half.

Regulations, Etc.

All trotting and pacing races are the best three in five, except the two-year-old, unless otherwise specified.

Entry blanks and racing rules will be furnished upon application to the secretary. Entries in all, except otherwise stated, to close with the secretary Monday, August 1, 1887.

THE DAIRY.

Prizes at New York Dairy Show.

Smiths, Powell & Lamb, of Syracuse, send us a circular announcing that at the recent New York Cattle and Dairy Show, which was unquestionably the largest and best exhibition of the kind ever held in this country, between 400 and 500 of the choicest representatives of the various dairy breeds being represented, the Lakeside Herd won the following prizes: Sweepstakes for best milch cow of any breed, won by Lady Fay, eight animals being entered for the test, six actually competing. Sweepstakes for best butter cow of any breed, the one producing the largest quantity of butter during 24 consecutive hours of the exhibition, won by Clothilde, 16 animals being entered for the test, and 12 actually competing, of which 5 were Jerseys, 1 Guernsey, and 6 Holstein-Friesians. Clothilde 4th, her daughter, 3 years old, by Netherland Prince, stood second, the judges commending the fine quality of her butter. Seven other members of Lakeside herd won prizes in their respective classes.

Holstein-Friesian butter from another herd won first prize on 5-pound package, 38 entries representing the various dairy breeds in competition; also won 2d and 3d prizes on 30-pound package, 18 entries in competition.

SALE OF HOLSTEIN-FRIESIANS.—The fine herd of Holstein-Friesian cattle from the Ontare ranch, Santa Barbara county, was sold at auction by Killip & Co. at the Oakland Trotting park, June 16th. The prices were fair and the bidding as lively as expected, the attendance of interested purchasers being quite large. The record of the sale is as follows: Bulls—Ontare Chief, sold to C. W. Faber of this city for $250; Omaha, to E. W. Steele of San Luis Obispo for $300. Cows—Aaggie Kathleen $310, Syppha $125, Aaggie Leila $115, to F. H. Burke; Puritania $90, Orphan Queen $122.50, Lakeside Lois $130, Lakeside Edelia $150, Olivia Lincoln $150, Portia Lincoln $150, Marie Valoris $125, to A. Forbes; Ontare Belle $155, Lakeside Pet $130, and Artis' Carisa $265, to E. W. Steele; Alexia of Lakeside $115, and Virgie Rooker $185, to T. B. Hall of Sacramento; Flora Lincoln $215, Artis' Sophia $195, Polly Ursem $125, Jacob Wit's Bernie $175, Myla $130, Jacob Wit's Watteau $305, to J. C. Steele of Pescadero; Vassar $150, Jacob Wit's Phene $170, Fanny Fern $145, Jacob Wit's Myth $185, St. Perpetua $180, Phyllis Lincoln $189, Sara Zeeman $165, Lakeside Camilla $150, to H. N. Buhne of Eureka; Emma Rooker $205, Artis' Cambrasio $170, Julia Arthur $160, Nerissa Lincoln $160, Lakeside Alida $145, Lakeside Agnes $130, Artis' Griselda $180, and Ellie Lee $170, to R. G. Sneath of San Mateo; Dame Trot $155, Miss Frisbie $170, and Rosabel Lincoln $270, to F. H. Kenfield of Redwood City; Riding Hood $145, Artis' Dorlisca $170, and Lakeside Amy $140, to Oscar Foss of this city; Annette Lincoln $240, to M. F. Tarpey of Oakland. A lengthy list of bull calves and heifers, numbering 64 animals in all, were sold at the same average of fair prices.

ENTOMOLOGICAL.

Strawberry Borers.

EDITORS PRESS:—When Prof. Riley was here in April, he visited strawberry plantations with me and carried home with him some of our strawberry borers. After making due examination, he sends the inclosed report:

U. S. DEPARTMENT OF AGRICULTURE,
DIVISION OF ENTOMOLOGY,
WASHINGTON, D. C., May 28, 1887.

My dear Mr. Wilcox: I have often thought of you since I got home, but now have a special reason for thinking of you and for writing you. Your strawberry borer, which I have succeeded in breeding to the perfect state, turns out to be, as I told you it would, an *Aegeria*. It corresponds with what has been described by Mr. Henry Edwards as *Aegeria impropria*. There are some slight differences between the specimen from your strawberry roots and the description, but I believe they are only variations. This determination of the species is of course only one step, and that not of a very great economic importance, in eliciting the full history of the pest. I will not attempt to suggest a satisfactory remedy until we have studied its full life-history through a whole year, except that I believe that bisulphide of carbon inserted in holes in the ground wherever the borer is found working badly will prove destructive to it. Sincerely yours.

C. V. RILEY.

It will be understood that this borer is unlike the one that is so common and injurious on the Atlantic side of our country, and which is widely known elsewhere.

While our borer works upward from the root, theirs works from the crown down, and is known as "the crown borer."

I am glad to place this borer where it belongs, in the category of fruit depredators, and am also glad that it is not so destructive as the Eastern pest. But this may be owing in part to our system of irrigation, which checks its ravages to a great extent.

It is a great wonder that the crown borer has not yet been brought into our State, as we are constantly bringing in all the new varieties of strawberries produced elsewhere. I will not further extend my comments on these borers, which I have repeatedly referred to heretofore in your paper. We cannot be too careful in bringing in new plants, and should promptly treat any of these borers with Prof. Riley's remedy or some other remedy more heroic. Better destroy the plants entirely than to run any risk. I. A. WILCOX.

Santa Clara, June 14, 1887.

The Hop Louse.

WASHINGTON, June 15.—Professor Riley, Entomologist of the Department of Agriculture, has made public the result of an exhaustive personal investigation into the habits of the *phorodon humuli*, or hop louse. His discoveries are expected to prove of great value to hop-growers, as he has succeeded in learning the habitation of this plant pest during the winter months, and tracing it through the varying stages of insect life. Before the Professor's investigation it was not known how or where the insects survived the winter.

As a result of his inquiries, the Professor has satisfied himself that the eggs laid by the female at the close of the summer are deposited in plum trees, where the insect hatches in the spring and resides until the third generation. This third brood, unlike its predecessors, is winged, and immediately after development abandons the plum tree and attacks the hopvine. In the autumn the counter-migration from the hopvine to the plum tree occurs, the winter eggs are deposited, and the cycle of life goes on in the same fashion.

It is a notable fact that in regions where the cultivation of hopvines is a new industry, the growers have had complete immunity for a while from the pest.

In California to-day they are not troubled by it. The Professor believes that the *phorodon humuli* has been brought to this country from Europe on plum stock, and there is reason to believe that phylloxera, the dreaded grape pest, was carried from this country to Europe on grapevine cuttings. Therefore California hop-growers are warned to beware of importing plums to California from Eastern hop regions. These discoveries render it possible to check the ravages of the hop louse either by the use of insecticides in the springtime before the insects have reached the winged state, or by the destruction of sheltering plum trees.

Experiments will be continued with a view of protecting hopvines after they have become infected with lice.

HORTICULTURE.

Thrashing for Walnut Dropping.

EDITORS PRESS:—I see a notice from Coloma, in El Dorado county, in your number of May 21st, asking "Why do walnuts drop?" and wishing a remedy for the evil.

I have some thrifty walnut trees at my country seat in Temescal, and they put it in their lofty heads to drop their fruit every year when the size of a marble, as your correspondent says. Then we remembered the method adopted in the European countries of our birth to remedy the evil, applied it, and since then it is a real satisfaction to see the number of walnuts that grow to maturity. The remedy is this: We continually break with the fingers all the young shoots which can be easily reached, and to the balance of the tree or trees we give a good sound thrashing with a long, slender pole. This thrashing is directed against, and has for its object to break, all the young shoots of the tree, and thus to compel the vital force to expend itself in forming fruit strong enough to arrive at maturity. A. VAN DER NAILLEN.

24 Post St., S. F.

California Dried Fruits.

[Written for the RURAL PRESS by J. R. F.]

With this month ends the dried fruit season of 1886–7, and owing to the large interests at stake, a short review may prove interesting to the many readers of the PACIFIC RURAL PRESS. The following gives the production last year in comparison with 1885, 1884 and 1883:

	1885. lbs.	1883. lbs.	1884. lbs.	1883. lbs.
Raisins	15,000,000	9,400,000	3,500,000	2,500,000
French Prunes	2,150,000	1,400,000	1,524,000	250,000
German Prunes	125,000	150,000	350,000	.....
Apples, sun-dried	300,000	1,073,000	1,200,000	800,000
Peaches, do.	750,000	1,500,000	500,000	500,000
Plums, do.	500,000	1,020,000	700,000	100,000
Pears, do.	50,000	100,000	75,000	75,000
Grapes, do.	175,000	175,000	150,000	125,000
Apricots, do.	150,000	300,000	100,000	300,000
Nectarines, do.	30,000	30,000	10,000	20,000
Figs, do.	150,000	100,000	50,000	60,000
Apples, evaporated	500,000	750,000	400,000	250,000
Apricots, do.	450,000	350,000	100,000	90,000
Peaches, ev. peeled	100,000	150,000	50,000	.....
Peaches, ev. unpeeled	200,000	250,000	80,000	.....
Plums, evaporated	85,000	118,000	75,000	.....
Nectarines, do.	25,000	50,000	10,000	.....
Totals	20,745,000	16,766,000	8,874,000	5,079,000

Raisins show a most remarkable increase, as do French prunes. Apples, plums and peaches show a large falling off, but apricots hold their own, while figs show an increase. The large demand, both home and shipping to the East, for green fruits particularly, in the months of May, June, July and August, caused horticulturists to sell and not dry the fruits. There was shipped to the distribution centers east of the Rocky mountains all of 100 per cent more green fruits than were sent in 1885. While there was an increased shipment, there was also a larger purchasing of several varieties by canners. Besides, the crops of apricots, apples and peaches were light, particularly that of peaches. The season was entered with the market cleaned up and ready buyers in the field at an advance for the more choice dried marketed in attractive packages. The East, which had taken everything in this State in the shape of dried fruits, owing to the low overland freights, was also bare of stocks, but at first held back owing to the advanced views of holders on this coast. As the season advanced, Eastern buyers took more kindly to the situation, and paid quite freely the full figures asked. Soon the demand became more marked, resulting in the market being cleaned up at an earlier date than was the season of 1885–86, and at prices showing an average advance of more than 100 per cent.

Last year's production was better handled and sent to the market in much better condition and style than was ever before done. This improvement in the drying and handling had a most marked effect for the better, and not only aided in their being placed more advantageously, but has built up a reputation for California dried fruits second to none, while in some respects superior, particularly the French prunes and peaches.

The incoming dried fruit crop will come in on a bare and hungry market, both on this coast and at the East. All Eastern advices report that the distribution the past winter and spring was on a more extended scale than ever before known, and what is equally as worthy of special note is that all went into consumption. This year's crop will probably exceed last year's, owing to the high prices obtained for all varieties dried in 1886. It is impossible to give the number of new driers sold to be used, but it is claimed that there will be all of 25 per cent more in use than there was last year. One party living near Los Gatos is said to have added to the number of driers he will use. This he is compelled to, owing to his having bought over 2000 tons of green fruit for drying. Regarding future prices it is difficult to say, but this is safe to state, that all advices from the East are to the effect that they can handle with fair profit to driers all the fruit that can be dried on this coast, provided care is used in drying, handling, and packing it for market.

SHEEP AND WOOL.

The Southdown Breeders.

EDITORS PRESS:—The American Southdown Association held its annual meeting in the Leland hotel, Springfield, Ill., on the 1st inst., President J. H. Potts in the chair.

The report of the secretary was received, showing an encouraging increase of interest in the rearing of good mutton sheep. There has been a very noticeable increase in the demand for Southdown rams for crossing on flocks kept heretofore chiefly for the production of wool. The second volume of the Record was reported as full and in the hands of the printer.

The treasurer's report was referred to the Auditing Committee. It showed a handsome balance on hand with which to pay for the publication of Vol. II of the Record soon to be issued.

On motion Messrs. S. E. Prather and Chas. F. Mills were appointed a committee to prepare resolutions expressing the loss of the association by the death of Geo. Pickrell, late a member of the Board of Directors.

The election of the officers for the ensuing year resulted in the choice of J. H. Potts for president, S. E. Prather for secretary, and D. W. Smith for treasurer. Three directors were also chosen to serve for the term of three years as follows: D. W. Smith, Bates, Ill.; Sam'l J. Sharpless, Philadelphia, Penn., and C. F. Mills, Springfield, Ill. T. T. Shoemaker, Charleston, Ill., was elected a director for the unexpired term made vacant by the death of Geo. Pickrell.

The members of the Board of Directors who hold over until 1889 are H. E. Alvord, Amherst, Mass., C. M. Clay, Whitehall, Ky., and Fred'k Billings, Woodstock, Vt. Those who hold over until 1888 are T. W. Harvey, Chicago, Ill., J. H. Potts, Jacksonville, Ill., and T. T. Shoemaker, Charleston, Ill. PHIL. THRIFTON.

Proposed Quarantine on Sheep.

HELENA (M. T.), June 15.—The Judith Wool-Growers' Association, at a meeting held at Lewistown, passed resolutions requesting the Governor to prohibit the importation of sheep from the States of Nevada, California and Oregon and the Territories of Idaho and Washington, on the ground that nearly all the sheep brought in from the sections stated are affected with scab.

The woolmen were in high spirits, and look to this year's increase to more than offset last winter's losses.

The general sentiment of the members of the association was for all to make no calculations on open winters, but to shut up all the hay possible; not to run too many sheep in one band, and to provide ample protection from storms.

HELENA (M. T.), June 16.—Upon the return of Governor Leslie, now in Kentucky, arranging for the transfer of his family to Montana, a combined effort will be made by the leading wool-growers of the Territory to induce him to quarantine Oregon and California sheep affected with scab. It is not improbable that the request will be granted, and it is worth the attention of those intending to drive into Montana, so that they will not get their bands started on the trail only to find themselves stopped at the border. It is said that one band of scabby sheep, from Oregon, driven into Gallatin county last year, communicated that disease to 40,000 healthy sheep.

Buenos Ayres Sheep.

WASHINGTON, June 8.—L. L. Baker, United States Consul at Buenos Ayres, in his monthly report to the Department of State, treats in great detail the native sheep of the Argentine Republic and their value and the practicability of introducing them into this country. Consul Baker thinks that all the varieties could be tamed with advantage in the desert places of Texas, New Mexico and Arizona, and that even the most unpromising portions of these Territories might in time attain development through the valuable wools which these animals afford, while in other parts of the country, wherever ordinary sheep may be bred, the introduction and acclimatization of these valuable wool-producing animals would give us a new and national source of wealth.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Why is This?

When the land is full of workers,
Busy hands and active brains;
When the craftsmen and the thinkers
Feel about them binding chains;

When the laborer is cheated
Of the work his hands have wrought,
And the thinker, vain of logic,
Sees that reason comes to naught;

When the forces men have harnessed,
And have trained to do their will,
Ought to have no homeless people,
And no hungry mouths to fill;

But have proved themselves the servants
Of the shrewd and selfish few,
And the many get but little
For the work they find to do;

When the labor of a million
Goes to swell the gains of one,
As the slaves of ancient Egypt
Slaved beneath the burning sun;

When the schemer and the sharper
Hold the wealth and rule the land,
Using up the thinker's brain-force,
Mortgaging the craftman's hand;

When the many shear the sheep
And the few secure the wool,
And the gallows claims its victims,
And your costly jails are full;

Then the men who dreamed of progress
And had hopes of peace and bliss,
While they think and wonder vainly—
Ask each other: "Why is this?"

Then the thinker, while confessing
That his vision yet is dim,
Says that one thing very clearly
Is apparent unto him—

That the people, blind or heedless,
Place themselves beneath the rule
Either of the devilish knave, or
Worse, perhaps, the sodden fool.

—*N. P. Willis.*

Grangers' Interstate Picnic-Exhibition in Pennsylvania.

The Fourteenth Annual Interstate Picnic-Exhibition, under the auspices of the Patrons of Husbandry, will open at Williams' Grove, Cumberland county, Penn., Monday, August 29th, and continue through the week. Bro. R. H. Thomas, of Mechanicsburg, general manager of the exhibition, has issued a circular, from which we make the following extracts:

Thirteen years ago Patrons of Husbandry, to the number of a few hundred, came to this spot to hold a pleasant reunion, talk over the work already done and arrange plans for the future. Little did they think that they were even then laying the foundation for the greatest gathering of farmers, manufacturers, and all interested in agricultural pursuits, ever known in the United States. That few hundred has become over 100,000, representing 28 States of the Union.

Varied and extensive as was the display last year, it will be greatly surpassed the present season. A large number of new and handsome permanent buildings will be erected, which, together with other substantial improvements that have been made, will add greatly to the beauty of the place. The applications by exhibitors for space are over 20 per cent greater than at this date in any former year. New manufacturing firms, which have never yet exhibited at Williams' Grove, are preparing for extensive displays. Leading stock-raisers have made arrangements to exhibit largely.

A new and interesting feature of the exercises will be instructive lectures to the members of the Patrons' National Reading Circle and a general conference of the leaders of the different classes for the purpose of determining the best methods of successful work.

Arrangements are being made this year by which the cheap excursion rates to the picnic will cover a greater length of time, thus affording Patrons and others an opportunity to be in at the opening and closing of the exhibition, without being subject to any inconvenience or annoyance from higher rates of fare.

The management are busy preparing to meet the increasing demands for space and quarters. Hundreds will stay in the grove the entire week and thus save the worry and annoyance of seeking lodging-places elsewhere. This is the true way to enjoy the meeting, and those who once adopt this plan are not likely to desire a change.

We do not know how many California Granges will be able to attend this interesting picnic-exhibition; but any who desire to know more about it may address R. H. Thomas, Mechanicsburg, Pa.

GALT GRANGE, agreeably to arrangement noted three weeks since, entertained a delegation of 14 members from Sacramento Pomona Grange on the 4th instant. The ride thither, the sisters' hospitable board, the speeches and social converse generally, all seem to have been thoroughly enjoyed by those whose good fortune it was to go on the fraternal visit.

The Drive-Well Patent.

Bro. Mortimer Whitehead, W. L. N. G., writes as follows in regard to the decision which we briefly mentioned last week:

A case in which tens of thousands of farmers in all parts of the country are interested has lately been decided by the Supreme Court of the United States, viz.: the "Drive-well" patent case. It has been over and over again proven that the first of these wells, which consist of nothing but a pointed tube driven down into the ground, and worked by an ordinary pump, was driven in October, 1861, in the camp of the 66th N. Y. S. V. of which Col. Green was the commanding officer. Other like wells were used during and after the war, and the Circuit Courts in Iowa and Indiana held that this use of the wells by the public rendered the patent void. Decisions upon the same subject have been reached in New Jersey, as well as in Connecticut and Ohio, from which the appeal just decided was taken. The Supreme Court now reverses the lower courts, and holds that the invention had neither been anticipated nor used by others in a matter to invalidate the patent. The interests involved, while small in each individual case, are enormous in the aggregate. The Indiana suit showed that 50,000 of these wells, on each of which $10 royalty was demanded, were in use in that State alone. As many more are in use in Iowa, and the number in the United States has been placed at between 500.000 and 1,000,000.

With the prospect of paving this royalty of from *five* to *ten millions of dollars* staring them in the face, one would think that every farmer in the nation would at once unite with an organization like the Grange, that for years past has been trying to have our unfair patent laws so amended that the *manufacturer* of articles that are patent-infringements shall alone be held responsible, and *not* the innocent purchaser, who pays full price for the machine, drive-well or whatever the article may be, not knowing of the patent, or perhaps being assured that the royalties, etc., have been paid. If every farmer was in the Grange, where he belongs, the law which permits this levying of millions of dollars tax upon farmers from time to time—of which this drive-well is only one instance among many—would be stricken from our statute-books before the adjournment of the next Congress. Farmers, think of this.

Strawberry Festival at Sacramento.

Sacramento Grange has a kindly custom of holding an annual strawberry festival and Harvest Feast, to which the members of neighboring Granges are invited. This pleasant usage was duly observed May 28th.

The W. M. instructed a class in the fourth degree; then came the delicious banquet, and in the afternoon there was an open meeting, largely attended, at which the following toasts were proposed by the W. M., and responded to in entertaining style by the parties mentioned: "The Good of the Order," W. L. P. G., G. W. Hack; "The Next State Grange at Santa Rosa," District Lecturer Geo. W. Hancock; "The Growth of Our Order," Master Elk Grove Grange, Thos. McConnell; "Our Sister Grangers," A. F. Aiken; "The Age of Progression," P. M. Oscar S. Flint; "Our Sisters' Rights," Flora M. Greenlaw; "The Fruit Industry," E. Greer; "The Rising Generation," H. W. Johnson; "Sacramento County," Wm. M. Sims; "Sacramento Grange, No. 12," proposed by W. M., Sims, responded to by W. M., W. Walter Greer; "Sacramento County Pomona Grange," W. O., Jas. Sims; "The Grange," Dr. Caples, of Elk Grove Grange; "Our Visitors," Geo. Wilson, of Enterprise Grange.

The exercises were varied with songs and instrumental music, all present seemed to enjoy themselves, and the meeting was pronounced "an entire success in every particular."

WATSONVILLE GRANGE having proposed that a fair be held in Pajaro valley this fall, the *Pajaronian* indorses the project with enthusiasm as follows: "Heretofore Salinas and Santa Cruz have had a monopoly of the fair business, the former being aided by the State and the latter by a county association. Midway between those towns is Pajaro valley, numbering among her productions the full list of cereals, vegetables and deciduous fruits. No part of the State is richer in soil, no section can show greater variety or more general excellence in productions. * * This year Pajaro valley could make a local exhibit that would surprise even the people of this section, and that could be forwarded to the State or Mechanics' Fair, where it would be bound to attract much attention, and thus further advertise the fertility of this favored spot. Business men, orchardists, dairymen and all classes of farmers should unite to make the fair proposition a certainty, and then unitedly labor to make it a success. Every person interested in the progressive development of Pajaro valley should attend the public meeting to be given by Watsonville Grange at its hall on Saturday afternoon."

BY the death of Bro. Frederick Langenkamp, Valley Grange has lost the counsel and aid of one of its most beloved and genial members. Resolutions expressing their sense of departed worth, of sorrow, and of sympathy with the bereaved family, have been adopted and published by the Grange.

Grange Work and Progress.

[Prepared Weekly by M. WHITEHEAD, National Lecturer.]

Ought some restrictions to be placed upon indiscriminate immigration? is one of the subjects proposed for investigation and discussion by members of the Grange in the United States during the summer months, that they may be prepared to take intelligent and concerted action at the meeting of the National and State Granges next fall and winter, and so bring the matter with proper weight before Congress.

It is estimated that upward of 600,000 foreign immigrants will land on our shores this year. In some cities they are camped out, waiting for steamers to transport them.

In every Anarchist meeting or outbreak, in every official statement concerning the condition of labor or the inmates of our almshouses and asylums for the insane, and in every report relating to plague spots in the slums of our great cities, may be found something to remind the people of the United States that immigration is not a blessing. A bill abolishing the State Board of Immigration of Wisconsin passed both houses of the Legislature without a dissenting vote this last winter. We do not want criminals. We do not want insane persons or paupers. The almshouses of New York State contained in 1880 no less than 34,312 foreign-born inhabitants; one foreign-born pauper to every 35 foreign-born inhabitants, as against one native to every 176 of the native population.

Farmers bear the burden of the taxes to support these paupers. We do not want the thousands of laborers who are coming hither with the intention of living here for a few years upon food that the native laborer rejects, of working for very low wages, and then returning to Europe to spend the remainder of their days.

We do not want those whose chief desire is to destroy our institutions, illustrated by him who, on being asked what ticket he was going to vote, answered: "Any that is agin the Govermint." Farmers must bear the burdens of all the troubles this class causes also.

STEAMSHIP LINES who have tickets to sell, railroads who have besides transportation millions of acres of land given them by our too liberal Congress, which they wish to dispose of at good figures, use every device to induce immigration. Millions of acres of land are put under the plow by those used to peasantry living and expense, and produce crops to add to an increasing overproduction year by year; land that could afford to wait for the coming generations, and be developed as needed and not as now forced to yield its increase even to the detriment of a very large proportion of the farmers of other portions of our country.

THE recognition that the Order is receiving, through the enactment of laws and the consideration of various measures that have been advocated by the Grange, by the National and State legislators, is inspiring the farmers of the nation with hope and faith in the practicability and final success of the Order, and of the utility and absolute necessity for organization. It is the hope of those who are laboring for the welfare of American agriculture, and for mankind in general, that the day is not distant when correct conceptions of the means to be employed, and the methods by which the corrective influences appropriate to our form of Government, are to be more clearly understood and universally applied.—*N. Zimmerman, Lecturer Kansas State Grange.*

WE are wont to say farmers are the most independent class there is. It is true that a farmer in good circumstances, with moderate wants, may regard himself and condition with a degree of self-complacency. But whatever his circumstances may be, the most valuable lesson he can learn is to know when to be independent, and when to co-operate with others. In the Grange all matters can be discussed, and each may receive the benefit of the knowledge of all. We say to every farmer, go into the Grange and learn; and to put your newly acquired knowledge to practical test in the useful purposes of life; being a member of the Grange, you have a noble opportunity.

The intelligent and docile Patron of Husbandry will soon find that he can learn much more of the best methods to be pursued in his calling by co-operating with his fellows, who have equal and identical interests, than by working independently and by himself.

He will also find it no less profitable to exercise his independence and his own good judgment in all matters that affect him through the medium of taxation. Let him inquire if it is right for one man, with little or no property, to pay as much for the support of government as the richest, because it is for the interest of his Congressman who gets $5000 a year and 20 cents a mile for travel to tell him so. He certainly ought to have independence enough not to believe that black is white, or that two and two make five, especially when he has to pay for the cheat himself. Why imagine himself an American sovereign and still blindly and servilely follow the dictation of party leaders and professional men who fatten on the fruits of his toil?—*Dirigo Rural.*

THE lecturing force of the National Grange is now disposed of as follows: Deputy Lecturer J. N. Lipscomb has the following partial program: Arkansas, July 1st to 18th, and July 23d to 28th; Mississippi, July 19th to 22d; Interstate Grange Encampment (five States), Spartansburg, South Carolina, August 1st to 6th; Texas, August 9th to 20th; Louisiana, August 21st to September 1st; Alabama, September 1st to 15th, the balance of September and October divided among Georgia, North Carolina and South Carolina.

Deputy Lecturer D. H. Thing is in Maryland; then goes to Pennsylvania until July 2d; then to Maine; August, in New Hampshire and Pennsylvania; September, in Vermont; other meetings are being arranged.

Deputy Lecturer C. L. Whitney is preparing for Colorado.

Deputy Lecturer J. H. Brigham is about completing his Kentucky campaign, and will be actively at work in the central and some of the Western States during the summer and fall.

The Lecturer of the National Grange is still in Virginia; he goes next to Pennsylvania, and arrangements for his Western visit in eight States are nearly completed.

PROGRESS.—Two more new Granges in Penn.

I LOVE the Grange because it is so unselfish and so full of philanthropy. Why all the farmers are not actual members of the Grange and helping us, as Grangers, to accomplish the objects for which we are striving, is, indeed, a mystery.—*W. L. R., Tennessee.*

PITTSTON GRANGE, N. H., holds "children's meetings" once a month for the little folks, and it is a grand feature.

CALIFORNIA PATRONS have taken steps to organize a Grange immigration agency, so that Eastern members of the Grange who may desire to go to California for the purpose of making the State their home, may obtain reliable information in regard to the country without the fear of having frauds perpetrated upon them by parties who are interested in private speculation. The object is laudable, and will doubtless be appreciated by many who are looking toward the Pacific Coast.

THE GRANGE has no sympathy nor fellowship with communism, socialism, nihilism, nor even the least countenance for them. The Grange is composed of the most conservative of all classes—the farmers. A willful violation of law cultivates the spirit of lawlessness. When men meet together and organize for the purpose of defeating the execution of a statute which has been passed and promulgated by the proper authorities as the law of the land, what is such an organization but a school for training men in a spirit of disobedience to civil authority, and graduating them full-fledged anarchists?—*Grange Homes.*

The Beet-Sugar Enterprise to Go Forward.

We are glad to learn that arrangements are advancing to rebuild and re-equip the beet-sugar factory at Alvarado. The trouble in the old establishment was settled by legal methods, and Mr. E. H. Dyer has become owner of the old plant at a valuation of $125,000. He has organized a new company, which has just incorporated under the name of the Pacific Coast Sugar Company, in which there will be put in funds equivalent to Mr. Dyer's possession, making the whole capital a quarter of a million. It is announced that the company will at once begin the construction of a new mill, on which $75,000 will be spent, leaving a working capital of $50,000. The mill will be ready for work for the season commencing in August, 1888. The new mill will be much more scientifically constructed than the old, which was built up from time to time as additions were needed, and was consequently in great measure a patchwork affair. The most improved European and American machinery will be used, but it will all, or nearly all, be made on this coast, and probably by the Union Iron Works, of San Francisco. In the season of 150 days, they expect to be able to turn out 4,000,000 pounds of sugar, which they calculate will cost them 4½ cents a pound. On these figures, even at the present low price of sugar, there is a profit of one cent per pound. If the enterprise turns out a success, the company proposes to build another mill at Decoto, a few miles from Alvarado.

It is expected that the new mill will use from 160 to 200 tons of beets a day. The capaci y of the old mill was 80 tons a day, and it is said that in the years from 1879 to 1886 it made a net profit of $103,349 63, but none of this was made in the last three years of its existence, because of the extremely low price of sugar, coupled in some measure with the lack of improved machinery.

We trust the course of beet-sugar will be henceforward clear and onward. There are many hoping for it.

GEN. BIDWELL'S GIFT TO THE NORMAL SCHOOL.—On the evening of the 14th the citizens' Committee on the Location of the Normal School were notified by Gen. Bidwell that he would donate, as a free gift, eight acres of land in his garden on First street, together with the perpetual right to the waters of Chico creek, for irrigation and school purposes. The committee were highly gratified at the announcement, and immediately prepared a letter of thanks to the General in behalf of the citizens of Chico and vicinity. The land donated is in the edge of town, far preferable to the site he first offered for the purpose, and, with the water-right, is valued at not less than $20,000. This last act is quite in keeping with the humane spirit and many generous deeds which have endeared the General and Mrs. Bidwell to their fellow-citizens and neighbors.

STOCKTON FAIR SPEED PROGRAM.—We have received a copy of the speed program of the Stockton fair. The racing will begin Tuesday, Sept. 27th, and close Saturday, Oct. 11th. Purses aggregate $15,000. The San Joaquin valley district for races comprises the counties of San Joaquin, Tuolumne, Mariposa, Fresno, Calaveras, Stanislaus, Merced, Tulare and Kern. Any desired information can be had by addressing J. M. LaRue, secretary, P. O. box 188, Stockton, Cal.

AGRICULTURAL NOTES.

CALIFORNIA.

Colusa.

QUEER WEATHER.—*Sun*, June 18: Our hot weather came earlier this year than usual, and was followed by more cold weather than is usual for a California summer. Last Sunday was a day of hail and rain. At some places in the valley as much as an inch and a half of rain fell in an incredibly short time. Sunday, immediately after the hailstorm, on the platform at the depot, hail seemed to be several inches deep where it had rolled off the roof of the house. Just think of a pile of ice falling from the clouds so soon after the hot days of the latter part of May! There was only six hundredths of rain at Colusa, and at some places none at all. A streak of the hailstorm passed over a portion of the big grain on Grand island and knocked it down so that it will be hard to gather. J. C. Frazier informs us that out of 2000 acres he has 40 badly down, but that he will get most of the grain.

Contra Costa.

HORTICULTURAL JOTTINGS.—Antioch *Ledger:* Thos. Morgan has a block of lots nearly all set to grapevines. About 300 are two years old—or rather two years ago last January the cuttings were planted. Last year from 30 of these vines 80 pounds of grapes were taken, and they are now showing a fine fruitage. On many vines of the Sweetwater variety, two years old from the cuttings, are a dozen bunches of good-sized grapes. The Muscat and Malaga show the finest growth, several of the two-year-old vines having a circumference of seven or eight inches, and the set of grapes must be very gratifying to the vineyardist. A few apricot trees in the same block, planted one year ago, have fine specimens of fruit, only a dozen or so of the abundant fruitage set upon the branches being allowing to remain. The lot is entirely surrounded by a hedge of Monterey cypress and presents a very attractive appearance. Mr. Morgan owes his abundant success to careful cultivation and painstaking attention to details....In the orchard of N. W. Smith, in Lone Tree valley, we have noticed remarkable instances of continued vigor in the usually short-lived peach tree. Several trees not less than 19 years old are perfectly free from blemish, loaded with fruit, and show a growth for the season of from two to three feet.

El Dorado.

CHERRIES.—*Record-Union*, June 18: W. H. H. Fellows, of the Placerville *Observer*, in his work of making known the superior quality of El Dorado products, has been forwarding to various points boxes of cherries grown 2700 feet above sea level, and without irrigation. There certainly have been no cherries seen in Sacramento superior to these, and few their equal. They are very large, beautifully colored, of charming flavor, and of a texture that will bear shipping almost any distance without deterioration. El Dorado will in the near future become one of our greatest cherry-producing sections.

Humboldt.

HAY AND GRASS.—Eureka *Standard*, June 16: In some portions of Eel River valley farmers have commenced cutting their grass hay. The crop is universally good, just as all grain crops promise to be. So far as we can learn, grass on the ranges is generally good—better than at this time last year. Perhaps it would be well for farmers to save their straw, as far as possible, for it is hard to predict what sort of season the next may be. Time has been when baled straw sold for a very fair price for stock-feeding purposes.

SPRING CLIP.—All accounts thus far agree that the spring clip of wool in Humboldt county will be unusually heavy and good. After the discouraging reports which came from the ranges last winter, we had prepared for a different outcome when shearing time arrived. But the winter reports were exaggerated. Advices received all the way from Kneeland Prairie, thence to the Mad river, Iaqua, Yager, Fort Baker, Van Duzen, Blocksburg, Island Mountain, Spruce Grove, South Fork, main Eel river, Elk Prairie, Upper and Lower Mattole valleys, to the Cape Ridge and Bear River ranges, induce the conclusion that the clip will be greatly in excess of last year's. The prospect is encouraging, as well as being good for remunerative prices, and yet Humboldt county drags along without receiving the benefits which would accrue from a full fledged woolen manufacturing establishment.

Los Angeles.

PROCEEDS OF THE FLORAL FAIRS.—L. A. *Times*, June 16: The annual meeting of the Flower Festival Society was held at the Woman's Home yesterday, with a goodly attendance. Mrs. R. M. Widney, the president, made her report—quite a lengthy and interesting document—setting forth fully the objects and methods of work in the Woman's Home; the work and needs of the exchange; the library and educational work; the attitude of the society toward the wage-workers and the way in which they seek to assist employe and employer, and the great need there is of a work of love among the unfortunate and distressed of our land. The report of the recording secretary, Miss M. M. Fette, reviewed the history of the association. The first flower festival, in 1885, secured $2000; in April, 1886, the festival netted $4100; and with the results of their efforts this year, they have now secured a valuable lot of land and a handsome building, the latter costing about $14,000, exclusive of furniture, all of which is paid for. The report of the financial secretary, Mrs. Abernethy, showed a balance of $300 in the treasury.

HOW TREES AND VINES ARE DOING.—Santa Ana *Standard*, June 18: The apricot crop in the Santa Ana valley is rather light this season, but the peach, apple and pear crop will be first-class. The peach trees are all overloaded, and many will break down unless some of the green fruit is picked from the trees. Grapes are getting a fair size, though the crop will be lighter than last year. English walnuts are heavily loaded, and we notice that our neighbors at San Juan, Tustin and Anaheim are blessed with a fine crop of nuts.

Sacramento.

DATE-PALMS FRUITING.—*Record-Union*, June 17: George Rich, who resides about six miles from the city on the upper Stockton road, has a date tree (commercial quality) which has put forth six stems, each of which is filled with berries and blossoms. This is the first time this tree, which is now eight years old, has ever borne.

LICORICE.—Isaac Lea, near Florin, has gone into licorice-growing on a large scale and made a success of it. He was reported to have 16 tons of the root cut and baled, ready for shipping to Chicago, a fortnight ago.

San Bernardino.

EXTENDING THE GAGE SYSTEM.—*Press and Hort.*, June 18: Matthew Gage has purchased from S. C. Evans about 2400 acres of the Hartshorn tract, lying south of and above the Riverside canals; also about 800 acres from the Riverside Land and Irrigating Company, of the Provost tract adjoining, all at $75 per acre. He will now extend his canal over the land, and thus be enabled to sell it at from $300 to $500 per acre, with water, which will make another important addition to the city of Riverside.

San Diego.

OSTRICH CHICKS.—San Diego, June 20: Fifteen ostriches have just been hatched from a nest of 17 eggs at the Mountain Fair View ostrich farm, in this county. This is claimed to be the best record ever made in America. There are now 80 birds at the farm.

San Joaquin.

IRRIGATED GRAIN.—Stockton *Independent:* Charles Miller, who farms a tract owned by the Weber heirs, on the north side of the Calaveras river and west of the Cherokee Lane road, irrigated a piece of summer-fallowed grain, which is yet green and stands more than four feet high, with well filled heads fully four inches long. Farmers who have noticed the grain believe it will yield 40 bushels per acre. An adjoining field, which was not irrigated, will yield about 10 bushels per acre. John E. Moore, the well-known farmer south of the Calaveras and about three miles from the city, also has a fine piece of irrigated grain, which will yield more than twice as much per acre as his unirrigated land. D. A. Learned lives a short distance southeast of this city. Mormon channel runs through his farm, and he turned water over 65 acres of the tract, but could not irrigate the remaining 40 acres. He says the crop on his irrigated tract will be four times heavier than the yield on the 40 acres which could not be flooded.

Santa Barbara.

CHERRIES AT LOMPOC.—*Record:* The fruit from the orchards of C. E. Carter and W. J. Robinson is equal to the best yield ever reported from the famous cherry belt about S. F. bay. The finest cherries of the Gov. Wood variety we ever saw are from C. E. Carter's. Some of his trees have a yield of 200 pounds. None of our orchards are more than 10 years out. This is as far south as the cherry is known to be grown with profit.

EUCALYPTUS FOR WIND-BREAKS.—The farmers in the valley have come to the conclusion that it will enhance the value of their lands to put out gums to the west and north. It will do more. The value of crops within 500 feet of the gums will more than double their yield. The wood is a great item, and the protection to fruit and change in climate is almost incalculable.

THE CROPS.—Santa Barbara *Independent*, June 18: C. F. Bassett, a prominent member of the S. F. Produce Exchange, who has just arrived from the northern portion of Santa Barbara county, says that in the Lompoc valley the crops of barley, beans and mustard are looking exceptionally well. In the Santa Ynez valley a larger acreage has been planted than ever before, and the crops of barley and wheat are looking much better since the rain of last week. Heading of grain had just been commenced in Lompoc valley and will begin this week in the Santa Ynez; the quality of grain in the latter section will be much better than last season. The honey crop in these sections promises much better than a month ago. Parties are beginning to extract. Reports from the dairy sections are not favorable for a long season for dairy products.

Santa Clara.

THE MONEY IN CHERRIES.—San Jose *Herald*, June 20: Reliable figures concerning the cherry crops begin to come in. Ex-Mayor Settle, who lives in the Willows, reports an average of $3 a tree for white cherries, and $1.50 a tree for black ones. This is an average of about $220 an acre, and a light crop at that. The whole cost of cultivation, picking and marketing would certainly not be more than $45 an acre, so that a clear profit of $175 an acre is realized.

Solano.

EDITORS PRESS:—Yesterday and to-day were the hottest of the season; the mercury stands at 118°, and the north wind is blowing. Fruit is ripening very fast, with a good chance to burn. The hot spell two weeks ago damaged fruit somewhat, and much has fallen off since. What the result of this last one will be is hard to tell. Most of the grain is too far along to shrink much. There is no great excitement here now in the fruit business. Those who have not sold will mostly dry, commencing this week. Some were drying last week near Putah creek. A cannery was projected at Winters, but starting so late in the season, they were not able to get the necessary machinery in; so they are drying. They have some 50 cutters at work, and pay 15 cents per hundred for cutting. At present they are short of help and behind with their work. They are paying 1½ cents per pound for 'cots. The grain crops in Suisun valley are good, and farmers are well pleased with the prospect of good prices. Barley is nearly all headed, and some thrashed which turned out from 15 to 25 sacks per acre. Wheat is better than for several years. Summer-fallow is a little shrunk, and the winter sown will be if the north wind blows a month or two longer.—G., *Vacaville, June 19th.*

Sonoma.

THE WOOL SALE.—*Democrat*, June 18: At the Cloverdale wool sale Wednesday about 490,000 pounds of wool changed hands, the prices ranging from 22 cents to 23¼ cents, the highest. The largest lots were owned by E. M. Hyatt, J. Ludford, W. Rock, Cooper Elkins and J. Vassar. The aggregate amount of money received by the sheep-raisers of Sonoma, Lake and Mendocino counties is estimated to have been between $100,000 and $150,000.

Sutter.

DIFFERENT HARVESTERS.—*Farmer*, June 17: W. T. Blevin & Sons are using a Myers harvester, and from all accounts it is working satisfactorily. This, we think, is the only Myers harvester in the county. Suel Harris, B. F. Walton and H. A. Walton, Jr., are using the Best harvesters, all working successfully. Eli Davis, Berg Bros., J. E. Plaskett and A. H. Wilbur are using the Shippee, and Wm. Sanders and the Hedgers are using the Houser harvester, all working well.

MAKING 'COTS PAY.—Marysville *Appeal*, June 17: Hugh Jones, of Sutter county, has netted from 2 to 2½ cents a pound for his apricots shipped to the bay, over and above the cost of boxes, freight and commission. The cannery has agreed to pay him 1½ cents a pound for his choice Moorparks. He has 12 acres in apricots. The trees were planted in 1883, 24 feet apart, and have made a splendid growth. The owner declares that it pays to give the trees plenty of room. This orchard is on high land that is not irrigated and has never been flooded. It will produce over 100 pounds to the tree this year. The fruit was thinned out and will go about seven to the pound. Mr. Jones is employing white pickers, paying them $1 a day and board. They pick 16 to 17 boxes a day each. This is much better than the average by Chinese, and the proprietor says white labor pays best. This orchard is plowed at a cost of only $1.35 an acre per year. The gang plow used was designed by the owner, and he will show anybody how to make one of the same pattern, which he has found very effective for the purpose.

THE SUTTER CANNERY.—Marysville *Appeal*, June 17: The Sutter Packing and Canning Company began operations for the season on last Monday, and are consuming as much of the supply of apricots as about 80 boys, girls and women can handle, and they advertise for 50 more girls at once. J. J. Pratt, the superintendent, said yesterday that the canning apricots had just commenced to come in, and that the present force is putting up over 2000 cans per day, and with the additional force he expected to make over 3000 cans, or about 20,000 per week. The season's run would be about four months. The places of the Chinamen at present employed are being gradually taken by boys, as they become acquainted with the business. Before the close of the apricot season he expects to have about 100,000 cans, nine-tenths of which will be shipped to Chicago. Contracts are being made with a number of orchardists for peaches, and the cannery's output of that fruit will be largely in excess of the apricots. Special orders for other canned fruits are coming in rapidly, and it is probable that a number of expert canners will have to be secured, with some additional apparatus, to fill the demands. The wages made range from $7 to $15 per week by piece-work.

Tulare.

APIARIAN APPROPRIATORS.—*Delta:* One day last week Mrs. DuBrutz, after making two dozen jars of jelly, placed them on the back porch to cool. A little later she found a swarm of bees in possession, and before night most of the jars were half empty, and seven of them entirely so. There is an apiary a short distance from the place.

BARLEY IN THE SIERRAS.—Visalia *Times*, June 16: As an illustration of what can be done on mountain ranches, a gentleman at Mountain View has just cut eight acres of his barley crop for hay, which yielded 33 tons, a little over four tons to the acre. That portion of the crop saved for grain, it is estimated by competent judges, will yield 75 to 80 bushels to the acre.

THE COOL WEATHER of the past 10 days has been injurious to the fruit crop, particularly apricots, retarding their growth and preventing their ripening. The grain crop, too, fails to ripen, and in some sections of the county a week or more of good sunshine will be needed to mature the grain sufficiently to be harvested.

Yuba.

ALMONDS PROMISING.—Marysville *Appeal*, June 17: The almond orchard of Joseph H. Hoskins, about six miles northeast of town, is a most interesting study in the horticultural line. There are 7000 almond trees in bearing. The varieties are three or four, both hard and soft-shell. The condition of the crop this season is much better than it has been for years. There are several smaller almond orchards in the locality, namely, those of Messrs. Stall, Smith and Hall, and these are in the same flourishing condition.

NEW BARLEY is coming into market very slowly, and probably will not reach the shipping points to any extent until one-half is harvested. H. C. Clark, of Live Oak, it is claimed, sent the first to market. His crop will average 40 bushels to the acre.

FRUIT RUSHING.—The Briggs orchard on Monday shipped 1058 boxes of fruit. Yesterday the shipments from this orchard were 747 boxes of peaches and apricots, and those of the other orchards combined about 900 boxes.

ARIZONA.

TROPICAL GROWTHS.—Phœnix *Herald:* At the residence of Mr. Adolph Asher our reporter saw some fine banana plants growing to-day, and on one of them quite a lot of fruit is making its appearance. No doubt the banana will do well here, and large numbers of plants should be set out. Those on Mr. Asher's grounds were cut down, so far as the leaves were concerned, last winter, but came out promptly this spring and have grown immensely. While we note the growth of the banana here, we also call attention to the fact that on the grounds of the proprietor of the *Herald* a pineapple is growing as though it were on native soil.

A CITRUS ENTERPRISE.—Mr. A. F. Kercheval, a thorough and skillful cultivator of the orange in Los Angeles, Cal., has been in our valley for several days past, and has satisfied himself that the conditions here are most favorable for orange-raising. He has secured a section of land and will prepare it this fall for planting to oranges. He casually informed a *Herald* reporter that if orange trees in his orchard were treated as they are here by those who are trying to raise them, he would expect them to die, and if they live here under the treatment they get, he is certain they will do wonderfully well with proper treatment.

OREGON.

CROPS IN LANE COUNTY.—Cor. *Willamette Farmer*, June 10: Fall grain looks perfect, and winter oats are good. Barley good; early barley quite tall. Volunteer hay is very heavy, with spring cheat and pasture generally extra; but timothy is a poor crop; other early grasses are rank. Gardens are late, but if the present showers continue sufficiently they will be good. All late sown grain looks well, especially barley. Fruit of all kinds is scattering, except grapes. Those blackberry vines that are left may fruit well, as they are just beginning to bloom. This report only refers to land that has been well tilled. Otherwise the dog-fennel crop is superb. Orchard grass and Kentucky blue grass are recommending themselves in this region, and the same can be said of Lincoln grass on dry ground.

DEATH OF ALDEN.—Many Californians will read with melancholy interest the announcement of the death of Charles Alden, the inventor of the Alden fruit evaporator. He committed suicide at the almshouse in Randolph, Mass., on June 21st. He had threatened to kill himself if he should be reduced to the extremity of going to the poorhouse. He was 76 years of age. His life was full of ups and downs. From his invention for evaporating apples he received $600,000, which he lost, with other money, through carelessness and speculation. Up to the time of his death he was at work on chemical salt for preserving cooked fish. He was a native of Randolph, and moved in 1840, making his home in Newburgh, N. Y., at which place he owned one of the finest residences.

PACIFIC GROVE AUCTION.—On the 28th, 29th, and 30th inst., an opportunity will be given to the public to acquire the ownership, on easy terms, of a lot at one of the most lovely summer marine resorts on the Pacific Coast—Pacific grove, Monterey. Fourteen hundred lots in this famous location will be sold. Excursion trains will run to the grounds on the days of sale. Further particulars will be found elsewhere in this issue.

GAS ROSIN.—You can make your own gas-fitters' cement thus: Melt up 4½ lbs. rosin, 1 lb. beeswax, and stir in 3 lbs. Venetian red; it will hold gas in.



Learners.

[Written for the RURAL PRESS by FANNIE H. AVERY.]

Oft when I am sitting reading,
My children come and stand
Close by my knee, and peer into
The book held in my hand.

They want to see the engravings,
And know just what they are,
And are curious to hear the history
Of insect as of star.

They know the books I read the most,
And love to linger o'er,
Are those that tell about the things
Of sea, and sky and shore.

So little brother and sister,
With large and earnest eyes,
Come to ask each picture's meaning
And list with great surprise

While I essay in simple words
To tell, as best I can,
Of the marvels and the beauties
The eyes of man may scan.

Dear children! they think their mamma
Can explain all about
The why and wherefore of all things,
And settle every doubt.

But some time they'll know far better—
That she they love so much
Is only herself a learner,
And always will be such.

Whenever I answer my darlings
The questions that they ask,
Deep joy wells in me that such is
My privilege and task;

And my thoughts go winging upward
To God in grateful prayer,
That He has given unto them
Life's heritage so fair.

Women in California Agriculture.

Some months ago we mentioned an association of college-bred women of California, a committee of which had undertaken to ascertain what California agriculture offers as a field for the enlistment of young women. This committee reported recently and the full report is published in the June *Overland*. Nothing very definite in the way of conclusions is reached in the report, but the information collected is interesting. The document is written in the first person singular, but there is no signature.

It may perhaps be of interest here to give a few selections from replies to the question which refers to "the health, profit and mental development offered to women by the office, the store, the schoolroom or other indoor occupations on the one hand, and agriculture on the other."

A woman who has 23 acres of land, which she bought, and has personally supervised for 10 years with no help from sons, supporting two besides herself, says: "I will say, women work at a disadvantage as regards prices in all occupations, and having to hire all labor done is a great disadvantage in farming. But it has been very profitable to me, and has very much improved my health. One year I cleared, above the price of picking the fruit, $4000, selling the crop on the trees. The year the trees were seven years old I employed Chinamen, picked the crop and cleared $3400. This, exclusive of $300, was from 12½ acres. One year, fruit being low, I made only $2400. I have learned the business by experience, and study every tree on the place. Have employed and trained my own Chinamen, but now have a white foreman."

A lady engaged in teaching writes somewhat as follows: She has ten acres purchased, all cultivated, devoted to fruit trees, does not supervise, and hires all help. Present valuation of place $2000. Bought one place, improved it, and sold at large advance. Has still another which has not come into bearing. She evidently thinks it pays.

Another experience is of a lady who purchased 160 acres about ten years since, has 100 under cultivation; the land is now valued at nearly $4000; with buildings and implements, $500 more. During the early part of the time she kept boarders in order to help pay for the land. She thinks she has not succeeded very well financially—but during these ten years she has supported a family, and has accumulated this property of $4500 and is free from debt.

Another also purchased land—155 acres—has 25 under cultivation in vines, and farm is valued at $8000, besides house. She personally supervises work. She supports a family of four, none of whom help her. I quote verbatim: "I think the vineyard business a good business for many women, and especially those with nervous ailments and dyspepsia. I knew nothing about it when I commenced—started without a dollar of our own. Borrowed money at ten per cent; grubbed and put out 15 acres the third year. I think we shall be able to pay all we owe this year, but have nothing ahead. I was a nervous and ailing woman; could do nothing else. This living has brought me comparative health."

I also quote from a long article written by a woman who has 400 acres left her by the death of her husband four years ago. She has lived on a farm 18 years; has personally supervised it since the death of her husband; has 350 of the 400 acres devoted to cereals. She says: "I do consider it a profitable occupation, and one of the most healthful a woman can engage in, and it is my opinion that there is no more advantageous avenue open for woman to expand her views and ideas upon all subjects, and improve herself mentally as well as physically. She must read enough to familiarize herself with the passing events of the day in her own and foreign land, watch well the market receipts, also reports as to expected crops in Europe, in which she is especially interested. Her mind is kept continually alive, and her pride stimulated. She is proud to know that in some respects she is equal to the opposite sex in carrying on a business which has been followed chiefly by its members."

A woman whose regular occupation is one of the professions, sends among other interesting material the following: "I have a small tract of six acres of orchard and garden, where I have filled in all my spare time for the past 16 years most agreeably and profitably, so far as health is concerned, in working therein, or superintending the work in person. Of course my profession is my means of support, while my floricultural and horticultural labors have been for pastime, and not for financial profit. I am satisfied, however, that women can earn a comfortable living with a few acres of garden land; and the cultivation of the mind and development of body which an intelligent person can derive from such vocation bring a double compensation. Recently I have added to my place improvements in the shape of about three acres of apricot orchard, and some choice raisin grapes, from which a profitable return will be realized, I doubt not, in due time."

A letter from a lady in Southern California states that she owns 34 acres, obtained by purchase, on which she has 200 varieties of orchard fruits, marketed in local and Eastern markets, all known varieties of small fruits, 100 varieties of vines, bearing raisin, table and shipping grapes. She personally supervises her work and supports a family of four. Answering the question if she would advise women to engage in such work, she says: "Yes," with the following qualification: "Only women of mature judgment, pluck and native energy should attempt it." She advises the co-operation of two or three, as in the case of Miss Austin and others at Fresno.

One might suppose the 5000-acre farm was a bequest, but it is not so; only 320 acres were inherited; 2000 acres are now devoted to cereals; the remaining 3000 to a sheep and cattle range. The owner writes: "I have found agriculture a profitable and healthful occupation. But for a woman it has cares and trials, and unless one has a strong constitution, and plenty of will-power, and determination to succeed, I should not advise her to engage in it."

The one letter that was something of an intelligent demurrer, came from a lady whose cool calculation would seem to serve well as a counterbalance for a too ardent enthusiasm. I quote at length from it:

"I regret to say that candor compels the statement that my observation does not warrant the conclusion that many women are physically competent to engage in the agricultural, horticultural or viticultural pursuits successfully, especially if they are to depend to any great extent upon themselves to perform the manual labor involved in carrying on any of these vocations. Women having a good bank account, large executive ability, a special taste for such a business, and the necessary practical knowledge to at least commence it understandingly, may, and probably will, succeed. I have known of a few such instances, but the number would not justify the conclusion that every woman, without some general knowledge of business and of these pursuits, can engage in the same without encountering disappointment and loss. During 10 years' residence in this vicinity, devoted mostly to fruit and raisin-grape culture, I have known several women who, with sufficient courage, intelligence and will-power to have carried them successfully through some other pursuits, fail in these; sacrificing some means, two or three years of valuable time, and in one instance at least, health and life, by a too determined persistence in a business which requires more money, or muscle, or both, before they yield returns, than is generally admitted. I cannot, therefore, without a note of warning, advise every woman to enter a field so new to a majority of our sex."

I give, almost entire, two other letters which may be worth attention.

From the owner of 20 acres, nearly all of which are in oranges: "I regard fruit culture a very healthful and paying occupation, especially for women who have children, boys in particular, growing up to assist them. It is not only health-giving, but in all its tendencies highly refined and preferable, as far as I know it, to any indoor employment. I have made a success of my undertaking, though trained to it only in the severe school of experience; and while I know of no other woman in this immediate settlement who is similarly engaged, I presume there are many throughout Southern California. With a clear head, patient waiting and economical management, a woman may succeed as well as the majority of men, as her natural love for order and beauty tells greatly in a business like this, where the places are kept like gardens; and aside from the usual drawbacks to fruit-growing in the shape of insect pests, there are no discouraging features in this almost perfect climate, where one lives forever in the open air, eats wholesome food and dresses solely for health and comfort."

Again, from a woman not herself engaged in agriculture, but occupying a position that necessitates observations thereupon: "As far as health is concerned, there can be no question of the advantages offered by outdoor employment. In this climate agricultural pursuits are far more agreeable and less laborious than in the Eastern States, and women are capable of performing much of the work. The profits, as with the opposite sex, depend upon the methods employed, the judicious start, the quality of trees and vines planted, the care taken of them, etc., all of which require the exercise of an intelligent mind. I see no reason why women should not train their intellects in this direction, and with gratifying results. If the occupation be not too arduous and confining, it seems to me that a genuine interest in the cultivation of the soil, with the special education attendant upon it, would have a tendency to quicken all the perceptive faculties and broaden the scope of thought so that leisure hours would be spent in a more profitable manner than if a person were cramped within doors, with a monotonous daily routine while gaining a livelihood."

I have drawn thus fully from the correspondence, thinking that the personal expressions of women actively engaged in the vocation in question would be of more interest than theoretical and speculative opinions. None of the committee who conducted the correspondence had any experience upon which to base opinions. In the course of their inquiry, however, they met not a few very interesting women who till the soil in some form or other as a vocation. All these said that they found trials and vexations, and sometimes disappointments. But the same are encountered by men as well, and in all kinds of business.

The general opinion seemed to be that an inordinate degree of manual labor is not needed; certainly not, if one can begin with some capital. Agriculture is a *business*, and requires business management as much as other branches of industry do, and this management is what the owner is expected to give. One cannot think and plan for the future and be plowing or planting trees at the same time. As one lady expresses it: "It is cheaper to keep a man to do your hard work and do your own thinking." This lady left San Francisco nervously worn out with society life. Her husband bought a small farm, of which she has complete control, receiving him Saturday evening on his weekly flight from his city business. She says on no account could she be persuaded to abandon the life which has restored her to health and independence and return to her former idleness; and such cases might be multiplied indefinitely.

One thing upon which the committee desired especially to have information was the result of co-operation by women. They were unable to get communication or intercourse with any cases of this, and by only one of their correspondents was it advised. I do not take this as an indication that co-operative association among women would not yield fruitful results, but that experiments of the kind have as yet scarcely been tried. The probability of success from such undertakings seems to me worthy of especial investigation.

The general conclusion, then, seems to be that the farm will yield to energy, business skill, and perseverance, a profitable occupation, both financially and physically, to women as well as to men. As to mental development, it seems to me there is no chance for intelligent cavil. Close and toilsome labor, in door or out, city or country, forbids intellectual work, but outdoor work perhaps less than its opposite. Country life, of course, precludes, more than life in town, the *social* intellectual stimulus; but if we consider the list of occupations by which we gain our livelihood, we shall find few in which the highest intellectual stimulus goes hand in hand with the occupation itself. Men or women, we must in most cases have sufficient earnestness, persistence and belief in the intellectual life to carry it on in addition to—even to a great extent in spite of—our daily work, if we are to carry it on at all.

The Gamut of Theft.

Taking $1,000 000 is called Genius.
Taking $100,000 is called Shortage.
Taking $50,000 is called Litigation.
Taking $25,000 is called Insolvency.
Taking $10,000 is called Irregularity.
Taking $5000 is called Defalcation.
Taking $1000 is called Corruption.
Taking $500 is called Embezzlement.
Taking $100 is called Dishonesty.
Taking $50 is called Stealing.
Taking $25 is called Total Depravity.
Taking one ham is called War on Society.

—*Washington Post.*

Polly's Life and Death.

[Written for the RURAL PRESS by C. E. B.]

A little more than ten years ago, passing by a bird store on Kearny street, I was attracted by a parrot of very bright, fresh plumage, which I fancied was naturally intelligent.

Being a little lonesome much of the day, when the adult members of my family were away from home on business, I concluded to amuse myself in the training of the young bird, and soon bought it of the dealer for $35.

It was about one foot long, bright, gorgeous green plumage, with a silken yellow tuft at the back of the head. I taught my parrot much as mothers teach their infants to talk. Its vocabulary numbered about 200 words. A short sentence was acquired, with careful teaching, in three or four days. It seemed to appreciate what it said and what it was taught. She recognized many, but her affections were exclusively centered on myself. Her jealousy was furious, attacking any one ferociously who paid attention to me. The words were spoken with perfect clearness, and the elocution thoroughly humanized. She was full of fun and enjoyed play remarkably.

To recount her doings would fill many pages. At the morning meal, at the table, she had been taught to use a napkin like a little child, and would wipe her mouth very cunningly. But before eating her breakfast she must have her face, bill and feet nicely washed and wiped. Having become accustomed to this, she liked it and insisted upon it.

When asked whose Polly she was, she would answer, quite distinctly, "Mamma's dear, sweet, pretty little Polly." If found fault with and called naughty, she understood perfectly and was always anxious to make up and be forgiven, and she would say, earnestly, "Do you like me, Polly? Do you love me, Polly?"

Kind old Dr. Blank always treated Polly with great respect, and Polly thought a great deal of him. When the doctor treated her for some sickness two or three years before her death, she appreciated his efforts to cure her. And the last week of her life she frequently called in pitiful tones, "Doctor! doctor! O doctor!" possibly feeling symptoms of the old malady. But the doctor had been gone to England a year, and this indicates a vivid memory certainly equal to any child. She, from being taught, of course, would sing, "the doctor's gone to London," with proper intonation. When the doctor was accustomed to call aforetime, Polly seemed to understand his pull at the bell, and would call to the servant, "John, the doctor's come!" The master of the house was not friendly to the bird, and would accost her roughly whenever they met—putting in, jokingly, some very ugly words, saying, "I would like to wring your neck." Polly was taught by her mistress never to repeat these naughty words, and she never did—neither these nor any other objectionable phrases. Surely this indicates a capacity for discrimination very remarkable.

Polly was pleased with music, and would listen with deep attention to the piano. She would sing "Marching Through Georgia," giving the proper cadence and peculiar swing to the words, particularly in the chorus. One of her prettiest performances was to sing a waltz (la, la, la, etc.) and dance to the tune, turning round quite properly, and lifting her wings slightly, like a lady lifting her dress. This was so natural and cunning as to create much surprise in the beholder, and Polly often had a sidewalk audience as she indulged in this pretty capering at the window.

I must not omit a touching little incident, illustrative of her affectionate nature and sweet, loving confidence in her mistress. On one occasion my husband was absent over night, and, feeling lonely, on retiring for the night, I put Polly's cage on the vacant pillow, and, with the gas burning, lay awake for some time, Polly and I holding a pleasant conversation. After awhile I set the cage away, took Polly out, and placed her on my breast, pulling the quilt up over her. In this position we both fell asleep, and in the morning I found my dear bird still sleeping peacefully there like a little child.

My attachment to Polly, long a solitary companion, became strangely strong in the 10 years I owned her; dead, I mourned her in a manner that seemed strange to my friends, if not ridiculous. I felt that an intelligent, appreciative creature had been forever blotted out of my life, and I was as much affected as one to whom was lost a faithful friend.

I have no inclination to own another parrot, for no other bird shall desecrate the place that my dead Polly has in my memory. I provided a fund for her in case I should die first.

She died of intestinal inflammation, brought on by exposure to cold through the neglect of a servant. A skillful taxidermist has mounted her in all the familiar beauty of her rare plumage. She occupies a favored place on my mantel, fostering a world of agreeable associations.

San Francisco.

WILD GEESE DESTROY A KITE.—A harrow-shaped flock of wild geese, the Waterbury, (Conn.) *American* says, went northward over the city recently. They seemed to attend sharply to the business of traveling until they spied one of the numerous kites the boys in the northern portion of the city were flying. This

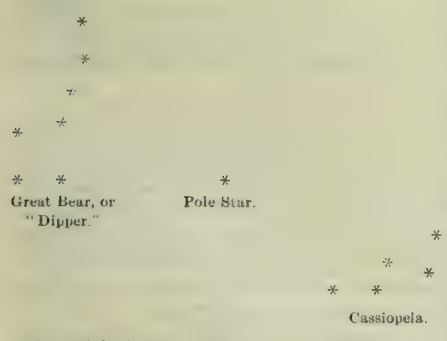
kite was uncommonly high in the air, and the geese objected to it. At least they circled about it two or three times, and then four of their number, delegated for the purpose, attacked the kite and tore it into shreds, and went on their way.

A B C of Astronomy—No. 2.

[Written for the RURAL PRESS by ASTRON.]

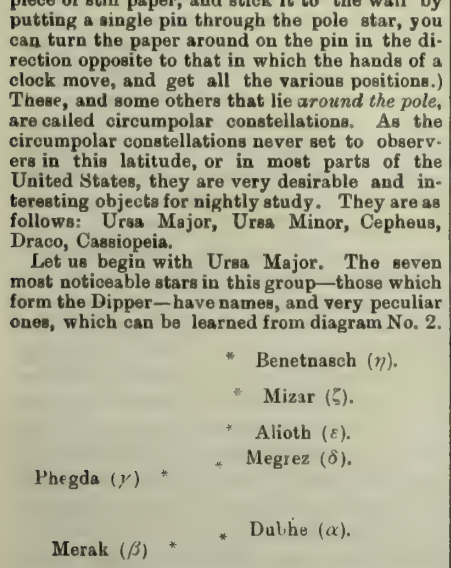
In my last, which was also my first, lesson on astronomy, I made a few general statements illustrative of the science, showing to some extent its scope and aim, and endeavored to kindle some sparks of enthusiasm for the study of this great branch of human knowledge. Having thus laid the foundation, it will be now my duty and pleasure to build the superstructure, and with your (my readers') help and encouragement, to make it a labor of love to your teacher.

In my former article, I suggested how you might become acquainted with two important constellations near the pole, viz.: Ursa Minor and Ursa Major, the Little and Great Bear. Now, if you look at Ursa Major in its entirety, and then cast your eye across the northern heavens, taking in line the pole star, you will notice another constellation or group of stars at about the same distance from the pole star as Ursa Major, in form somewhat like a capital W, with the open part toward the pole star. This constellation is named Cassiopeia. I want you now to become quite familiar with these constellations; you will find it a great help to you in your future studies of the Northern Hemisphere, affording you the means of locating the other constellations in these regions of space.



At 9 o'clock in the evening, in the month of July, the constellations of the Dipper (Ursa Major) and Cassiopeia, with the pole star (Polaris) midway between them, appear nearly as in the diagram. And at all hours of the night, and all seasons of the year, these stars keep the same *relative* positions; but they appear to move around the pole star—as the sun appears to rise and set—so that sometimes the Dipper will be above and Cassiopeia below the pole, etc. (If you copy the diagram on a small piece of stiff paper, and stick it to the wall by putting a single pin through the pole star, you can turn the paper around on the pin in the direction opposite to that in which the hands of a clock move, and get all the various positions.) These, and some others that lie *around the pole*, are called circumpolar constellations. As the circumpolar constellations never set to observers in this latitude, or in most parts of the United States, they are very desirable and interesting objects for nightly study. They are as follows: Ursa Major, Ursa Minor, Cepheus, Draco, Cassiopeia.

Let us begin with Ursa Major. The seven most noticeable stars in this group—those which form the Dipper—have names, and very peculiar ones, which can be learned from diagram No. 2.



Mizar is a double star; its companion is named Alcor. This double can be seen with a glass of very low power; some persons can see it with the naked eye. It should be noticed that a line drawn from Merak through Dubhe, and carried about five times as far as those two stars are distant from each other, will bring you to the pole star. Hence these two stars are called the "Pointers."

Astronomers have agreed to use Greek letters to designate the different stars in each constellation. Thus, in the above diagram, Dubhe is α (alpha) of Ursa Major. Benetnasch is η (eta) of Ursa Major, etc. It will therefore be convenient to have the whole Greek alphabet to refer to, although we shall rarely have occasion to use more than the first six or eight letters.

Greek Alphabet.

α, Alpha,	ι, Iota,	ρ, Rho,
β, Beta.	κ, Kappa,	σ, Sigma,
γ, Gamma,	λ, Lambda,	τ, Tau,
δ, Delta,	μ, Mu,	υ, Upsilon,
ε, Epsilon,	ν, Nu,	φ, Phi,
ζ, Zeta,	ο, Xi,	χ, Chi ("ki"),
η, Eta,	ξ, Omicron,	ψ, Psi,
ϑ, Theta,	π, Pi,	ω, Omega.

YOUNG FOLKS' COLUMN.

The Mud-Builders.

[Written for the RURAL PRESS by AUNT SUSIE.]

Many of the children who read the RURAL PRESS know what a colony is. Perhaps some of them are even members of a colony. If so, they know that the first thing the colonists do, when they go to a new country, is to choose a place for their homes. They next build their houses. Sometimes the houses are made of wood, then again of brick; and even mud, in the shape of great thick walls, hardened in the sun, give protection to people when they first settle in a new country.

Now I will tell you of a colony that makes its houses of mud, and will call them the Mud-builders.

One day, as I was walking around the corral, I heard a great twittering, and, on looking up, saw a great many little birds sailing most gracefully about, and every now and then, in their flight, showing their white breasts. Their wings, with sharp points, cut the air with great speed. As I watched, it seemed to me I heard them say, "Where shall we go? where shall we go?" Then the leader answered, "Stay right here—right here!" "What shall we do here—do here?" called back the birds. "Well," said the leader, "we are mud-builders, you know; so mud we must have, at any cost. Some swallows can build without mud, but we don't know any other way to make a house; so this is the place for us, as there is plenty of mud here." "Mud here! mud here! where? where?" call the birds. "Follow me! follow me—me!" answers the leader. Then with a rush they follow him to the edge of the pond, where the pretty, soft-eyed Jersey cows go to drink, and there they find so much mud they don't know where to begin. They chatter away and are very happy over it, then look around and see all the eaves of the barns, and decide no better place can be found; so in pairs they begin their homes. Both birds build. One flies to the chosen place with its bill full of mud, puts it down on the wood and works over it till its mate comes with a bill full; then the first one flies off for more, while the other one works, and in a little while the nest begins to take shape. On they work for hours without rest. I could tell by the wet mud how much had been done in one morning. At last they have enough to form a resting-place—more like a little bracket on the wall than anything else I can think of; then the sides are put on, then the top, and each time a bird comes home with mud it darts into the nest and rubs off any mud that may be on its feet, then puts the lump of mud from its bill on the edge, and quite a lump it is, too. The nest is never left unguarded, and each bird knows its own. There is no quarreling, no calling out "Now that is mine—you sha'n't have it!" but all seem so happy; and when a nest is done it is something the shape of a pear, with the big end on the barn. The opening is very small. As I watch I can see two little heads peeping out from a finished nest. They look very proud as they gaze around upon their neighbors who have not yet finished their homes, and now and then they say, "We are done—are done—done," and the neighbor cheerfully calls back, "We will be, soon—soon—soon," and so they chatter and work, hour after hour.

There are 86 nests under the eaves. Just think of the times those little birds have flown down for mud! and while getting it they keep their wings so high no mud gets on them. Surely one can learn a lesson in patience from these little birds. They work till the sun goes down behind one hill and the big yellow moon comes up from behind another hill, and the stars come out; then the little tired but happy birds go to sleep, each little head under a wing, and so they sleep till daylight; then out they fly and dart here and there through the air for their breakfast. They are the farmer's friends, you know, as they do not light on the trees and eat the blossoms or fruit, but take their food on the wing, eating up many insects that would prey upon the fruit. After breakfast they go to the pond and have a bath. I saw one having *such* a good time. His mate was on the ground near by, but seemed afraid to go in. Her mate called, "Come in—in—in!" but she called back each time, "Don't dare—too cold—too cold!" so he had to take his bath alone. Then they went to work and finished their nest. They flew around where there was dry grass, and took little bits and made the nest all soft and warm inside.

And so the days go by—very happy days for each little bird; and at last in each nest lie tiny eggs, and the mother bird sits on them and keeps them warm; then, all at once, the shells break and out come dear little birds. Their mother thinks they are beautiful, I am sure, even if they haven't many feathers; the father bird gets food for them, and altogether it is a very happy little bird village.

Answer to Egg Puzzle.

[See RURAL PRESS of May 28th.]

The supposition that 5 eggs for 2 cents is at the same rate as 3 eggs for 1 cent and 2 for 1 cent is true only so far as 10 lots of eggs are concerned. Then those belonging to B would be gone, while A would have 10 eggs left. If those were sold at 5 for 2 cents he would receive 4 cents, but he sold 2 for 1 cent, which brought 5 cents.

GOOD HEALTH.

The New Treatment for Consumption.

A novel method of treating patients suffering from phthisis is described in a recent number of the *Medical Record*. It was devised by a French physician, Dr. Bergeon, of Lyons, who has been applying it for two years to cases of chronic pulmonary and throat diseases. The results are said to be remarkable. In acute general phthisis there has been an arrest of the progress of the disease and a cure in a few months. In advanced consumption marked improvement of symptoms is rapidly secured, night-sweats ceasing and the cough becoming less harassing. Two hundred cases have been treated with singular success by Dr. Bergeon in Lyons, where the climate is unfavorable for consumptives. His method has been introduced in the hospitals there and in Paris, and the medical authorities are favorably impressed with it.

The treatment consists of daily injections by enema of medicated gases. Carbonic acid gas when introduced into the system by this method is found to be painless and harmless. Sulphureted hydrogen is mingled with it, the entire structure of the lungs is permeated by the medicated gas, and remarkable curative effects are observed. The carbonic acid gas is practically inert when taken up by the veins of the intestines, but the sulphurous gas reaches every particle of diseased tissue in the lungs and throat, which is eliminated from the system in the process of expiration. The volume of gas used is very large. At the outset a single litre is introduced, but the quantity is rapidly increased to 10 or 12 litres for each injection.

The results of this new system of treating consumption are so well vouched for that we commend the subject to the critical examination of medical circles in this country. Consumption is the chief scourge of the Atlantic seaboard. Any departure in therapeutics so radical as this French method deserves to be thoroughly investigated and adequately tested in American hospitals. Dr. Bergeon is not a smatterer in medicine, but a reputable physician of large practice and good standing. If his method be as effective and successful as he asserts, it merits general attention from the profession in the United States.—*New York Tribune.*

PHYSIC-TIPPLING AND MEDICINE-BIBBING.—At a recent State Sanitary Convention, held in Philadelphia, Dr. Frank Woodbury of that city read a paper with the above title, in which he referred to the rapid increase in the consumption of such drugs as the bromides, chloral, opium, etc. It is said that of chloral hydrate, one ton a day is consumed in England and America. He then spoke of the causes of this increase. A large portion of the death-rate among children was attributed to the abuse by the parents of medicines acting on the nerves. The injurious effects of patent medicines were considered. The author advocated as a remedy for this growing evil, "the instruction of the public to properly estimate drugs, and to regard every unknown medicinal agent as dangerous and endowed with capacity for harm. Let them escape the caustic criticism of Moliere upon those who pour medicine about which they know little into bodies about which they know less, in order to cure disease about which they know nothing at all."

THE LIFE-HABITS.—The life-habits of people who have come to be centenarians are described in an interesting article in the *British Medical Journal*. Activity, out-of-door exercises, and early rising with moderation in diet, seem to be the most important factors of longevity. Few things tend to promote health and vigor more than activity—activity without excitement—an activity which does not wear the body out. The candle ought to burn briskly, and, as a general rule, at both ends, regarding the head or brain as one and the limbs or locomotory agents as the other; but it should not burn too fast.

ARTIFICIAL WHETSTONES.—The *Guide Scientifique* describes the following method of making artificial whetstones: Gelatine of good quality is dissolved in its own weight of water, the operation being conducted in a dark room. To the solution 1½ per cent of bichromate of potash is added, which has previously been dissolved in a little water. A quantity of very fine emery, equal to nine times the weight of the gelatine, is intimately mixed with the gelatine solution. Pulverized flint may be substituted for emery. The mass is molded into any desired shape, and is then consolidated by heavy pressure. It is dried by exposure to strong sunlight for several hours.

SINGULAR PHENOMENON.—A curious story comes from Mackinaw, Ill. About six miles from the town is a spot of ground about 80 feet wide that will not freeze, and snow will not lie upon it. When the earth is disturbed it will flash like burning powder. The Mackinaw *Enterprise* declares that on the coldest days of winter one could walk on this particular spot and warm his feet in a short time. A peculiar gas comes up from the ground. An effort was made to confine some of it in a bottle, but in a very little while the bottle was burst into fragments.

DOMESTIC ECONOMY.

ORANGE SHORTCAKE.—Take a dozen good, small, juicy oranges, peel and put in a cold place. Make a shortcake out of a pint of prepared flour, a tablespoonful of lard and the same of butter rubbed well together and made into a dough with a cup of sour milk. Roll out about an inch thick into a sheet, put into a well-buttered pan and bake in a quick oven a light brown. Take out of the pan, and with a sharp knife divide in two as a biscuit. Spread the oranges thinly sliced between the cake, sprinkling well with sugar; put the rest on top and cover with sugar just before sending to the table. Eat with sauce made from the juice of three oranges and two lemons, boiled in a pint of water and seasoned with sugar and nutmeg.

ONION SOUP.—Take three large onions, slice them and then fry to a light brown in a large spoonful of butter. When brown, add half a teacupful of flour and stir constantly until red. Then stir in slowly one pint of boiling water, stirring steadily till it is all in. Boil and mash four large potatoes and stir into one quart of boiling milk, taking care that there are no lumps. Add this to the fried onions, with one teaspoonful of salt and half a teaspoonful of ground pepper. Let all boil for five minutes and then serve with toasted or fried bread.

GOOD DARK CAKE.—Pour one quart of boiling water over one pound of fat salt pork chopped very fine, add one pint of molasses, one pound of brown sugar, one tablespoonful of salt, cinnamon, allspice and cloves, two grated nutmegs, six well-beaten eggs, one tablespoonful of soda dissolved in a little warm water, flour enough to make a stiff batter, one pound each of currants and raisins well floured. Stir all together thoroughly. Put in two medium-sized sheet-iron pans well greased and bake in a slow oven three hours.

CREAM SPINACH.—Boil and chop the spinach in the usual way. Set it on the fire in the saucepan and stir until it is perfectly dry; add two spoonfuls of butter and stir for five or six minutes. For each two quarts of spinach add two tablespoonfuls of cream, and stir again for five minutes and then take it from the fire. Stir in a spoonful of butter and serve hot, garnishing with hard-boiled eggs and croutons. The eggs should be cut in quarters or even smaller pieces.

EGG SLAW.—Chop finely some tender white cabbage. Let it lie in water half an hour before using. Drain all the water from it. To about three cupfuls of cabbage add a tablespoonful of sugar, one teaspoonful of salt, one of French mustard or of mixed mustard. After mixing well together, add two well-beaten eggs in a cup of boiling vinegar, a little cayenne and a tablespoonful of butter. Pour this over the cabbage; toss well together and serve.

HOMINY CROQUETTES.—To one quart of boiling water add a teaspoonful of salt; stir in gradually a heaping half-pint of the finest hominy; boil three-quarters of an hour, and put it on the back of the range where it will remain hot an hour longer; then put in a large bowl and add the beaten yolks of two eggs, mix it thoroughly, and when cold shape into cones; dip the cones in beaten egg, roll in crumbs and fry in boiling fat.

FRUIT CAKE.—Wash and drain well one pound of currants, chop coarsely one pound of raisins, chop or slice one-half pound of citron. Beat five eggs and two cups of brown sugar together; then add to them one cup of butter, one cup of molasses, one-half cup of sour milk, one teaspoonful of spices to taste. Stir into this mixture six cups of flour, reserving one half cup to mix with the raisins to prevent their settling at the bottom. Add fruit last.

STEWED TRIPE.—Cut the boiled tripe into small pieces and add three or four small onions; pour over the tripe and onions a little warm water. Let it cook slowly until both are tender and the water nearly boiled away. Then add milk sufficient to make a good gravy, a tablespoonful of butter made smooth in an equal quantity of flour, salt and pepper to taste, and boil three minutes.

COLD LEMON PUDDING.—One-half box of gelatine soaked in four tablespoonfuls of water for ten minutes; add a pint of boiling water, juice of two lemons, one cup of sugar. Strain and set away to cool. When cold, stir in the whites of three well-beaten eggs. A thin boiled custard or thick cream may be used to pour over the pudding.

STEAMED INDIAN PUDDING.—One cup of sour cream, one cup of sour milk, one egg, two tablespoonfuls of sugar or molasses, one cup of flour, two cups of meal, one teaspoonful of soda, one teaspoonful of salt, ½ cup of raisins or dried fruit. Steam or boil two hours or more. Serve with sweetened cream.

RICE WAFFLES.—Boil half a pint of rice and let it get cold, mix with it ¼ pound of butter and a little salt, stir in 1½ pints of flour, beat five eggs separately, add yolks together with one quart of milk, lastly the well-beaten whites Beat well and bake at once in waffle irons.

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The Week.

The great event of the week is the Victorian Jubilee. It culminated on Tuesday, when, at 11:45 A. M., Victoria *Regina et Imperatrix*, in a black dress, was drawn by eight ponies with red morocco harness, and escorted by her sons and sons-in-law and grandsons and grandsons-in-law, all of them being dressed in their titular uniforms and followed by the royal ladies in gorgeous trappings—was drawn, we say, from the palace through the streets of London, while millions of her loyal subjects and admiring aliens thronged the wayside from the curbstone to the housetop — through the streets of London, we say, until Westminster Abbey was reached, and there, while 10,000 of the peers of the realm, the commons, the clergy, the fellows of royal societies, the diplomatic bodies, with their wives, sisters, cousins and aunts—until Westminster Abbey was reached, we say, and then while the State trumpeters executed fanfares and 10,000 throats sang the national anthem and the grand organ pealed forth the processional march of Handel, the half-century queen and somewhat less long empress passed up the aisle to the coronation chair, put on the royal robe, which had been left hanging over the back of it, and sat down while the sunshine, streaming through the stained glass windows, upon the silks and satins and velvets and jewels, and, we suppose, upon the tombs and other things, gave, as one telegrapher says, "a varied glow to the assemblage which was in itself as picturesque as the world has ever witnessed." The literary exercises in the abbey were appropriate and impressive. The Queen at the close received the warm congratulations of her next of kin, while the assemblage was convulsed with enthusiasm. Then Victoria returned to Buckingham palace again amid throngs of admiring people, taking the same route which she traversed after her coronation 50 years ago. Such in outline was the event. Its observance has stirred the loyal British heart the world around. The United States has frankly spoken our congratulations by letter and telegraph and by local celebration. The coronation of Victoria on June 21st was well timed to express the unity of interest of Britain and America, and in a way which we have not seen mentioned in history or diplomacy, and yet it is so impressive as almost to amount to an augury. It is this: the throats of brass and of mucous membrane which last week roared forth "Rule Britannia," will next week melt to the mellifluous measures of "Yankee Doodle." Hail Victoria! Hail Columbia! Let June 21st and July 4th henceforth entwine in inextricable confusion.

Close of the Volume.

This issue rounds up the half year and completes Volume XXXIII of the PACIFIC RURAL PRESS. The last six months have been of much importance in the growth of California, and have been characterized by action and accomplishment in many directions. Enterprises for the improvement of property have been many, and there has been progress made in lines of production and manufacture as well. These matters have been duly mirrored in our columns. Besides this, the weekly conference between our readers, concerning materials and methods involved in practical agriculture, has been unusually interesting and helpful, and has ministered to the better work of all. This we count our chief field. We aim to teach how various productive work can be best and most profitably done, and as our teaching comes chiefly from those who are doing the things, it becomes teaching by example—the most valuable kind of instruction. If one will scan the full index of the closing volume, which appears on the last page of this issue, an idea of the extent and variety of the topics we have treated can be had. The volume is about one-third larger than our old standard, and gives 580 pages for the price of a half-year's subscription, which, concerning the quality and special adaptiveness of the matter to Californian uses, is an example of cheap literature—in a good, but not in the ordinary sense of the term.

In closing the volume we return sincere thanks to the host of esteemed contributors who have aided us beyond calculation by their records of new facts and experiences, by their expression of true and ennobling sentiment, and by their apt and wholesome instruction. We acknowledge, also, the generous patronage bestowed upon our advertising pages, which coming from those engaged in honorable and creditable production, manufacture and trade, enables us to sustain our enterprise without recourse to the delusive and demoralizing advertising which is far too common in public journals. We are strong in our friends and desire to carry them all with us as we go forward into the labors of a new volume.

AN International Congress of Science and Industry is proposed for Brussels in 1888. Prizes to the value of $100,000 will be awarded for the best papers on various stated subjects, and many important applications of science will be discussed. The commercial section will consider export and import duties. This is expected to prove a welcome change from the round of international exhibitions.

The Victorian Jubilee.

The shot of the assassin that struck down President Garfield on the 2d of July, 1881, showed the vital solidarity of our people more than anything that has ever happened in our National history. Instantly and simultaneously all over the land, North, South, East, and West, the whole population felt a sympathetic thrill of pain, and municipal Governments and large bodies of citizens, irrespective of party, spontaneously came together to express their execration of the crime and offer their condolence to the sufferer and his family. For more than two months this solicitude continued unabated, more than 50,000,000 of people standing in tender, watchful anxiety around their President's sick-bed, as children around the bedside of a father struggling for existence, their hopes or fears rising or falling with the beat of one man's pulse.

While it is pleasant to remember such an exhibition of fraternal kinship, it is still more agreeable to see the beautiful feeling illustrated on a wider scale. We are not, as a rule, inclined to attach much importance to the messages of sympathy or congratulations which come from foreign potentates. They are little more than polite diplomatical acknowledgments of our country's greatness. They bear witness, not to the merits of our republican form of Government, but to our military power and commercial importance. They would hardly be sent to smaller Republics. But when, on the receipt of President Garfield's death, the American flag was heavily draped and raised at half-mast over the leading hotels and business houses of London, Paris, Berlin, Vienna and St. Petersburg, we cannot help feeling it meant something more than a mere perfunctory expression of sympathy. We especially recall the sweet and tender message of Queen Victoria: "With deep grief I and my children learn the sad news, not unexpected, of the sufferings of the President. His loss is a great misfortune. I have learned with deep sorrow that the President has passed away." Believing that this was more than a mere formal condolence, that it was the sad, heartfelt sympathy of one noble, bereaved wife to another, we are not inclined to let the Victorian Jubilee pass unnoticed.

It is pleasant to note that it comes at an hour of profound peace, that throughout the civilized world not a war-drum throbs. But what cyclones may be breeding in that calm sky, no one can guess. It is certain that the swords of three millions of men are not rusting in their scabbards, and the grim forts and war-ships dropping to decay. And yet the reign of Queen Victoria does not indicate that the prophetic era when swords shall be beaten into plowshares and spears into pruning-hooks is nearing the dawn. There has been the war in New Zealand, the Zulu war, the Sikh war, which led to the annexation of Punjab to the British Empire in India; two Afghan wars, three Burmese wars, resulting at last in the conquest of Upper Burmah; the great Crimean war, in which as many people perished as in the Civil war in this country, and at one time England was on the verge of a war with the United States. This is rather a sanguinary showing for one reign. No doubt the civilized world has made some progress during the last 50 years in the direction of the peaceful arts, but there is a deal of the savage in human nature yet, and the roseate dreams of the Quakers and the amiable members of the Peace Society give no promise of a speedy realization. Lecturing on "The Late War Panic in Europe," before a meeting of the Friends in London, John Bright said: "With regard to the question of peace, we are really as far off as our savage forefathers were, and are nearly as barbarous."

Victoria's reign has been marked by great gains in the direction of democratic government. They move slow in England, and it may take a long time to get down to our plane, where the whole Government—executive, legislative and judicial—is made or unmade by frequent popular elections, and all responsibility is merged in the theory that all power exists in the people. They may never quite reach it, but the substance is certainly within their grasp. Already the Radicals do not hesitate to say that the House of Lords has outlived its usefulness, if it ever had any, and should be abolished. With the downfall of that ancient and venerable body, the last prop of the throne would be gone. There is a sad decay of patriotism among the working masses, deep, ominous muttering, like the groan of distant thunder. The present jubilee outburst of enthusiasm is only a kindly feeling for the Queen, who has always been personally popular, but not an acceptance of the present order of things.

Holstein Notes.

Nothing succeeds like success is a trite remark, and it finds illustration in agricultural as in other matters. The advance of the Holstein interest is a case in point. It is exhibited in the growth in popularity of these cattle on this coast as well as elsewhere. Prices realized here are moderate compared with Eastern rates for favorite strains; but the fact that devotees of other breeds are found worshiping at the shrine of the black and the white is an unmistakable indication—not, perhaps, that they love their old favorites less, but that they love the Holsteins more.

We print upon another page a list of prices gained at the sale of Holsteins from Ontare ranch, which occurred at the Oakland Trotting park last Thursday. In addition to the bare figures, there are a few interesting notes which can be made on the sale which may be listed as one of the great events of the year in live-stock circles. Not over 25 or 30 people were present at the commencement of the sale. Later on the collection grew to 50 people, but many of them actuated more by curiosity than with any desire to buy. However, the sale may be considered a success, it laboring under the disadvantages of being an exceedingly large offering and but few buyers present.

A notable incident of the sale, and one that must encourage breeders of the black and white, was the apparent conversion of a number of prominent Jerseymen, who, since the sweeping victory gained by the Holsteins at the great Madison Square Dairy Show, held in New York six weeks ago, have at last come to the conclusion that the Holsteins were a butter cow as well as immense milkers.

Mr. Sneath, of the Jersey Farm, who was at first a thick and thin Jerseyman, but afterward cast about for other blood to mix with his Jersey, bought nearly a dozen head of Holsteins. Mr. Pierce, the representative Jerseyman of the coast, also bought several and paid nice round figures for them, and evidently did not think that he was polluting his ranch in buying these choice young heifers for it. Mr. Buehl, of Humboldt, broke loose entirely from his first love, the Jersey, and went over to the enemy bag and baggage, buying a baker's dozen. Steele Brothers, buttermen of Pescadero, and cheesemen in San Luis Obispo, were evidently well pleased with the breed, after three years' experience, and purchased quite heavily, being the largest purchasers at the sale. Mr. Hall, of Sacramento, must have been pleased with his last year's experience, for he dipped in heavily. The conversion of Steele Brothers is a great victory for the Holstein men, as they are practical and experienced men, and with them it is entirely a matter of bread and butter, or rather, cheese and butter, and their lead in buying and generous bids were boldly followed by other prominent dairymen.

The different strains of breeding, however, were but poorly understood by purchasers generally, the plums of the sale being picked up by Mr. Burke for his already large and very solid herd at Menlo Park; and though in several instances he paid the highest prices of the sale, he bought nothing but Aaggie strains, which he obtained at ridiculously low prices, breeding considered. As an instance, his agent in New York some two years ago offered the importers of Aaggie Kathleen, a celebrated cow, the sum of $800, which was refused. This cow was afterward purchased by the Ontare ranch and brought to this coast. Mr. Burke obtained her at this sale, without expense for transportation or risk, and landed at his very door, for the sum of $310.

The average, while very low, and not half the price the same animals would sell for under the hammer in the East, may be considered a satisfactory one, considering the few buyers and great number of head offered. Below may be found the summary: 43 cows, $7280, averaging $170; 15 bull calves, $1575, averaging $105; 2 yearling bulls, $550, averaging $275; 11 heifer calves, $1260, averaging $114; total average, 71 head, $10,614, averaging $150.

Life History of the Icerya.

Forms of the Female Cottony Cushion Scale.

[From advance proofs of report by PROF. C. V. RILEY, U. S. Entomologist.]

As promised last week, we begin on this page the publication of the life history of the *Icerya purchasi*, or "Cottony Cushion Scale." We take up first the forms of the female, and at another time will give those of the male. The public is much indebted to Prof. Riley for the careful study which he has made of this insect, both in the laboratory and in the field, and we are glad to give our readers the benefit of early information of the important facts which have been brought to light by his investigation. This pest has already gained too wide distribution in this State, but there are, of course, many large districts in which it has not yet appeared. We desire all our readers to study the insect in the various forms and be prepared to detect the pest if it should come in their way.

Last week we gave an engraving of a small cluster of the fully grown females as they are seen on an infested plant. The drawing showed the insects as they appear soon after death, as the drawing was made from a specimen some time removed from the tree.

The following is a quotation from Prof. Riley's report, with allusion to the accompanying figures:

The Egg (*Fig. 1*).—The egg is quite smooth, elongateovate in form, and is of a deep orange-yellow color. It measures about 0.7mm. in length.

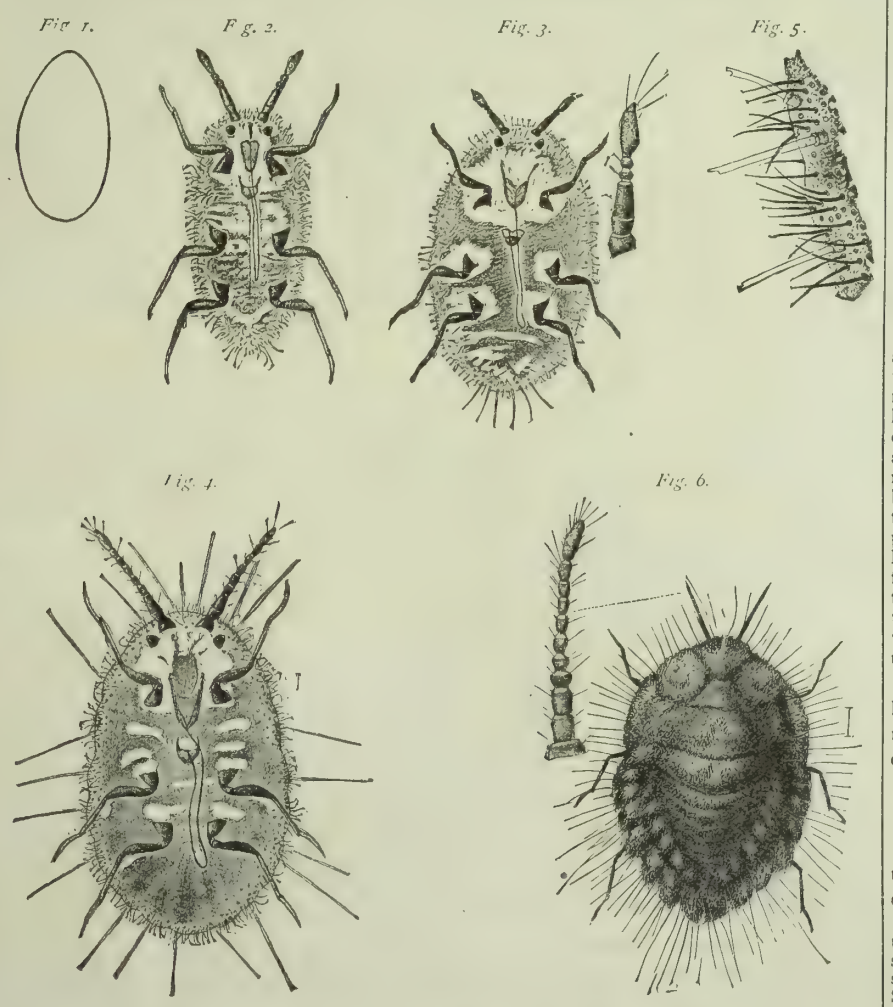
The average number of eggs laid by the female varies according to the vigor of the individual or the condition of the plant upon which she dwells; prolificacy diminishing in proportion as the plant is badly infested—a general law among Coccidæ. Over 800 eggs have been counted in a single egg-mass, by Mr. Coquillett, while Mr. Koebele has counted in a single egg-mass, which, by the way, was found upon nettle (*Urtica holosericea*), 940 eggs and 72 young larvæ, while 123 eggs yet remained in the dead body of the female, making a total of 1135 eggs from the single female.

The time required for the eggs to hatch after leaving the body of the female varies with the temperature. In the winter time the sacs are usually filled with eggs, while in the hottest part of the summer seldom more than one or two dozen will be found in each sac. Some collected by Mr. Coquillett on the 18th of March did not hatch until the 10th of May; but in mid-summer hatching is only a matter of a few days.

The Female Larva—First Stage (Fig. 2).—The newly-hatched female larva (and probably the male is identical with it at this stage of growth, since we have not been able to separate them into males and females) is red in color, inclining somewhat to brown. The body is ovoid in outline, being flattened beneath and convex above. The antennæ are long and six-jointed. Joint 1 is short and stout, and as broad as long; joints 2, 3, 4, and 5, subcylindrical and sub equal, much more slender than joint 1, and twice as long as broad; joint 6 is as long as 4 and 5 together, and forms a long club, at base equaling joint 5 in diameter, but broadening out to twice its width at tip. The basal portion of the club is sometimes distinctly separate from the rest, forming an additional joint. All joints have a few sparse hairs, and the club, in addition to several short ones, bears near its tip four very long ones, each of which is considerably longer than the whole antenna. The legs are thin and brown in color. The coxæ and femora are moderately large, while the tibiæ and tarsi are long and thin, the terminal joints of the latter bearing several long hairs. The upper digitules are represented by simple hairs, but the lower ones are present and are bent near the base. The eyes are prominent and are each mounted on a short tubercle. The mentum is broad and apparently two-jointed. The rostrum is broad at base and the rostral setæ are not very long. At the tip of the rounded abdomen are six small tubercles, three each side of tip, each of which carries a long stout hair, which is as long as the whole body. The body above shows six rows of secretory pores, four along the middle and one on each side. More or less regular rows of hairs alternate with these pores.

Female Larva—Second Stage.—According to Maskell and Comstock, there are but three stages of growth in the female after hatching, and these are readily distinguished by the number of antennal joints; the larva of the first stage having 6, that of the second 9, and the adult 11. Messrs. Coquillett and Koebele came to the same conclusions; and all have overlooked a form which we have found quite abundantly among the material we have studied, and which seems to constitute an intermediate stage between the so called first and second, and which is of course produced by an additional molt which we have personally observed in the field. Hence the so-called "second stage" of these authors becomes third, while the adult female is fourth instead of third, and there are three molts instead of two.

This new intermediate form (Fig. 3) differs from the female larva of the first stage in the following respects: It is much more rounded and of a stouter general appearance. The antennæ have the same number of joints, six, but their relative proportions are quite different. The antennæ, as a whole, are relatively much shorter. Joint 1 is short and stout, its length equaling its breadth; joint 2 equals joint 1 in length, but is not quite so broad; joint 3 is as broad as joint 2, but is twice as long; joints 4 and 5 are equal in length and width, each narrowing somewhat at base and tip, each considerably narrower than joint 3, and each of the same length as joint 2; joint 6 (club) is of an irregular shape—at base it is as narrow as joint 5, but it broadens until it is slightly wider than 2 or 3, and its tip is narrowed again; its shape is that of an irregular rhomboid with rounded angles and sides, the acutest angles at base and tip. The antennæ carry about the same number of hairs as in the first stage, but those homologous with the four very long hairs of the club in that stage are in this second stage but little longer than the other antennal hairs. The eyes do not appear on the margin of the body, and are only seen on a ventral view. The legs are proportionately much shorter, and the femora are stouter; the trochanters are broader distally, and consequently form a broader triangle in shape. The six tubercles at the anal end of the body are still present, but the hairs which they bear are much shorter. The secretory pores are no longer arranged in rows, but are scattered sparsely over the back and under the sides. The back is more hairy, and the short black hairs occur in irregular tufts.



FEMALE ICERYA, FROM EGG TO ADULT FORM.

Female Larva—Third Stage (*Fig. 4*).—That which has heretofore been considered the second stage, and which as we have just seen, is the third, may be described as follows:

The body is broadly oval in shape and reddish-brown in color, but is soon obscured more or less by the thick, curly, cotton-like execretion. The antennæ are nine-jointed instead of six, and are subcylindrical, tapering somewhat from base to tip. Joints 4, 5, 6, 7 and 8 are subequal in length, and each is about as long as broad; joints 2 and 3 are broader and considerably longer; joint 1 is like the corresponding joint in the previous stage; joint 9 (club) is a suboval joint, proportionately much smaller than in the previous stages; it does not exceed joint 8 in width, and it does not quite equal joints 7 and 8 together in length. The long hairs of the club are proportionately quite short. The insect as a whole is much more hairy than in either of the previous stages. The hairs are short and black, and show a marked tendency to grow together in tufts; even when their bases are well separated their tips turn toward each other or toward the common center of a group; they are quite thickly scattered over the thorax, but less so over the abdomen; all around the edge of the body they appear in close tufts, and the concentric subdorsal ring of tufts which is so prominent in the next stage is plainly seen in this. The secretory pores are scattered irregularly all over the back, and are more numerous than in the previous stage; they also occur under the lateral edges of the body. They are small and circular, and, seen directly from above, have a double outline, indicating a circular central orifice. Around the edge of the body is a row of much larger pores, brown in color, which protrude from the body, masked by the lateral tufts of hairs, each with a circular crown or lip at tip, from which proceeds a long, fragile, glassy tube. (Fig. 5.) The legs and feet are a little stouter than before, the tarsal digitules are shorter, and their enlarged tips quite indistinct. The six anal hairs are still present, though hardly noticeable as they protrude from the mass of shorter hairs.

The Adult Female—Fourth Stage (*Fig. 6*). Immediately after the molt by which the insect passes into this stage, it is free from the waxy excretion and presents a broad oval form, flattened below and quite strongly convex above, with two prominent raised surfaces on the second and third thoracic segments. Its color is still reddish brown, with several darker spots, especially upon the front half and along the sides of the posterior half of the body, and the antennæ and legs are black. The antennæ are now 11 jointed instead of 9; joint 1 is nearly twice as wide as long; joints 2 and 3 are subequal in length and thickness and are each somewhat longer than broad; joint 4 is a little more than half as long as 3 and is narrower; joints 5, 6, 7, 8, 9 and 10 increase gradually and slightly in length and decrease very slightly in width; joint 11 (club) is irregularly ovoid and is $1\frac{1}{2}$ times as long as 10; the special hairs are a little shorter than in the previous stage. The whole body is furnished with short, black hairs, more numerous than in the last stage, arranged in tufts, particularly around the edge, where they occur in a double parallel row, the inner row being practically subdorsal and accentuated by a slight ridge. Down the central portion of the dorsum of the abdomen the segments are indicated by the transverse rows of hair tufts. The secretory pores are exceedingly abundant, occurring in enormous numbers just under the lateral edges of the body, and scattered more sparsely over the back. The individual wax filaments which issue from these pores are very delicate and curly, and there is reason to suppose that two or three issue at one time from one pore, as they are frequently seen connected at base; the pore opening, however, seems to have a single simple opening. The inner row of tufts on the back is broken at its anal point by a depression, in which is situated a very large pore, from which the insect occasionally ejects a globule of a semi-liquid honey-dew. This depression is surrounded by an irregular ring of hairs, which are yellowish in color instead of black. The glassy filaments arising from the large tubular pores described in the last stage are now very long and radiate from the body in almost every direction. They break off easily, yet still often reach a length double that of the insect and her egg-sac together. What is probably the opening of the oviduct is situated on the under side of the seventh abdominal segment. It is surrounded by a transversely oval chitinous ring.

The Egg-Sac.—As the body of the female begins to swell from the eggs forming inside, the beginning of the egg-sac is made. The female lies flat on the bark, the edges of the body turned slightly upward, and the waxy material of which the sac is composed begins to issue from countless pores on the under side of the body, but more especially along the sides below. As the secretion advances the body is raised, the cephalic end being still attached, until, near the completion of the sac, the insect is apparently standing on its head, nearly at right angles to the surface to which it is attached. The egg-laying commences as soon as a thin layer of the secretion has formed on the under side of the abdomen, and it continues during the formation of the sac. There soon appears around the edge of the abdomen a narrow ring of white felt-like wax, which is divided into a number of flutings. These flutings grow in length, and the mass of eggs and wax under them increases, forcing the female upward until the sac is oompleted. When completed, it is from two to two and one-half times the length of the female's body. It is of a snow-white color, and the outside is covered with 15 of these longitudinal ridges or flutings, of subequal size, except that the middle one is smaller than the others. The upper part of the sac is firm in texture, but the lower is looser and thinner, and from the middle of the under side the young make their escape soon after hatching. The size of the sac and the length of time required in its growth depends, leaving the weather and the health of the food-plant out of consideration, upon the number of eggs which the female deposits. So long as oviposition continues, the secretion of wax accompanies it and the egg-mass grows. Concerning the rate of growth, Mr. Coquillett gives the following instance:

"On the 4th of May of the present season I marked a large number of females which were located upon the trunk of an orange tree that was not in a very healthy condition. These females had just begun to secrete the cottony matter, the latter at this date being in the form of short but broad tufts around the margin of the abdomen, those at the hind end of the latter being longest. By the 31st of May the cottony matter was equal in length to one-third of the female's body, and by the middle of July it about equaled in length the entire body of the female. As the egg-masses of some of the females upon the same tree were longer by one-half than the bodies of the females which produced them, it is very probable that at least another month must elapse before the egg-masses of the females which I observed would be completed. It is altogether likely, however, that these egg-masses would have been completed in a shorter time had the females been located upon a healthy tree. The egg-masses found upon healthy trees attain larger size than those found upon sickly trees, owing doubtless to the fact that the females living upon trees of the former kind are more vigorous than those upon unhealthy trees."

Of course the figures represent the insects highly magnified; the natural size is approximately represented by the short line beside each of the figures.

Encouraged and Encouraging.

One of our readers, having occasion to send us a letter about a change of postoffice, goes on to say:

"As soon as I get a little time to spare, I intend to write you, for the benefit of subscribers similarly situated, what I have done clearing brushland and setting out vines and fruit trees in the foothills of Southern Humboldt. I have been three years at the work. Commencing with poor health, I have cut and burned 20 acres; fenced 10 acres with a picket fence six feet high; set 2000 rooted grapevines and 300 fruit trees, besides a good garden and small fruit. Everything is growing very well, and in a year from this summer I will have fruit. I am preparing the other ten acres to set in trees and vines next fall.

"I will not tire you at present—only this I will say for your paper—I would not *think* of growing fruit without it as a companion. Oftentimes when I was tired and almost discouraged, I would take up the PRESS and read of some man who began just as I did, *persevered*, and in a few years began to reap the benefit of his industry. His experience would encourage me, and I would go to work again with renewed vigor."

We are always gratified by such testimony as the above—especially when it comes thus, unasked—a free, spontaneous tribute. It encourages *us*, too, to persevere in trying to make the PRESS yet more constant, trustworthy, and trusted friend and helper of the rural workers.

TO HER DEAD HEROES.—On the anniversary of Bunker Hill, New Haven dedicated a Soldiers' and Sailors' Monument with impressive ceremonies. Over 10,000 men marched in procession from the city to East Rock Park, where the monument was erected, and it is estimated that more than 100,000 strangers, beside representatives of the army and navy and invited guests, were in the city to witness the exercises.

WE are indebted to M. Weiss, book and job printer, at 525 Commercial street, S. F., for the use of the Greek type in the article on astronomy in our "Home Circle."

Southern California.

[NO. 6.—CONTINUED.]

[Editorial Correspondence.]

In continuing our notes upon the improvements in and about Lugonia, we would not omit a reference to the

Belleview Academy,

Which occupies the beautiful site next adjoining that of the Terrace Villa hotel. The building was designed and erected with special reference to its present occupation, and nothing has been omitted which could add to the convenience and comfort of the pupils. It is a private institution under the immediate charge of the Rev. J. G. Hale, as principal, assisted by his wife, daughter and son. The institution is designed as a preparatory school for college or university, and also to fit its pupils for the duties and responsibilities of an intelligent and active life. Especial attention is given to the care and comfort of such young ladies as may find it convenient to make the institution a temporary home during their course of instruction. Here they will be under the especial care of a competent Christian matron—an important matter, especially to the parents of delicate daughters who are seeking for those they love an educational institution and a home at the same time. Persons of both sexes are received as day scholars. Besides the ordinary educational advantages, the surroundings of the institution comprise all that is grand and beautiful in scenery, elevating in social character and standing, and beneficial in climatic and health-producing advantages. The school is far enough removed from the business center to be free from the diversion of time and attention to other matters, and yet within easy reach of the neighboring city of San Bernardino and the continental system of railroads, with which it is now connected by two daily stages, soon to be supplanted by direct railroad communication. Within a few minutes' walk there is a church, hotel, store, postoffice and telephone. But the saloon is an institution which has not yet found its way there.

Bank of East San Bernardino Valley.

So rapidly is the community growing in and about this locality that two banks have already come into existence to meet its wants. The "Union Bank," at Redlands, has already been alluded to in a former letter. The Bank of East San Bernardino valley is the name which has been given to the one at Lugonia. It has a capital of $50,000, and is already doing a thriving business. It is backed by men who have the confidence of the public and are well known as property-owners and sagacious business men. The officers are: F. P. Morrison, president; A. L. Park, vice-president; and John W. Wilson, cashier. Directors, A. L. Park, Frank Hinckley, Geo. H. Craft, F. P. Morrison, Geo. A. Cook.

A Fine Improvement.

What we presume will be the finest block of buildings in the vicinity was in process of erection when we were there, and is probably about finished by the present time. The structure is three stories in hight and covers 75x100 feet of ground room. The first floor is divided into five stores or sections. The corner one will be, or is already, occupied by the bank, and the postoffice will be transferred from its present quarters to another. The others will be occupied as stores. Upstairs there will be a large public hall 50x100 feet in size, and the balance will be fitted up for offices. This block is being put up by Messrs. Wilson & Berry, who also contemplate starting a newspaper there, and a part of the building will be used for editorial rooms, office, etc. These gentlemen are proprietors of the *Union* and *Sun* of San Diego. They are also large owners of real estate in the best part of the town of Lugonia, and are making every effort to advance the interests of the town generally, both by a liberal expenditure of money for improvements and by inducing others to visit this section and obtain personal knowledge of its resources and attractions.

A Domestic Water Supply.

Up to the present time, the domestic water supply of the various localities of this vicinity has been obtained from that employed for irrigation, but with the increase of population, and from the increasing evidence that a large and constantly growing community will soon be centered here, a company has recently been formed to supply the people with pure mountain water under pressure. Every arrangement has been made for a perfect city water system, devised upon a plan similar to that here employed for irrigation, and directly connected with the land. It may be remarked in this connection that the water system adapted to this locality is the most perfect and reliable of any irrigation scheme in the State, and one which will never be disturbed by the riparian and appropriation discussions which form such disturbing elements in nearly every other portion of the State.

The Crown of the Valley.

Lugonia, or by whatever other name the great city that is to grow up here may be called in the future, will and must stand unrivaled in everything that gives an interior city in California prominence and stability. Its features will be especially distinctive and most eminently unique. It will soon stand forth as the real and acknowledged "crown of the valley." Located at its head, golden and grand, as Pasadena is at its foot, silver-tipped, beautiful and lovely, it will in the near future develop into a city of gardens, beautiful with every form of semi-tropical loveliness, dotted with elegant villas, with monuments of culture and schools of various arts, colleges and churches. But its crowning importance will be its undoubted claim to be regarded as the great sanitarium of the Pacific Coast. Situated quite above all the surrounding valleys, above all the other cities and towns in this portion of the State, directly within the warm belt of the Sierra Madre, and yet easily approachable by rail or carriage, it will be without a peer. Located at first as a superior orange belt, above any destructive frost, below any possible snow, between huge mountains which form a perfect shelter from the heavy winds and sandstorms which so frequently visit the lower portions of the valley, the invalid or the seeker after a perfect sanitarium will here most assuredly find that for which he is seeking. The orange groves and the vineyards now planted here must soon largely give way and be cut up into smaller sections to accommodate the great tide of health-seekers who are now so rapidly pouring into this portion of the State from all parts of the Union. A 10-acre lot which was originally designed to accommodate but a single family must be made to domicile from 8 to 10 or more. The area properly suited to such purposes is comparatively limited in extent. The larger portion of this area will be filled, in all probability, within the next five or six years. The balance, now accounted as "outside lands," will not long remain unsought or unoccupied. This is no doubt

The Meaning of the Present Rush

For lands at this locality. This is the reason why land here has advanced to three or four times what it could have been bought for but a few months ago, and these facts furnish a good reason for the opinion that desirable locations will continue to improve in value for a long time to come. Land at from $500 to $1000 per acre can scarcely be made profitable for fruit-growing, *per se;* but it is not a high price for health resorts and suburban residences for sanitary purposes. Such residences must have a reasonable area of land about them, such as may be sufficient to secure pleasant outlooks and plenty of room for flowers, shrubbery and shade. The fruit for the family should also be raised upon the place, so that it can be picked and eaten direct from the tree and only when thoroughly ripened upon the tree. No one, even in health, can relish fruit obtained from the markets in this city who has been accustomed to eating fruit in the country properly ripened upon the parent stem; fruit ripened after being plucked is unfit for invalids. Nowhere else in the wide world can such privileges, together with first class climatic advantages, be so fully obtained as in the section of country of which we are writing. People in search of health, and those who desire to locate themselves where the climate and other surroundings are best calculated to preserve and promote health, are fast pouring into Southern California, and experience is beginning to show that no better spot, even in this specially favored portion of the State, can be found for such an influx than in the immediate locality of which we are writing. Knowing this, and fully believing in manifest destiny, the people there are setting their house in order to secure them.

Beautiful Crafton.

We have already made allusion to this locality as one of the three centers of attraction which go to make up the perfect whole of the future city of the East San Bernardino valley, which is soon to embrace them all in one. Perhaps it should have been the first instead of the last to be especially alluded to in these letters; for it was the first to attract the attention of the settlers in this portion of the valley after Old San Bernardino, which was located over a hundred years ago by the Jesuit fathers. It was for many years known as "Crafton Retreat." It was, and is indeed, "a sylvan scene," "a woody theater of stateliest view," with tree-embowered grounds, "where delicious paradise crowns with her inclosure green, as with a rural mound," the magnificent valley which here opens to view from the foot of the grand old mountain at whose foot it lies. It may be truly said of this favored spot—

"Out of this fertile ground He caused to grow
All trees of noblest kind for sight, smell or taste."

The locality took its name from its owner and first locator, Mr. Crafts, who passed away a few months since, just as he was arriving at the fruition of his 20 years' residence there. The outlook from Crafton, as it is now called, is simply magnificent. We quote the words of another, in whose company we recently rode through the sylvan scenery to which he alludes, and viewed with him the grand old mountains which he so beautifully and truthfully describes:

"Crafton is naturally and literally a grand and elevated stage from which may be viewed the most magnificent natural amphitheater to be found in the world. Turning to the north, east and south, the loftiest peaks of the continent-spanning Sierras loom up towering tens of thousands of feet into the 'upper deep.'

"Their snow-capped heads look down upon the silver and gold lined clouds resting along their upper slopes, and casting their waving and ever-changing shadows here and there upon their lower sides. Through rifts or openings in these clouds may sometimes be caught flashes of sunlight, so brightly shining upon the high snow-clad sides of these grand old mountains that one can hardly resist the impression that God has designedly opened the door to afford him a glimpse of the glories of the upper—heavenly Paradise. Thousands of people every year make the tour of Europe and climb the rugged steeps of the world-renowned Alps to look down upon the green-clad hills and dales of Switzerland, or the vine-covered and sunny plains of Lombardy and Italy; but there is nothing in the grandest views of the Alps equal in grandeur and sublimity to views that are obtainable every day in the year from Crafton, Mount San Bernardino, Old Baldy or Grayback. Nor does any valley scene from the Alps present so beautiful and charming an outlook of waving grainfields, light-green vineyards, and many-shaded orchards of oranges, limes, apples, peaches and apricots, as is spread out before one looking down the San Bernardino valley from Crafton. From the Alps rise many streams that meander through the valleys below, adding variety and beauty to the prospect. So, from Mount San Bernardino and Old Baldy rise streams that, like the water-courses of Lombardy and Italy, at once fructify the soil and give a charm of life and beauty to the valley. Among these may be mentioned the Santa Ana river and Mill creek.

"The latter is a feature of the valley. The dense line of forest trees that line this stream and its artificial outlet or *zanja* from Crafton through Redlands and Lugonia to Old San Bernardino and Colton attracts universal comment and admiration. There is nothing that can rival it in beauty in the State or on the coast. The fall, through its entire length, is about 120 feet to the mile, and the rapidity of its current is wonderful. Its bounding motion and rapidly changing course, the constant sound of its rushing waters, its forest-lined banks, its crystal transparency, and the many bright-colored and glistening rocks and pebbles over which it leaps, give it the charm and attractiveness of a New England stream meandering its course from the green mountains of Vermont or the granite hills of New Hampshire."

The Future of Crafton.

Continuing the language of the writer above quoted: "It may well be asked, what may not the future of Crafton realize? In some respects it is situated similarly to Pasadena. It has been said that Crafton is to San Bernardino and the East San Bernardino valley what Pasadena is to Los Angeles and the San Gabriel valley—the royal crown—the beautiful coronado.

"But if the natural advantages of greater and more commanding elevation; of drier, finer, more crispy and bracing atmosphere; of more delightful, equable, salubrious and congenial climate; of purer, clearer, cooler, more delicious and more sparkling water, in unlimited supply; or heavier, richer, more productive and fertile soil; of local landscape more diversified, with resplendent hilltops and sides; picturesque and fascinating grottoes and alluring umbrageous dales; meandering brooks; charming waterfalls and sparkling cascades; broad irriguous valleys, superbly luxuriant with golden orchard, purple vineyards and waving grainfields; of distant outlook, more diversified, more grand, magnificent and sublime—if these natural advantages are any recommendation in the location of elegant homes to people of refined taste and education, well or ill, or in the selection of a site for a unique and beautiful city of elegant and luxurious houses, then Crafton is much more to San Bernardino and East San Bernardino valley than Pasadena is to Los Angeles and the San Gabriel valley.

"It is, indeed, the royal crown—the grandly beautiful coronado of the most magnificent valley of Southern California, extending and embracing and including Pasadena herself, and no less the Queen City of the South—the matchless Los Angeles." W. B. E.

STRAWBERRY PORK.—The Santa Cruz *Courier* learned from Mr. H. B. Pilkington, who had just returned from Pescadero, that on the plateaus at the top of the cliffs, which border much of the coast from Point New Years to Pescadero, there grow quantities of a delicious wild strawberry, known as the "Beach strawberry," because the sturdy little plant pushes its way even down into the sand along the beach. The fruit is large in size and delicious in flavor, and this year the crop is so enormous that droves of hogs have been turned into these unique seaside pastures. Illinois boasts of her "corn-fed pork," but she will have to take a back seat now in favor of California's new dainty, "strawberry-fed pork."

CARRION AND CONTAGION.—The *Chronicle* makes a pertinent paragraph applying Ohio experience with the distribution of hog cholera from the dropping of choleraic pork from unburied carcasses by crows. This infested substance may fall in fields where healthy animals are pastured and infest them with the cholera germ. The preventive is, of course, to bury dead animals beyond reach of carrion eating animals which might bring it to the surface for carrion birds to fly away with. Attention is called to the numbers of carrion birds on this coast, and therefore the greater danger of distributing infection. It is desirable either to burn dead animals, or, if this be not easy, bury them deeply. This will make the air purer, as well as guard against evil work by the birds.

California Railroads.

A great deal of the material progress of California of late years is due to the creation and extension of the railroad systems of the State. For a time a few years back there was a cessation of railroad building, but for months past gangs of men are at work all over the coast engaged in railroad construction. In California the roads are being extended, and new tracts are feeling the influence of the presence of the locomotive. Rapid settlement of the country is the result, and on all sides are seen the evidences of progress and development. Of course, in carrying out this railroad work immense sums of money are expended for labor and material, which goes into business channels. It is a source of congratulation that this work of construction is again so active, since it augurs well not only for present confidence but future prosperity. There are still several parts of the State where little has been done in railroad building, and these parts are not nearly so prosperous, nor advancing so rapidly, as where the trains are running. The railroad men will not, however, stop with their present plans, but will doubtless look after the interests of other sections in due time.

The following statement of the railroad systems of California shows in brief the miles of road in operation up to the end of last year:

Southern Pacific Company.

PACIFIC SYSTEM AND NORTHERN DIVISION.

PACIFIC SYSTEM AND OTHER RAILROADS IN THE STATE OF CALIFORNIA.

	Miles.	Miles.
Central Pacific Railroad—		
San Francisco to Ogden	279.86	
Niles to San Jose	17.54	
Lathrop to Goshen	146.08	
Oakland local lines	4.84	
Alameda local lines	12.47	
Roseville to Delta	190.08	
Delta to Gibson	7.22	
Gibson to Hazel Creek	5.60	
Hazel Creek to Dunsmuir	10.90	
Dunsmuir to McCloud	13.10	
		687.69
California Pacific Railroad—		
Vallejo Junction to Vallejo	2 00	
Vallejo to Sacramento	60.39	
Davis to Knight's Landing	18.57	
Napa Junction to Calistoga	34.48	
		115.44
Northern Railway—		
West Oakland to Delaware Street	4 63	
West Oakland to New Martinez	31.03	
Port Costa to Suisun	17.33	
Woodland to Tehama	100 74	
		153.63
San Pablo and Tulare Railroad—		
New Martinez to Tracy	46.51	
		46.51
Stockton and Copperopolis Railroad—		
Stockton to Milton	30 00	
Peters to Oakdale	19.00	
		49.00
Amador Branch Railroad—		
Galt to Ione	27.20	
		27.20
Berkeley Branch Railroad—		
Shell Mound to Berryman	3.84	
		3.84
San Joaquin Valley and Yosemite Railroad—		
Berenda to Raymond	21.00	
		21 00
Los Angeles and San Diego Railroad—		
Florence to Santa Ana	27.60	
		27.60
Los Angeles and Independence Railroad—		
Los Angeles to Santa Monica	16 83	
		16.83
Southern Pacific Railroad of California—		
Huron to Colorado River at Yuma	529.12	
Los Angeles to San Pedro	24.24	
		553 36
Total Pacific system, not including Northern Division (in California)		1702.10

NORTHERN DIVISION.

Southern Pacific Railroad—		
San Francisco to Tres Pinos	100.49	
Curnadero to Soledad	60.40	
Soledad to Kings	20 30	
Kings to San Ardo	19.20	
San Ardo to San Miguel	24.40	
San Miguel to Paso Robles	9.30	
Paso Robles to Templeton	5 50	
		239.59
San Jose and Almaden Railroad—		
Hillsdale to Almaden	7.80	
		7.80
Monterey Railroad—		
Castroville Junction to Monterey	15.12	
		15.12
Pajaro and Santa Cruz Railroad—		
Pajaro to Santa Cruz	21.20	
Aptos to Monte Vista	5.00	
		26 20
Total Northern Division		288.71
Total Pacific system in California, including Northern Division		1990.81
Central Pacific Railroad (bet. S. F. and Ogden)		
In the State of Nevada	448 73	
In the Territory of Utah	154.64	
		603 37
Southern Pacific Railroad of Arizona—		
Yuma to Territorial line of New Mexico, in the Territory of Arizona	383 74	
		383 74
Southern Pacific Railroad of New Mexico—		
Territorial line of New Mexico to El Paso, in the Territory of New Mexico	171.06	
		171 06
Total Pacific system without the State of California		1158.17
Total Pacific system		3148.98
California Southern Railroad—		
National City to Barstow		210 42
Los Angeles and San Gabriel Valley Railroad—		
Los Angeles to Lamanda Park		11.80
Northern California Railroad—		
Marysville to Oroville		26.50
San Francisco and North Pacific Railroad—		
Donahue to Cloverdale	56.00	
Junction to San Rafael	20.50	
San Rafael to Tiburon	9 00	
Fulton to Guerneville	16 00	
		101.50
Sacramento and Placerville Railroad—		
Sacramento to Shingle Springs		47.71

Vaca Valley and Clear Lake Railroad—	
Elmira to Madison	29.00
Visalia Railroad—	
Visalia to Goshen	7.33
Total	434.26
NARROW GAUGE RAILROADS.	
Carson and Colorado Railroad—	
State Line to Keeler, Inyo County	108.00
Nevada County Narrow Gauge Railroad—	
Colfax to Nevada City	22.64
North Pacific Coast Railroad—	
Sausalito to Ingrams	86.25
Pacific Coast Railroad—	
Port Harford to Los Alamos	63.86
Sonoma Valley Railroad—	
Sonoma Landing to Glen Ellen	21.43
South Pacific Coast Railroad—	
Oakland Point to Santa Cruz	84 60
San Joaquin and Sierra Nevada Railroad—	
Brocks to Valley Spring	39.60
Total narrow gauge railroads in California	426.38
Total miles broad gauge railroad in California	2425 07

A Texan in California.

EDITORS PRESS:—Please allow me, through the columns of your valuable paper, to express my gratitude upon finding myself enjoying the luxury of breathing the soft, balmy, exhilarating and refreshing breeze being wafted inland from off the roaring, heaving, rolling, billowy bosom of the grand old Pacific ocean. Oh! what a grand sight it is to see the waves rolling, tumbling, leaping, chasing one another, each one determined to be the first to reach the shore.

One week ago I boarded the train at Ennis, Texas. I came via Dallas, where I took a train on the Texas Pacific for El Paso. There, we heard the cry: "Change cars with the Southern Pacific for all points in California." After a rest of three hours there we took our seats in the S. P. train for a pleasant ride through the green pastures and shady groves of New Mexico and Arizona. But O horror! what disappointment! Instead of beautiful landscapes, rich green valleys and grass-covered hills, what do we see? Rocks, gravel, sand, large hills and small ones, great broad valleys all covered with sand. The wind blew and the sand and dust flew. Our eyes, ears, mouth and nostrils were filled with sand till we really felt blue. Onward and upward, sand and dust everywhere on all sides and above and below. Still onward we go.

At last we reach the summit of the mountains. Here we are met by the cool breeze which comes stealing over the mountains from the west. We hear the cry, "California!" Here we descend the western slope and soon behold signs of civilization. Here we see the beautiful valleys, the waving grain, the great fields of golden barley, the cottages, the orchards, the gardens, and the beautiful flowers. At length we hear the cry, "Los Angeles! 30 minutes for supper!" and here we rest for a day after our long, dusty ride of 1600 miles, made in 63 hours.

Through the kindness of a real estate agent, I was permitted to see some of the beautiful farms, orchards and gardens. We rode among these to Florence, distant from the city about five miles. The lands here are all planted to orchards and gardens. Here we saw trees bearing the orange, lemon, banana, walnut, apricot, apple, peach, pear, plum and prune. Here are palaces with beautifully arranged grounds, ornamented with flowers of every shade and variety. The city of Los Angeles is so constructed that one cannot tell where it begins or where it ends. Bidding good-by to Los Angeles, we purchase tickets to the city of San Buena Ventura, in the famous Santa Clara valley of the south. This lovely valley is bordered on the southwest by the Pacific ocean a distance of 25 miles. It is watered chiefly by the Santa Clara river, which has its source far back among the mountains. The land in this valley is mostly level. That which lies nearest the foothills is rolling and sloping to the river. The soil here is of two or more kinds. On the north side of the river it is a dark, rich loam, very deep and inexhaustible. It is claimed that it will produce an abundant crop of whatever may be planted without any irrigation; but, of course, those crops only which pay the largest profits are raised. Fruits of almost every name and kind are grown here, and everything in the vegetable line seems at home here.

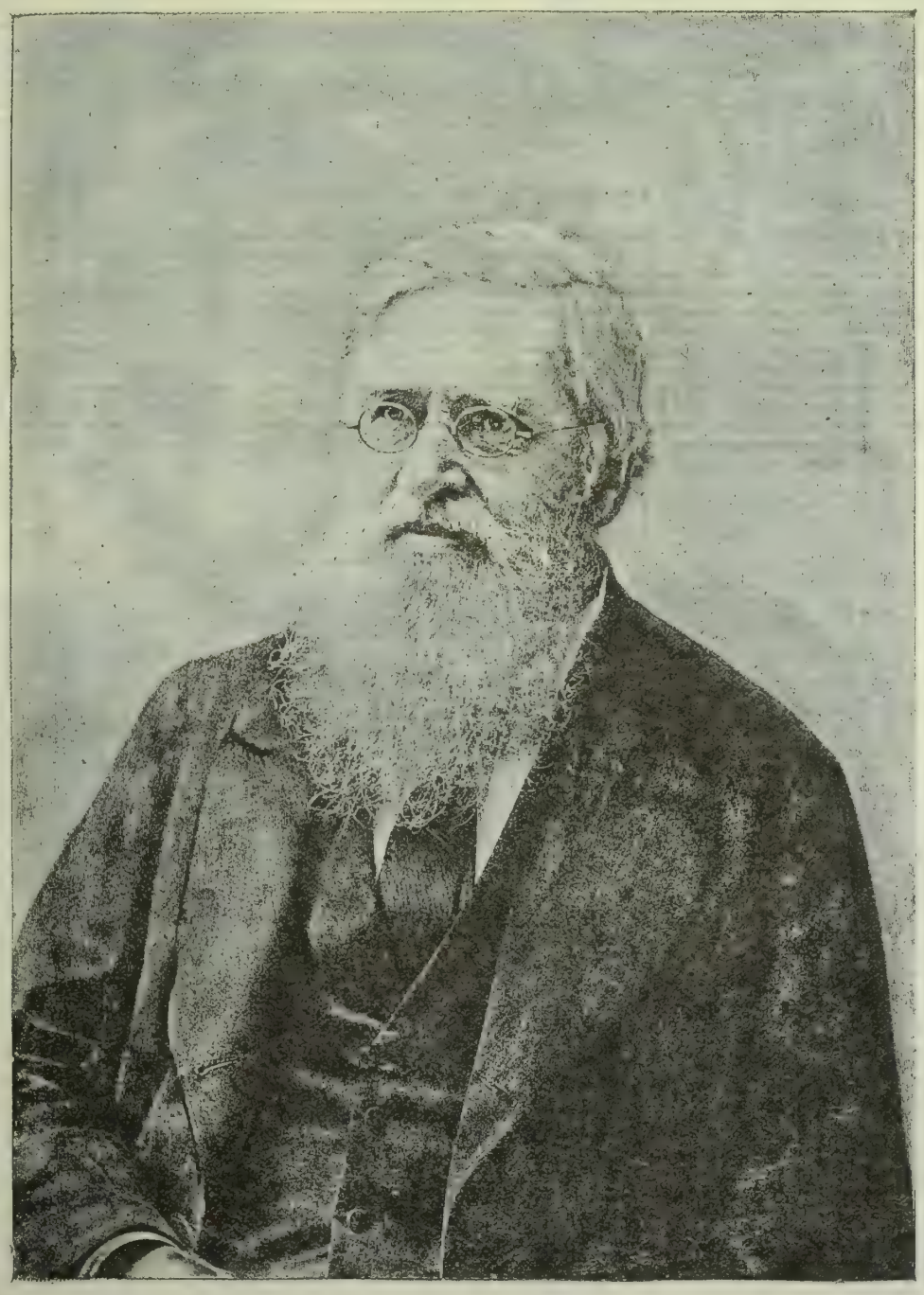
The soil on the south side of the Santa Clara river is underlaid by artesian water. It is light and sandy, and well adapted for grain and fruit, either with or without irrigation. During the summer season, at night-time, clouds of moisture are frequently blown in from the ocean, and these assist materially in producing the large growth of vegetables and grain. I have traveled on both sides of the river and visited many corn and bean fields, and I find the crops growing vigorously, which is astonishing to see without irrigation. I am informed that grapes are not raised extensively near the coast, though some varieties produce large and excellent fruit. Since coming here I have obtained reliable estimates which show a great advantage for farming in California over raising corn and cotton in Texas. The weather since I came here has been perfectly delightful, neither too warm nor too cold. I enjoy the most refreshing sleep, and my health is improving.

Real estate is on a "boom" since the railroad reached here. The people have waked up. Lands are selling at $7 per acre for grazing land up to $800 per acre for country seats richly improved. This country certainly beats any part of Texas, and I am glad I am here.

San Buena Ventura. F. M. LEMMON.

Wood Pulp Instead of Plaster of Paris.

An important discovery has just been made at the Sognedal pulp factory in Norway, after several years' experimenting, wood pulp being used for the manufacture of the kinds of building ornaments which are generally made in plaster of Paris. The pulp is first ground from wood, and then, by a machine, pressed into any kind of ornament, such as ceilings, friezes, basreliefs, rosettes, etc., which are quite as well finished as similar articles of plaster of Paris. Another feature is that the articles made from the pulp show painting or gilding to great advantage. Tests have also been made with regard to their strength, by dropping them from various hights or hurling them against stone walls, the results being highly satisfactory. Thus, for instance, a bar of this material one foot in length, one inch in thickness, and five inches in width, neither broke nor sustained any serious injury on being hurled with full force against a stone wall a couple of yards distant. Naturally, too, this material is far lighter than plaster of Paris, an important advantage, as no great harm would be caused to a person by ornaments made from it falling upon him, which is otherwise with those made from plaster of Paris. It should also be mentioned that pulp ceilings, friezes, etc., are, by the hardness and compactness of the material, impervious to wet, and that they may, if desired, be fastened by nails or screws. Finally, the inventors state that ornaments made from this material cost only half the price of similar ones made from plaster of Paris. This discovery will, it is believed, give great impetus to the pulp factories which are now quite unprofitable through the low prices of paper, and the utter failures which have attended the vast production of the latter, direct from wood pulp.



ALFRED RUSSELL WALLACE.

Alfred Russell Wallace.

One of the most distinguished scientific men of the age—Dr. Alfred Russell Wallace—has been for some weeks on a visit to San Francisco. While here he has delivered several lectures on Darwinism before those of our citizens interested in scientific research. We give on this page an engraving of Dr. Wallace, from a recent photograph by Taber.

Dr. Wallace was born at Usk, in Monmouth, Jan. 8, 1822, and was educated as a surveyor and architect, a calling he exercised until 1845, when he devoted himself exclusively to naturalistic studies. He spent four years on the Amazon and eight years on the Malay archipelago, making extensive zoological collections. It was while living in the East, without knowing of Darwin's cognate researches and speculations, that he wrote a theory of development by natural selection, though not using the latter term. He, therefore, really published the theory of evolution before Darwin. He has published many valuable scientific works. Among these are "Travels on the Amazon and Rio Negro," "Palm Trees of the Amazon," "The Malay Archipelago," "Contributions to the Theory of Natural Selection," "The Geographical Distribution of Animals" (which practically founded a new science), "Tropical Nature," etc. He has also written a work "On Miracles and Modern Spiritualism."

Dr. Wallace is a member of the Royal Society, and has long been distinguished in the scientific world. It was curious that both he and Darwin should have been pursuing the same line of investigation, which led to the same results, without either knowing of the other's work. The modern theory of evolution was therefore the result of the conclusions of two independent thinkers. As it bears Darwin's name, however, he is better known in connection with the subject than Dr. Wallace.

THE sheepmen of Butte, Tehama and Colusa counties have all driven their sheep to the mountains.

More Bait for Gudgeons.

A subscriber in Solano county incloses a circular he has received, and asks us to say what we think of it.

The document claims to be "important to those who desire to obtain the long use of money at four per cent." It is issued by an alleged journal in an Eastern city. Said "journal" boasts of its "character" and vast advertising business—though we find its circulation left blank in Ayer's *American Newspaper Annual* for 1886—and professes to divide its "surplus profits," not by lottery, (oh no! *that* would be illegal!) but by loaning out to selected patrons. The scheme ends with blank forms for the intended victim to fill out, *sign* and forward, with a few dollars.

On the reverse of the sheet, in a style that greenhorns might mistake for the work of the typewriter, is printed what purports to be a confidential letter. This epistle runs as follows, save that date and names are somewhat altered:

UTOPIA, All Fools' Day, 1887.

DEAR SIR:—Our prospectus herewith inclosed explains fully the *Bucolic Universe* Loan Investments of surplus profits among the subscribers whose patronage renders profits profitable.

This business policy is fair, safe, and honest.

We have found that while a comparatively small proportion of our subscribers care to negotiate for the Long use of Money, even at a Low Rate, *One good able-bodied Loan* in a community, by inspiring confidence, has more influence in bringing and holding subscription than all the books, chromos, and "gimcrack" premiums we could have bought with five times the amount loaned. So profoundly are we convinced of this, that we have decided to place at the earliest possible moment a good, Solid Loan in each county, where, as yet, we cannot point to a holder of a Loan in the immediate locality as a living proof of the practical workings of our system.

Within the next 90 days, with our present enormous advertising revenue as a criterion, we will place Loans aggregating many *Thousands of Dollars.*

We can, honestly, and without violating the terms of our Prospectus, place them where they will "*do the most good,*" for we make no hypocritical pretense to be running this paper except in our own interest.

So, without going into tiresome particulars, we will simply say: We intend to have the *Bucolic Universe* strongly represented in your community. Rest assured if we did not mean business in this communication, and if we did not know of you, you would not receive it.

Regard it as confidential and let us hear from you fully within 30 days—we cannot hold it open longer. In subscribing, fill blanks on reverse side carefully. Truly yours,

BUCOLIC UNIVERSE.

Dictated to Stenographer by *John Smith.*

The signature is made to look as if it were written, but it is printed like the rest—and the paper (like those for whom it is baited) is very appropriately green.

Our correspondent says he suspects it to be "an unmitigated swindle." We think he has told it all in those three words. We are tired of warning friends and patrons against putting faith in any concern that encourages hopes of getting something for nothing or wants autographs, and we hope none of them will be unwise enough to risk a dollar, much less their legal signature, with any such sharpers.

DRY ROT IN TIMBER.—In a recent number of a German technical paper, Herr Gottgetrue treats of the question of dry rot by the light of a summary of known facts illustrative of the subject. He is of opinion that the problem is still to be solved, and, in view of the occurrence of dry rot under some very peculiar conditions, suggests that the germs of the disease may exist in the living tree. In no other way can he explain the decay of wood from this cause, when it was apparently dry and sound and properly used. In Russia there are entire forests from which the timber is taken, experience having shown that it has always been attacked by dry rot. Sometimes a strong solution of common salt, applied while hot, has been found an efficient preservative of timber. The necessity of airing timber in its built-in position is, of course, universally recognized. Professor Farsky, of Tarbor, Bohemia, has found that salicylic acid is a preventive and cure for dry rot. At first the acid was used in a dry form, but latterly great success has been achieved with a solution of 5.28 ounces of salicylic acid in 0.22 gallon of alcohol, and afterward diluted. This solution has efficiently protected a floor 800 square feet in area from the spread of dry rot, and has removed it from the spots where it seemed to have established itself. The crude acid may be used for this purpose, and its action as an antiseptic is hightened by the admixture of a little carbolic acid. Professor Poleck finds that wood cut in winter and not soaked in water is very susceptible to dry rot, which does not appear when the timber is kept perfectly dry or thoroughly wet. A somewhat high temperature and dampness are almost, though not entirely, essential to the propagation of dry rot mycele.

New Store of G. G. Wickson & Co.

We give on this page an engraving of the new store of G. G. Wickson & Co., which is located at Nos. 3 and 5 Front street, close to and facing Market street, the main thoroughfare of this city. The building is new and spacious, with four floors and basement; it is commanding and handsome in its style, as can be seen from the engraving, and is excellently located in the very center of the large implement and wholesale hardware establishments, and at the head of Front street, so long familiar for its dairy commission-houses.

Mr. G. G. Wickson, the senior member of the firm, came to California a number of years ago from the great dairy and implement manufacturing State of New York, having all his life been familiar with the construction and operation of agricultural machinery. During his first years in California he was engaged with one of our leading implement-houses, both in the store and in the field, being especially charged with the handling of improved harvesting appliances. This opportunity for thorough acquaintance with the needs of our agriculturists and the provisions for supplying them soon showed him that though our implement houses exhibited great enterprise and devotion in ministering to the demand for improved agricultural machinery, they had singularly overlooked the great progress which was being made at the East in improved dairy machinery, and as there was no firm in the city which made dairy implements and supplies a distinctive line of effort, Mr. Wickson chose this as his main line, and has thus built up a large business without encroaching upon the business of other houses, and, in fact, has enjoyed the good-will and encouragement of those who have gained the greatest reputation in the general agricultural implement trade. At the same time he has secured the patronage and support of our dairy public, who have found it of decided advantage to have the latest Eastern and foreign inventions brought right before their eyes and to have such a satisfactory headquarters for dairy goods as Mr. Wickson has provided them with. In fact, Mr. Wickson assures us that he has found the dairy interest of the Pacific Coast more wide awake and eager for improvement than he anticipated when he started in his chosen line of trade.

One of Mr. Wickson's first efforts was the introduction of the centrifugal cream separator. Up to about three years ago nothing had succeeded in superseding the old and laborious method of cream-raising in shallow pans. The dairyman had to be content with such cream as he could obtain, and had no help for adverse weather-conditions, different results being obtained in different parts of the State and at different times of the year. In fact, though the shallow pan was the safest device where cold water was not at hand, still its results were largely determined by influences over which the dairyman had no control. The centrifugal machine was almost immediately recognized as giving the dairyman the whip hand over the various weather-conditions, and at the same time it liberated him from a vast amount of expensive work in hand-skimming, pan-washing, shelf and floor scrubbing and the like. The advantages of immediate separation of the cream before its natural flavor has a chance to be attacked, and the securing of fresh, warm, sweet skim milk for calf-feeding, are too well known to be enlarged upon. The other fact that more and better butter is obtained by the centrifugal method is vouched for by some of our most intelligent dairymen, as a deduction from experience covering long and continual use of the machine. A large number of the De Laval machines have been introduced, and are now in use in this State. In addition to the standard size, the firm has two new sizes—one with twice the separating capacity of the regular machine without any appreciable increase of the driving power; another is a smaller separator operated by hand-power, which will be found available in small dairies.

In addition to the centrifugal separators, the firm represents the Stoddard improved barrel churns, roller butter workers, both power and hand sizes, a full line of butter molds, printers and stamps in almost infinite variety, milk-testing appliances as well as improved pails, cans, strainers and the host of accessories of the butter dairy which their new catalogue fully describes, but which we have not space even to mention.

Much attention is also paid to the fitting out of cheese dairies, and there is a growing demand for improved vats, heaters, gang presses, curd-mills and the well-known Danish rennet and color preparations of the Hansen laboratory, for which the firm has the general agency. It would make the old-time cheese-maker laugh to see how science has stepped in to give him his rennet in imperishable shape and uniform strength, either in liquid or the still later tablet form, so that the old rennet jar is banished from the factory. Among cheesemakers' supplies are included seamless bandage, curd knives, press screws, hoops and followers, curd pails, strainers, syphons and all other appliances of the latest pattern. Beside the improved appliances for handling the milk from the dairy, the firm has found it necessary to furnish its customers with the best facilities possible for assisting in the production of the milk and the maintenance of the animal body, and of this department we can only find space to mention that it contains such well-known and popular machines as the Ross fodder and hay cutter, with its wonderful cutting capacity, the Scientific feed-mill just gaining such prominence on this coast, and St. Albans Dairy tread-powers, together with steam engines and boilers, all adapted especially for dairy use, calf-feeders and weaners, and stock-raising appliances of most improved patterns.

The old store of G. G. Wickson & Co., at 38 California street, soon became too small to show a large line of goods to advantage, and for this reason the large new building shown in the engraving was secured. It will give room for spacious show-rooms where dairy machinery can be set up and shown in about the same relative positions as it occupies when in use, and this will serve to give visitors a good idea how improved Eastern dairies are fitted out and conducted. The rooms are high and well lighted, and will serve admirably as a headquarters where dairymen visiting the city can meet to discuss matters relating to their business or for comparison of the merits of the different appliances which are being found useful in dairy work.

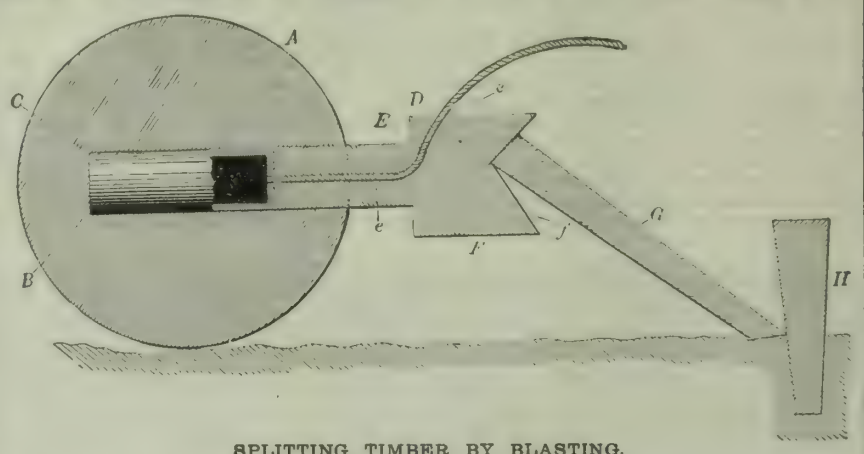


NEW STORE OF G. G. WICKSON & CO., 3 and 5 FRONT STREET.

To MAKE A FLANGE JOINT that won't leak nor burn out on steam pipes, mix two parts white lead to one part red lead to a stiff putty; spread on the flange evenly, and cut a liner of gauze wire—like mosquito-net wire—and lay on to the putty, of course cutting out the proper holes; then bring the flanges "fair," put in the bolts and turn the nuts on evenly. For a permanent joint this is A1.

Blasting Plug for Timber.

Powder for splitting logs is largely used on this coast, where our trees are of great size. Wm. T. McCall, of St. Clair, Alabama, has patented an improved means of splitting logs, which is especially applicable to long, thick logs. We give an engraving on this page which shows his plan. *A* designates the section of a tree-trunk of about 22 feet long and 2½ feet in diameter. *B* is a canal, preferably of circular section, made on a radial line of the log at about the central point of its length. The canal, *B*, penetrates to a proper distance on the opposite side of the axis of the log.



SPLITTING TIMBER BY BLASTING.

C is a cartridge filled with gunpowder or other proper explosive, and made to fit snugly in the canal, *B*. The cartridge is of suitable length to lie, when inserted to the bottom of the canal, with its center in the axial line of the log. *c* is a central opening through the outer end of the cartridge-casing. *D* is a block of metal, preferably cast iron, having the extension, *E*, and the head, *F*, as shown. The extension, *E*, is of proper shape to be inserted snugly in the canal, *B*, upon the cartridge, *C*, and is sufficiently long to be used with logs of different diameters.

E is a central longitudinal canal through the extension with its outer end bending upward or outward in the head, *F*, and ending in an orifice, *e*. The inner orifice of the canal lies upon the opening, *c*, of the cartridge. The head, *F*, of the block, *D*, is provided on its outer end with the re-entering shoulder, *f*. *G* is a metal bar, preferably of cast iron, which, in practice, has its upper end formed to fit within the shoulder, *f*, and has its lower end braced against the metal block or bar, *H*, which is driven into the ground.

In practice the block, *D*, weighs about 12 pounds and the bar, *G*, about 40 pounds. The bar, *G*, is about four feet long, and the block or bar, *H*, about two feet long, with one-half its length driven into the ground. The log lies with the canal, *B*, on one side, and the canal, *E*, is properly primed up to the orifice, *e*, so as to fire the cartridge therefrom; or a fuse, *I*, may be inserted into said orifice and fired in the usual manner. It is found in practice that by these means the log can be split straight or into longitudinal sections. A light wad, *i*, is placed between the ends of the extension, *E*, and the cartridge when gunpowder or any material that does not explode by concussion is used; but if a material that is liable to explode by concussion is used, a spiral spring is placed between the extension and the cartridge to prevent such explosion. The inventor thinks that better results are obtained by the use of gunpowder and similar slowly exploding materials than by quickly exploding materials, which would be apt to break the log into small fragments.

The Ballot, Not the Bomb.

Under the above heading, W. D. Vincent wrote for the *Labor Organizer* the following article, which has in it good points for all well-meaning voters:

I am not an admirer of standing armies. The practice of calling out the soldiers and militia to shoot down workingmen cannot be too strongly condemned. But who made the standing army and who calls it out? The lawmakers. Who made the law-makers? The workingmen. The laborers of this country have made their own beds and must lie in them until they have sense enough to make new ones. Year in and year out they have persisted in sending men to our legislative bodies to make laws to sustain themselves. All workingmen have not done this, but more than nine-tenths of them have. One man votes for himself, while the other nine vote for the monopolists. The man who has failed to exercise sufficient judgment to shoot the ballot intelligently had better not undertake to handle the Gatling gun. He is just as likely to shoot his friends as his enemies, and more likely to have the muzzle of the gun pointed toward himself than in any other direction.

There is not a reform that is asked for, and none that would be beneficial to the people, that cannot be brought about by the ballot. Otherwise our form of government is a failure. If Republican government is a failure, then what shall we substitute for it? If a majority of the people shall not rule, who shall? But it is not a failure. The trouble is with the people. They have not yet learned that "eternal vigilance is the price of liberty," or else they have forgotten it. Their troubles have been brought on themselves—the result of their own carelessness in voting. The men who advocate shooting now are the very men who have been voting to enslave themselves, and will probably do the same thing at the next election. If they had been voting right and trying to educate others to vote right, they would know better than to think they could get a very large number of men to shoot right, even if shooting was the most practical and proper thing to do.

There can be no question that we are suffering from a system of robbery. The few are getting the benefit of what the many produce. The idlers are living at the expense of the industrious. But whose fault is it? Our law-makers have done just what we sent them there to do. These robber laws and unjust symptoms have not all grown up in a day. The coil of greed and monopoly has been drawn tighter and tighter around us every day. Our Government has done this, but it could not have done it without our consent. We walk up to the polls at each election and give our consent by balloting to keep the same men and the same old political parties in power that have done all the mischief. There is not one abuse that we complain of that cannot be corrected in two years' time by intelligent action on the part of the laboring men. It can be done peaceably, quietly and lawfully by voting for a principle instead of a prejudice—by voting for ourselves instead of "our party."

Party prejudice is at the bottom of our troubles. The average voter thinks more of his party than he does of himself, his family or his native land. He is afraid to vote for what he knows to be right, for fear of throwing away his vote. It is costing him all he earns, over and above a scanty existence, for the blessed privilege of voting for his party. I shall always contend that men should have what a majority ask for and vote for, but it is mighty hard on the other fellows who don't want it.

There ought to be some means of plastering up the mouths of these fellows who are always wanting to bear arms against somebody—not that there is any danger in them, but because they are doing the labor cause a great deal of harm. They create a prejudice in the minds of well meaning but unthinking people that is hard to overcome. Let us hear no more about "Gatling guns," "Winchester rifles" and "dynamite," but rather let us arm ourselves with ballots and shoot them intelligently and in the right direction.

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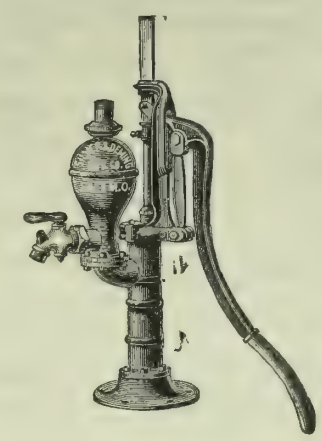
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List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 252 Market St., S. F.

FOR WEEK ENDING JUNE 14, 1887.

364,983.—WINDMILL—F. Altman, San Jose, Cal.
364,638.—NAVIGABLE VESSELS—W. Forward, Shingletown, Cal.
364,709.—CABLE GRIP—W. Dunham, Igo, Cal.
364,839.—PORTABLE STEAM BOILER—Mitchell & Fischer, Oakland, Cal.
364,727.—LOCK AND LATCH—E. Nyswonger, Hanford, Cal.
364,676.—CASK—E. Skakat, Los Angeles, Cal.
364,874.—CAR COUPLING—D. L. Vess, Spokane Falls, W. T.
364,693.—TIMBER ROLL—R. M. Webb, S. F.
364,877.—SAW SWAGE—Wheeler & Newhouse, Corvallis, Ogn.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Notices of Recent Patents.

Among the patents recently obtained through Dewey & Co.'s SCIENTIFIC PRESS U. S. and Foreign Patent Agency, the following are worthy of special mention:

WAGON-REACH.—A. Singer, Lovelock, Nev. No. 362,231. Dated May 3, 1887. This wagon-reach consists of the double-jointed or hinged reach, the object of which is to avoid strain on the reach and allow for the motions of the wagon in passing over uneven ground. The reach adjusts itself to all the movements of the wagon.

FRUIT-DRIER.—G. A. Fleming & C. F. Fleming, San Jose. No. 362,736. Dated May 10, 1887. This invention consists in various details of construction and arrangement relating to the heating of the air, its control and admission to the fruit chambers, the management and disposal of the fruit trays, the natural and artificial draft and other features.

CONDITION POWDER.—James W. Griffes, Hanford, Tulare Co. No. 364,408. Dated June 7, 1887. This is a new and useful composition of matter to be used in veterinary practice as a condition powder. It is intended for the treatment of all blood diseases, and is given in doses of one tablespoonful twice a day, mixed with the feed. The compound is composed entirely of vegetable substances.

REVERSIBLE PLOW.—Neil McLean, Watsonville. No. 364,362. Dated June 7, 1887. This is an improvement on a patent which was granted to the same inventor last year. The present invention has for its object such a construction of the framework and the shares that either one may be removed when desired to use the plow as a single plow only, and a short supplemental landside may be put on in the place of the one removed. It also relates to certain improvements in the device for holding and locking the beam.

COMBINED BALING PRESS AND FEEDER.—L. G. Thompson and A. H. Isham, S. F., assignors to Truman, Isham & Hooker. No. 363,095. Dated May 17, 1887. This improvement in baling presses consists in a novel means for lifting the hay or material to be baled in regular or irregular quantities into the press, and partially compressing it before delivering it to the press; an improved mechanism for pressing the same in successive charges, and a means for loosening and discharging the bale after it has been finished.

SULKY CULTIVATOR.—Ira B. Kilgore, S. F. No. 362,286. Dated May 3, 1887. The entire tooth-carrying frame is of simple construction and the main bars are all of gaspipe. The cultivator teeth are all in front of the driver's seat. The teeth are easily raised to the desired hight and kept at any distance required. By operating a lever, the wheels may at once be turned to an angle with the previous line of travel, thereby throwing the tooth-carrying frame around, and this movement will enable the machine not only to turn the corners, but also to turn temporarily out of the way of any projection or obstruction on the line of travel.

TRACTION ENGINE.—Jacob Price, San Leandro. No. 363,966. Dated May 31, 1887. This traction engine is especially for use on ordinary roadways or fields. It consists of an engine and boiler mounted on suitable bearings and traction wheels and an intermitten ly oscillating clutch mechanism of peculiar construction, by which the reciprocating motion of the engine is transmitted to the driving wheels, so as to produce a continuous rotary motion of the same without the intervention of gearing; and it also consists in a means for adjusting the transmitted stroke and the consequent power which is applied to the engine.

GLOSSY INK.—Any common writing ink can be made glossy by adding to it a little gum arabic or white sugar. If the latter is used care must be had not to use too much sugar, else the mixture will be sticky when dry, and if too much of either gum or sugar is used the ink will become too thick to flow well.

San Francisco Costumes.

San Francisco may feel justly proud. If not the originator of fashion, she has still a fashion of her own, and it is considered first-class. Many of the rich costumes worn at the Washington receptions and at the New York drawing-room were designed and made by our local houses, and found to surpass some of the celebrated Worth's or Laferier's dresses. San Francisco merchants import at the commencement of each season a few of the most stylish Parisian dresses. Then, combining taste, skill and the knowledge of what becomes our San Francisco ladies, they get up a style of their own, which, in most all cases, gains them the credit of having our California ladies the best dressed in the land. The house that has always taken high rank is the Lace House on Post street.

The Lace House has justly earned the name of having sent out the handsomest ball costume, the most elegant bridal dresses and the richest street suits, and was one of the very first to make the tailor-made suits. It would surprise some of the unsophisticated to look over the number of orders received not only from the city and State, but from Eastern visitors who had some dresses made at this establishment while visiting here. The Lace House is now selling dresses and mantles to some of the best houses in the trade, which are used as models to copy ladies' as well as misses' suits and cloaks.



STREET OR TRAVELING COSTUME.

The smaller cut on this page represents a costume just made by the Lace House for street or traveling. Other cuts will appear in these columns from time to time.

Ladies' Costume.

The adaptability of the costume to black lace is here shown, the choice being Kursheedt's Standard Chantilly lace in net and flouncing. The round, four-gored skirt is made of silk, with a knife plaiting of silk for its foot garniture, and its draperies are of the lace flouncing. A beautiful effect is achieved by the arrangement of the front drapery, which falls straight at the right-side edge and is lifted with a high, graceful curve at the left-side edge by a cluster of upturning plaits hidden under downward-turning plaits; plaits all across at the top, a group of plaits at the left side of the center caught to the skirt under a deep loop, and a tacking a little below the right hip producing the handsome folds and artistic draping characterizing the mode. The lower back drapery is also lifted with a graceful curve at the left side, but no higher than is the front drapery, while at the right side it falls undraped even with the front drapery, its top being gathered and sewed to the skirt a little below the belt. Where the skirt is exposed by the draperies at the left side it is covered with lace flouncing, and bows of ribbon are tacked over the plaits in the left edge of the front drapery, over the plaits in front of these plaits, and also over the draping below the right hip. Falling over the top of the lower back drapery in two fluffy wings is a short drapery that is plaited at the belt and shirred through the center, producing a bouffant effect over the bustle. The superb adjustment of the basque is made by curved darts and seams. The net is arranged over silk for the basque, the silk, however, being cut away from under the lace in V outline at the neck. A falling frill of lace edging to match is arranged in bertha fashion to follow the outline of the V, and is continued down the closing to terminate in points below the waist-line, a bow of ribbon being fastened at the point of the V. A high standing collar, with rounding front corners, finishes the neck. The outline of the basque is decidedly *chic*, forming a point at the end of the closing, a high arch at the sides and a square postilion outline at the back, where a stylish fullness is introduced by an underfolded double box plait at the end of the center seam. The coat sleeves are slightly shortened and are of the lace net, unlined.



LADIES' COSTUME.

White crepe folds are added to the neck and wrists, and a lace-pin secures the collar ends. The lace may be obtained in needful widths for the draperies and in a variety of pretty and novel patterns. While the mode is especially suited to the development of lace costumes, it is none the less adapted to all varieties of seasonable dress goods in tissue, silks and woolens, and in cottons that can be worn a season without laundering. Embroidered tissues, tulles or crepes make up well in this way, with ribbon for decoration. Under lace or tissue, velvet, surah, moire, satin or grosgrain may be attractively used. Passementerie ornaments or rosettes of picot-edged love ribbons may take the place of ribbon bows. The straw hat is trimmed with lace and feathers.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, *or beyond the time he intends to pay for it*, let him not fail to write us *direct* to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Catching Fowls.

EDITORS PRESS:—The recent event of one of our neighbors sending a stray bullet through a crowded store, while trying to capture a chicken out of the yard for dinner, by using his revolver, tempts me to send, for the benefit of your readers, my plan to catch chickens easily in daylight:

Make a lath or slat run roof-shaped, A, about three feet long and two feet high, with a door fitted at each end to slide down and close it, when desired, and a slide door on one side to reach through to catch them.

Let one end of this run against the hole in the chicken-house or fence where they pass through, so they will become used to it. When you want to catch one, drive them into the house and close the outer door of the run; then drive them out into the run and close the inner door, thus shutting them in the run, and you can reach in and capture what you wish.

This run also answers for a coop for general use, being especially convenient to reach into. More anon. CHICO.

Chico, Cal.

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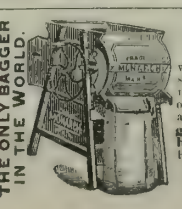
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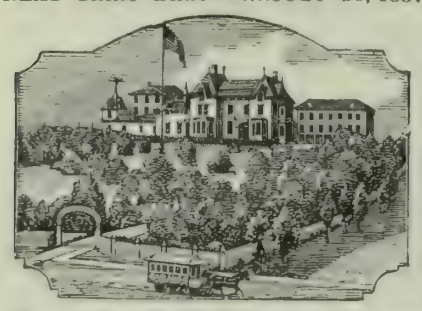
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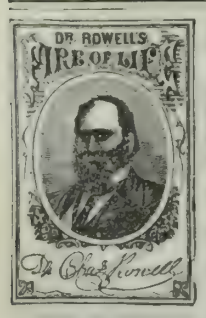
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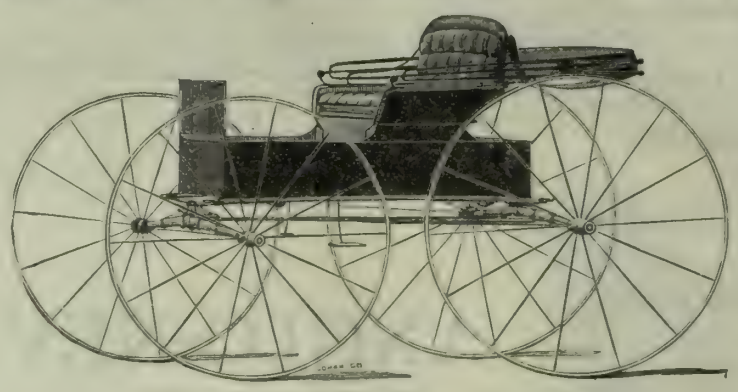
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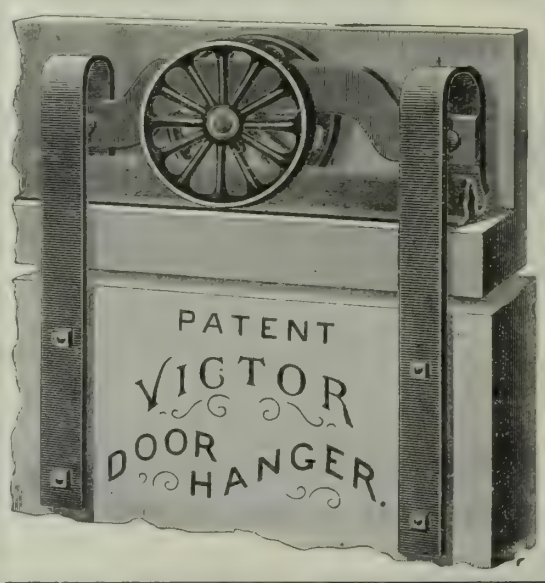
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THE VINEYARD.

Cut-Worms.

We hear that there is still some trouble with cut-worms in the vineyards. It is getting late in the season for these pests. They are worst early in the season when the foliage is first appearing on the vines. There are several species of caterpillars which are called cut-worms. They are all larvæ of night-flying moths. The worms can be recognized by Prof. Riley's description: "They are, as a rule, stout, naked worms of somber colors, curling into a roll when disturbed." "Naked," as applied to a worm, means smooth—not clothed with hairs. For many years the best way to kill cut-worms has been in question, and thousands of dollars have been spent by our vine-growers every spring for years, in hiring men to remove the loose dirt about the vine-stock and killing the worms which secrete themselves there during the daytime. This is an unnecessary expense. The worms can be effectually fought by taking cabbage or lettuce leaves or some other foliage which the worms enjoy, dipping the leaves in a mixture of a tablespoonful of Paris green in a bucket of water, keeping the mixture well stirred to prevent the poison from settling at the bottom. If more convenient, the leaves can be moistened and then sprinkled with a powder composed of one part of Paris green to 20 parts of flour. The poisoned leaves should be placed at the base of the vine, toward evening, and if the weather is cloudy, will remain in condition for two or three days, and must then be replaced with new leaves. Of course all fowls or other valuable vegetarians must be kept away from the vineyard while the leaves are exposed. This use of poison will obviate the danger which might come from applying it directly to the vines.

We have given this treatment before in the RURAL. It was suggested by Prof. Riley to the cabbage-growers of the South and has done them excellent service. It is, of course, useful in gardens and wherever cut-worms do injury.

Grape-Growers' Meeting.

The Wine-Growers' Association of California held a special meeting at the Grand hotel, June 21st, H. W. McIntyre presiding, and E. H. Rixford acting as secretary.

C. A. Wetmore submitted the following resolution, which was adopted:

Resolved, That any new movement looking toward the modification of Internal Revenue laws so as to permit the use of any spirits, excepting grape brandy, free of tax in fortifying wines, should be vigorously opposed by all friends of viticulture.

The following resolution was also submitted by Mr. Wetmore:

Resolved, That a committee of five be appointed to confer with the Board of Regents and to request that body to grant such assistance as may be necessary to enable the State Analyst to perform the duties of his office, and if such efforts fail, to devise ways and means through contributions from wine-growers, or by means of an agreed fee for all analyses required under the Pure-Wine Act.

After discussion, in which the action of the dealers requiring analyses from producers was vigorously denounced, Mr. Doyle offered an amendment striking out of the resolution the words "under the Pure-Wine Act," which was accepted by Mr. Wetmore.

The resolution as amended, being put to a vote, was unanimously adopted.

In accordance with the requirements of the resolution, the chair appointed the following as a committee: C. A. Wetmore and J. P. Smith, of Livermore; M. M. Estee, of Napa; H. A. Merriam, of Los Gatos; and H. M. Larue, of Sacramento.

Mr. Doyle submitted a motion to appoint a committee of three on legislation, to point out the ambiguities of the law and seek either their amendment or total repeal.

Mr. Wetmore objected to the measure on the ground that no legislation can be accomplished for 18 months. As the idea seemed to him a little premature, he introduced the following resolution:

Resolved, That a committee, to be composed of the president and secretary of the State Viticultural Association and the State Analyst, be appointed, to report at the January meeting of this body, in what respects the Pure-Wine Act is operative and beneficial, in what respects inoperative and prejudicial to the best interests of producers, and in what respects it should be amended.

The adoption of the resolution was vigorously opposed on the ground that all the association had now to do was to see that the law was properly enforced.

A motion that the resolution should be laid on the table was lost, and the adoption of the substitute resolution coming to a vote was carried by a small majority. An amendment to the resolution as adopted, appointing Mr. Doyle and M. M. Estee as members of that committee, was submitted by H. M. Larue, and after some discussion was adopted.

The contemplated introduction of a new process of condensing musts was explained by Prof. Hilgard. He stated that there was no hope of introducing the process this season, as unlooked-for difficulties have arisen. The apparatus used in manufacturing wine by this process was patented in Germany by Dr. F. Springmuehl, and arrangements have been made to place a plant of 80 tons of grape capacity in operation in this State. It is expected to produce wine of good quality and at a reduced cost.

The statement that the condensation of musts would relieve the trade of a surplus of wines was combated by Mr. Wetmore in a vigorous argument. His remarks were listened to with interest, and at their close Mr. Doyle submitted a resolution to appoint a committee of three to make public all information concerning the prospects of relieving the grape market during the present season of any process for condensing musts. This motion was unanimously carried, and J. T. Doyle, J. H. Wheeler and E. W. Hilgard were appointed such committee.

Senator L. J. Rose, of San Gabriel, addressed the association upon the Pure-Wine law. He recognized the importance of the relations between the dealers and the growers, and the necessity of harmonious action. One cannot thrive without the other, and both can advance their interests by strictly adhering to the law.

There was a discussion of the stamp provision in the new law, Mr. Estee sustaining and Mr. Wetmore denouncing it. The society finally adjourned to August 5th.

Phylloxera Investigation.

At the last meeting of the Viticultural Commission, Charles Krug, H. Crabbe and Chief Executive Officer Wheeler were appointed a committee to examine into the success of the methods employed in Napa valley for resisting phylloxera.

Mr. Wheeler returned from his mission of investigation yesterday, and stated to a reporter of the *Call* that the committee had examined the mercurial remedy discovered by J. A. Bauer, a local chemist, designed to resist the ravages of the phylloxera, but the committee was unable to report the success desired and anticipated regarding the remedy.

"We found," continued Mr. Wheeler, "considerable areas of vinifera vines totally abandoned to the pest. Remarkable progress has been made in the plantation of American stocks, particularly riparia. The vineyard of the late General Miller exhibits the perfect success of this method, his being an extensive one, now grafted and doing well on riparia roots. Judge Stanley's vineyard, near Suscol, is a remarkable example of success with resistant vines, over 100 acres being found grafted on riparia roots, showing great vigor and healthy growth, notwithstanding vineyards immediately adjacent have been given up to phylloxera. The wines grown from these vines leave no question as to the success of the method.

"The vineyard of Henry Hogan of Napa became an object of special interest to the committee in that the grafting of Mr. Hogan's resistant roots has been performed to a large extent above ground. Mr. Mini, the foreman, has, during the past five years, practiced this novel method of grafting and has been equally successful in this as with customary methods of grafting underground. Vines many years old and covering large arbors have been grafted on their branches with no more precaution or care than is bestowed on the customary graft beneath the soil. The success of this method of grafting, performed for the first time by him, has led to its application to large areas in the field working with all kinds of labor, and he has met with a success equal to any other method, contrary to the idea generally prevailing, that above ground grafting is unsuccessful. Many advantages will result from this new method, which will be fully detailed in Mr. Krug's report to the board. The Viticultural Commission will make further examination of this method. Reports from all inspectors will be called for, that a collation of all experiments of this manner of grafting may be made. If generally successful, it will work a revolution in the substitution of better varieties in our old vineyards.

"Many so called resistant stocks other than the riparia were found on Mr. Hogan's place, but none giving perfectly satisfactory results. Next to the riparia ranks the lenoir, which shows great powers of resistance, the wine from this grape, however, not thus far proving satisfactory."

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OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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A New Japanese Nursery.

Much attention is now being paid to the importation of Japanese plants, seeds and trees for trial in California. For a number of years there has been considerable traffic of this kind, but the interest seems to be widening. Mr. S. L. Goldman, the originator and former manager of the Japanese Tree-Importing Co., has just started a new company under the name of Oriental Importing Co., with its office at 120 Sutter St., room 77, and a depot at the store of the well-known seed merchants, Trumbull & Beebe, 419 to 421 Sansome St. The new company also controls Mr. Goldman's old nursery at Vacaville, and a new one in San Rafael with 3 hothouses, lattice-house and packing-room, which is just being fitted up, and we are told that it will be one of the neatest nurseries in the State. The work is to be done entirely by experienced Japanese gardeners. The officers of the company are: Mr. H. U. Jaudin of San Francisco, President; Mr. T. Hayame of Osaka, Japan, Secretary; Mr. S. L. Goldman Manager. The company intends to do a general nursery business, making the propagating of fruit trees a specialty. The Unshiu orange trees, which they offer, have been transplanted already since March, and their shape been corrected. Extreme care has been taken to suit the California market in selecting the stock. Every tree is washed before it leaves Japan, and when they arrive here they undergo the same process, and a certificate that the trees are free from any scale pest is given with each lot. The Unshiu is said to be the same as the Oonshiu. The Japanese Agricultural Association of Tokio (Governmental) calls it the Unshiu, and this name has also been adopted by the Washington horticulturists. We are told that the Satsuma and Canton hybrid orange trees will also form a prominent part of the company's importations.

FOR JAPAN.—Mr. H. E. Amoore, president of the Japanese Tree Importing Co., of this city, departed for Yokohama, Japan, on the 15th inst., to make further shipments of the seedless Oonshiu orange trees. They are said to have had great success with their former shipment of 30,000, having disposed of all but a few, which they have planted out in their nurseries near Santa Cruz.

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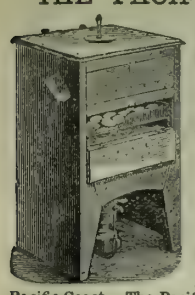
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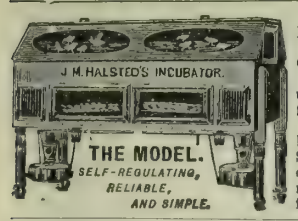
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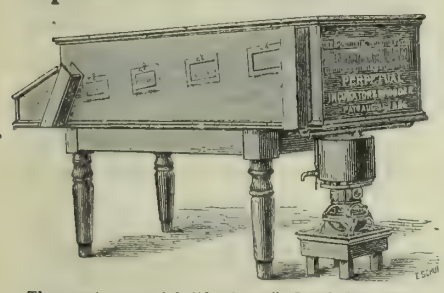
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STATE FAIR

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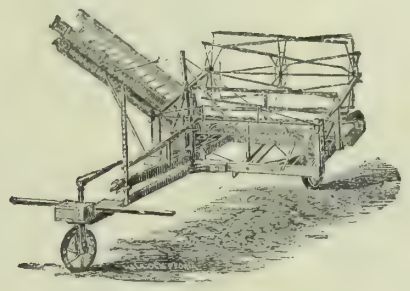
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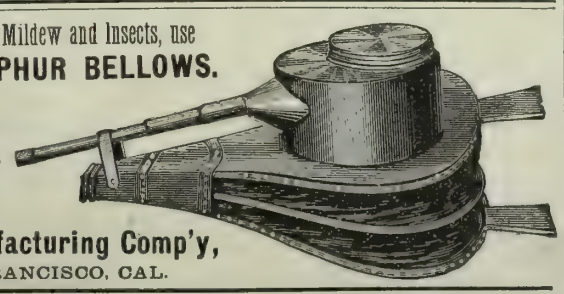
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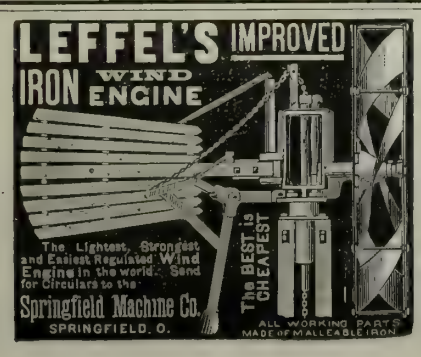
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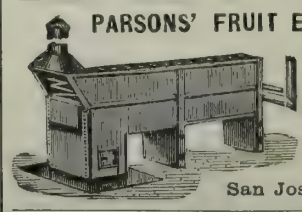
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S. F. Market Report

NOTE. Our quotations are for Wednesday, not Saturday, the date the paper bears.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 22, 1887.

The past week was characterized by hot weather for two days, followed by cooler winds. So far as can be ascertained no great damage was done to maturing grains. The weather for fruit purposes was of the best, both for gathering, drying and canning. The English wheat market was more or less unsettled throughout the week, owing to the break in values at the East. While Eastern wheat was weak and offered for less money, Californian was strongly held and not put on the market. The following is to-day's cable:

LONDON, June 22.—Cargoes off coast, very little demand; cargoes on passage and for shipment, inactive; Mark Lane, turn easier; Liverpool wheat, spot, inactive; Liverpool wheat, Cal., 7s 7d@7s 10d.

Foreign Review.

LONDON, June 20.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: Continued hot, brilliant weather is causing wheat to ear in the northern districts. The crop is immensely improved, giving greater promise than at the corresponding date of 1886. The outlook is vastly better than at the beginning of the month. Deliveries of new wheat are lessening rapidly. Values have fallen 1s. Sales of English wheat during the past week 39,738 quarters at 35s 1d against 43,178 quarters at 31s 4d during the corresponding period last year. The trade in foreign wheat is almost at a standstill. The breakup of the Chicago ring made little difference in the values, as the supplies at London continued small, but prices are somewhat in buyers' favor. There would doubtless be a bad break if a large quantity of American should be sent to be sold on commission. The demand for flour is restricted. Prices somewhat favor buyers. At Glasgow values declined 6d@1s. At to-day's market the trade in wheat was of a holiday character. There were no buyers and prices went nominally 1s lower. Flour is dull at a decline of 6d. Corn is slow; barley, oats, beans and peas are quiet. Linseed is cheaper.

Eastern Wheat Markets.

NEW YORK, June 19.—On Saturday the bears were fearful of a squeeze on the short side, and so were free buyers of wheat to close out contracts over Sunday. The result was higher prices for June and large dealing all around. Spot prices were ½@1½c higher and there were purchases of over 140,000 bushels for export and nearly 100,000 bushels to arrive C. J. F. June ended at 94¼c, July, 88c, the other months losing ⅜@½c net as follows: August, 86¾; September, 87¼; October, 89¾; November, 89¼; December, 90½c.

CHICAGO, June 20.—On the afternoon board the cereal sold down to a lower level than has yet been reached, again breaking the record of 25 years. There seemed to be no cause for the break beyond the generally accepted theory that the banks were calling their wheat loans, thus throwing a great load of cash property on a weak and reluctant market. The shorts were the principal buyers on the afternoon board. There was no special excitement. June sold from 69 to 68½c, closing at 68½c. July sold early at 71c, fell to 70c, closing at 70⅜c. August opened at 72⅝c, fell to 72¼@72⅜c, closing at 72½c. September fell from 74⅝c to 74¼c, closing at 74¼c. October sold at 75¾ and 76c. December opened at 79@79⅛c, fell to 78⅝c, closing at 78⅜@79c.

CHICAGO, June 21.—The suspension of the Fidelity Bank, which has demoralized speculation, has put life into the cash trade, and great activity in every channel of the cash wheat market is noted in the pit. Closing quotations were 69¾c for July, 72c for August, 73½c for September and 78½c for December.

NEW YORK, June 21.—The wheat market has been nervous and semi-panicky to-day. Shippers are taking advantage of the break to export purchases amounting to upward of 500,000 bushels.

CHICAGO, June 22—1 P. M.—Wheat about steady; cash, 69c; July, 69 15-16c; August, 72 5-16c. Corn steady; cash, 35⅜c; July, 36 3-16; August, 37⅞c. Oats steady; cash, 25c; July, 25⅜c.

NEW YORK, June 22.—The big "shorts" in Chicago telegraphed their N. Y. correspondents to sell all the June wheat they could. The Produce Exchange men, on obeying orders, carried the defeat of the clique into a rout, and June, that closed Monday afternoon at 95½c, sunk yesterday to 87c. The transactions for the session ran up to 18,000,000 bushels.

Crops at the East.

CHICAGO, June 19.—The following is the weekly crop summary published by the *Farmers' Review:* At this date of writing the report of the winter wheat crop, in all sections so far as it has reached maturity, shows no change in its condition, and none will take place unless hail, insects or rust should damage ripening grain. Eight of the winter wheat-growing States report an average condition of the crop at 89 per cent. The other reports on its condition in the different States are as follows: Seventy counties in Illinois report an average condition of 89 per cent. Insects and drought are little complained of. Eight counties in Indiana report the condition at 91 per cent. Kansas counties report no improvement in the crop. The damage by insects is very serious in Marshall, Smith, Franklin and Neosho counties. Kentucky reports an average condition of 96 per cent, with damage by insects in Hardin county. Michigan reports an average condition of 93 per cent. Missouri an average condition of 100 per cent. Ten counties in Ohio report a condition of 68 per cent. Seven counties in Wisconsin place the average at 93 per cent, with damage by chinch bugs in Portage county.

The condition of spring wheat in the different States is as follows: Wisconsin counties report an average condition of 63 per cent; 17 counties in Iowa place the average at 84 per cent; 11 Minnesota counties place the average of 87 per cent; 9 Nebraska counties place the average at 90 per cent, and six counties in Dakota report an average of 109 per cent.

The condition of the oat crop from drought and insects is everywhere below the average. The corn prospects are first-class. Hay and grass are short from drought. The fruit prospects are fair.

Eastern Wool Markets.

NEW YORK, June 19.—Wool—Among holders of domestic wools the feeling remains unsettled, and the market is slow to adjust itself regarding the new clip. Most buyers complain of an unsatisfactory goods market, and repeat the usual story of scant margins at the current cost of wool, but they find it necessary to invest to keep the mills running, and are picking up anything that looks like a bargain. Holders have met the call fairly well and stiffened somewhat on anything in the way of really desirable parcels. Sales include 25,000 lbs fall California at 15@16c; 13,000 lbs scoured California at 42@56c; 10,000 lbs Montana at 21c; 10,000 lbs Oregon at 21@22c.

The Philadelphia market as a whole has continued quiet. Manufacturers lack confidence in present prices, and pay them grudgingly and only for such wools as are imperatively required for present consumption. Among the sales were 1000 lbs of Territory bucks and 5000 lbs Territory one-quarter furry at 23½c; 7000 lbs Montana medium and 2500 lbs fine medium at 13½c.

The Boston market has ruled active, and on all sorts and conditions of fleece. The closing quotations are exceedingly firm. Among sales were 55,000 lbs fine Territory at 24c, 40,000 lbs fine medium Territory at 23@24c, 85,400 lbs medium Territory at 25@27c, 195,000 lbs spring California at 20@23c, 97,000 lbs fall California at 12@20c, 110,000 lbs Eastern Oregon at 18@22c.

NEW YORK, June 21.—Wool is quiet and firmly held. Domestic fleece, 30@37c; pulled, 14@34c; Texas, 9@24c.

California Products at Chicago.

CHICAGO, June 18.—There is not much to say about the dried fruit market any more than to repeat that prices are ruling about steady and that the market remains quiet. There is something doing all the time, however, and as stocks are very small holders cannot well allow fruit to go out of their hands at anything under previous prices. California dried fruits are quiet, owing to the very small supply. There is some inquiry for the several lines, and quotations range as follows: Pitted plums evaporated, 10@11c; sun-dried, 7@9c; apricots, evaporated, spot goods, 18@20c; future delivery, 16@18c; sun-dried, none here; prunes, 9@11c; raisins, London layers, 20-lb boxes, ₱ box, $1.50@1.75; loose Muscatel, $1.25@1.35; California layers, $1.25@1.35.

CHICAGO, June 21.—California dried fruits are dull and steady. California green fruits are in good supply. Choice fruit is selling well. More or less fruit comes in poor order; this has to be sold cheap. Apricots, 20-lb boxes, $1.50@1.75; apricots, half crates, $1.75@2; peaches, 20-lb boxes, $2.@2.25; cherries, Black Tartarian, 10-lb boxes, 1.50@1.75; cherries, Royal Ann, 10-lb boxes, $2@2.25; plums, Cherry, 10-lb boxes, $1@1.25; plums, Peach, 20-lb boxes, $3@3.25; plums, Royal, native, half crates, $3@3.25. Stock in soft order sells at less prices. Prices of new potatoes cover a wide range. The demand is light and the market dull. California potatoes are dull and lower, at $1.75@2 ₱ 100 lbs.

New York Hop Market.

NEW YORK, June 19.—The market remains very firm. There is nothing in the business passing or in the demand that is purely speculative. Dealers and brewers adhere to the most conservative methods. The choice Pacific are wanted to some extent. On 1886 Washington Territory hops 23c cash was realized, and choice 1885 Pacific brought 13c here. 1886, best, 23c; same, common to good, 17@21c; 1885, good to prime, 10@18c.

California Fruits in New York.

NEW YORK, June 19.—Green—California apricots, 25c a quart; California peaches, 75c@$1.50 a dozen.

Dried—The market is quiet and little effort is made to urge distribution. Malaga and California raisins are held about as before, with the trade most in the way of jobbing lots.

Canned—California pears are unchanged.

Pacific Coast Wool Sales.

CLOVERDALE, June 15.—At the wool sale to-day about 1200 bales were offered, and most of it was sold, prices ranging from 21¾ to 23½c ₱ lb. About $75,000 has been distributed among the wool-growers. The principal buyers were Costigan, Cohn & Co., Goldfish, Cohn & Co., and L. Breslauer & Co. of S. F., and E. H. Tryon of Sacramento.

TACOMA (W. T.), June 15.—The Pierce county wool clip of 1887 was sold at auction to-day. It was purchased by Frauenthal Brothers of Seattle, at 24⅜c ₱ lb. There were 25,000 lbs.

ALBANY (Or.), June 20.—A lot of 16,000 lbs of wool, pooled by farmers near Albany, was sold to-day to A. S. Cahen of San Francisco, for 25c ₱ lb.

Local Markets.

BAGS—The market is strong but quiet. The consumption is larger in this State than estimated. Standard size is quoted at 6¼@6⅝c, as to quantity and age.

BARLEY—The market has shown considerable activity in futures, with few fluctuations. The general impression is that there is strong pool buying. In the Market Information fuller information is given. To-day's sales on Call were as follows:

Morning Session: Buyer 1887—100 tons, $1.15; 100, $1.15¼; 100, $1.15⅜; 100, $1.15¼. Seller 1887, new crop—400 tons, $1.06⅜ ₱ ctl. Afternoon Session: Buyer 1887—200 tons, $1.15¼; 300, $1.15½; 100, $1.15⅝; 600, $1.15¾; 200, $1.16; 300, $1.16½; 100, $1.16¼. Seller 1887, new crop—100 tons, $1.06⅜ ₱ ctl.

FLOUR—The market is steady at full quotations.

WHEAT—With rapid declines and only slight reactions the New York and Chicago markets caused many to sell futures in our market, but without any visible effect, for large buyers took all put out. Many are inclined to the opinion that a decided advance in options is likely to take place before deliveries can be made, forcing many who have sold to fill or else put up more margin. Of course this is only conjectural and time can only prove it correct. Some new choice to extra choice wheat was sold to a miller at $1.87½. Shippers pay quotations. At to-day's Call the sales were as follows:

Morning Session: Seller 1887—600 tons, $1.83½; 1000, $1.83⅝. July—100 tons, $1.84¾ ₱ ctl. Afternoon Session: Buyer 1887—100 tons, $1.90. Seller 1887—400 tons, $1.83¾; 100, $1.83⅞; 200, $1.84; 100, $1.84⅜; 100, $1.84½; 200, $1.84¾; 100, $1.84⅞; 300, $1.85. July—100 tons, $1.84¾ ₱ ctl.

BUTTER—Hard, strictly choice, gilt-edged butter is in good demand, and fetches full prices, but soft butter and also off-color butter is slow and hard to place.

CHEESE—The market is barely steady under liberal supplies and an offish demand, owing to strong competition from the West.

EGGS—Strictly choice fresh-laid ranch eggs are in light supply and wanted at full figures, but off eggs and also Eastern eggs are in excessive supply, and move slow except at low prices.

[COMMUNICATED.]

Market Information.

Cereals.

The collapse of the Eastern wheat deal continues to attract attention, with active operators in this market on the alert for the latest telegraphic advices from Chicago. After steadying up, that market again broke under an authentic report that the Fidelity Bank of Cincinnati, which had been backing the bulls on 'Change, had been ordered to wind up its affairs. In speaking of the situation, the last issue of the New York *Shipping List* to hand says: "The wheat market is no longer under the control of the speculative clique that, regardless of the statistical position of supplies or the other influences that usually shape the course of trade, forced values to their recent hight. In the parlance of the Exchange the corner is 'busted,' and the drop yesterday has eliminated the wind with which values had become inflated. Meanwhile, however, the statistical position of supplies both here and abroad is favorable. The low prices that have prevailed during the past two years have discouraged production in foreign countries, and accordingly, with increasing consumption, the relations of supply and demand have become of a more healthful character. The tendency of speculation is always to go to an extreme, and the recent inflation of values has been of this character; but the liquidation now in progress is calculated to create a more healthy feeling, revive the export demand and quicken the movement of legitimate trade, which has been checked by the 'deal.'"

That the position of wheat is a strong one is not denied by any one. And that moneyed men believe in it is witnessed in the strength exhibited by this market in the face of a large break and lower prices at the East, and also lower values abroad in sympathy. From all that can be ascertained, the syndicate in this city have bought in options over 220,000 tons of wheat, and are still buying. It is claimed that they are not only buying options, but also all the new wheat they can at current quotations.

Harvesting is progressing favorably in the more advanced sections. The grain, both barley and wheat, is said to be fully up to the average.

Eastern exchanges report that the latest statistical compilation shows that the wheat crop of the United Kingdom in 1886, less seed, was 57,457,821 bushels, of which on June 4, 1887, about 45,769 848 bushels, or about 80 per cent, had been delivered. The annual requirements of the United Kingdom for food and manufactures, aside from flour, are about 212,000,000 bushels, and in the crop season to end on August 31, 1887, about 154,500,000 bushels in wheat, and flour equivalent, are required to be imported. Of this quantity about 105,000,000 bushels net were imported from September 1, 1886, to June 5, 1887, leaving additional imports from June 4 to August 31, 1887, of about 49,500,000 bushels. There were, however, on June 8, 1887, 13,200,000 bushels of wheat and flour on passage thence, against 19,600,000 bushels on June 9, 1886, and 22,800,000 bushels on June 10, 1885. Of the 13,200,000 bushels on passage June 8, 1887, about 10,000,000 bushels are on long sail voyage from distant points, 3½ to 4½ months off, so that only about 3,000,000 bushels of this 13,200,000 is likely to become available for consumption in the United Kingdom before September 1, 1887. This 3,000,000 bushels deducted from 49 500,000 bushels, leaves about 46,500,000 bushels to be purchased in and shipped from all foreign countries to arrive prior to August 31, 1887, provided stocks are to be kept normal. The stocks of wheat and wheat flour at importing ports of the United Kingdom, taken in each year of the six years ended in 1886, on June 30 and December 31, averaged something less than 16,000,000 bushels, which may be considered as about the normal stock. The stock June 1, 1887, is believed to be under normal. The smallest stock in the 12 records referred to was about 9,000,000 bushels. By drawing on stocks to the extent of 7,000,000 bushels, leaving them September 1, 1887, only 9,000,000 bushels, the quantity of wheat to be purchased in and shipped from foreign countries from June 4 to August 31, 1887, might be reduced to 39,500,000 bushels. Some part of this quantity may be supplied by Russia, some by Austro-Hungary, as flour; and a portion may come from India, via the Suez canal; but much the larger share must be obtained from Atlantic ports of North America.

The average wheat crop of France from 1876 to 1885 inclusive has been 301,096,357 bushels; average imports, 51,096,846 bushels; average exports, 10,249,113 bushels; average net imports, 40,856,733 bushels; an average supply of 341,943,100 bushels. The wheat crop of France in 1886 was under average, and much of it of inferior quality and light weight. The net imports of wheat into France from August 1, 1886, to April 30, 1887, have been 28,275,592 bushels, against 13,169,072 bushels in the corresponding period in 1885-86. The quantity of wheat on passage from France May 26, 1887, was 1,800,000 bushels, against 520,000 bushels at the corresponding date in 1886. The wants of France for the last quarter of her crop season, May, June, and July, according to Paris advices, will be large, as her reserves are small and most of her home crop has been delivered. Her wheat crop is three weeks late and stocks in importing ports are small.

It is claimed that large quantities of new barley have been taken for account of Eastern buyers. The grade is said to be good to choice brewing. There has been free selling on Call the past week, chiefly by interior dealers and farmers. The buying on Call was by consumers and also speculators who believe in a higher market later on, owing to the short crop and large increased demand.

Oats have been shading off under fair receipts, light demand and continued favorable crop reports from Oregon and Puget Sound. It is claimed by well-informed parties that the crop in Oregon and on the Sound will be all of 50 per cent more than last year's.

Corn has eased off slowly, owing to a lower, declining market at the East, together with free receipts here. Stocks with us are not excessive, but the demand is only fair.

Rye is very scarce, but then the demand is about over, owing to the probabilities that new will be on the market soon.

Feedstuff.

Both bran and middlings are weak and lower under freer receipts and a restricted demand, owing to the high prices that ruled about two weeks since. It is now thought that the supply will be larger and consequently prices continue down.

Feedmeal and ground barley have a weaker tone, but so far as can be ascertained the price for best grades is not shaded.

Oilcake meal is in good request, considering the high prices asked.

Fruits.

Senator Buck, of Vacaville, sent the first grapes of the season to market on Monday, June 20th. They fetched 25c per lb.

Apricots continue in very heavy supply, notwithstanding free purchases by driers and canners. A. Lusk & Co. received from Briggs' ranch the first large consignment of this season. The quality of dried apricots is unsurpassed, and they sell readily to jobbers at 11½@13c per lb. It is claimed that several shipments of this season's dried apricots have been made to the East.

Peaches continue in liberal supply, but as yet the quality is poor and do not sell readily. Many coming in are too green, but still they sell on distant orders. It is claimed that the better varieties of fruits will begin to put in an appearance soon, owing to the fine maturing weather.

Strawberries are in moderate supply, but as the receipts of other fruits increase, the consumption decreases. Canners only buy overstocks.

Blackberries and raspberries shade off under freer receipts. Many of the former coming in are very poor.

Apples and pears show very little improvement, and consequently move slow.

Raisins are well cleaned up, but then the demand is light.

Dried fruits of last year's curing are about all gone, causing quotations to be more or less nominal. The East reports Europe cleaning up the markets of all grades of apples.

Live-Stock.

Beef cattle, mutton sheep, hogs and large veal are lower under a fair supply and a lessened consumption. The market for beeves closed with a steadier tone, but sheep and hogs were weak. In work horses the demand is slack, owing to both farmers and railroad contractors being well supplied. The market for other horses is barely steady.

The following are the wholesale rates of slaughterers to butchers:

BEEF — Extra, 7½c; first grade, grass fed, 6¾@7¼c per lb.; second grade, 6@6½c; third grade, 4½@5¼c.

MUTTON—Ewes, 5½@6c; wethers, 6½@7c.

LAMB—Spring, 9@10c.

VEAL—Large, 6@7c; small, 6@8c.

PORK—Live hogs, 4½@4¾c for heavy and medium; hard dressed, 6½@7½c per lb; light, 4¾c; dressed, 6½@7c; soft hogs, live, 3½@4c. On foot, one-third less for grain or stall fed, and one-half less for stock running out.

Vegetables.

Asparagus is growing scarce, causing a stronger market.

String beans are in liberal supply, but peas come in sparingly.

Green corn is more plentiful, with still heavier receipts, and lower prices looked for after next week.

All kinds of seasonable vegetables are in better supply, with prices gradually favoring buyers. It is thought that canners will start up on tomatoes in about a fortnight.

Free shipments of potatoes continue to be made eastward, notwithstanding which prices do not improve, although at the close a steadier tone is reported, which may be followed by a slight advance.

Onions are in free supply, with prices favoring buyers. There is a better inquiry at the close for hard good keepers to fill distant orders.

Miscellaneous.

The tonnage movement compares with last year at this date as follows:

	1887.	1886.
On the way	274,273	286,097
In port, disengaged	99,797	35,084
In port, engaged	25,255	22,551
Totals	399,425	343,733

The above gives a carrying capacity as follows: 1887, 636,643 short tons; 1886, 320,526 short tons; increase over last year, 116,117.

A very large number of wheat vessels have gone into lumber commission, which are available for wheat when required. Several wheat charters were drawn the past week, generally at a shading on the rates of preceding week.

All kinds of fowls are weak and lower, under a light demand and fair receipts.

Free wools, medium to fine, are wanted at full prices, with some extra choice sold at a slight advance. Off grades of wool are slow and appear to be accumulating.

There is a better inquiry for hops for future delivery. A slight advance on last week's bids is reported to have been made, but growers are indifferent and ask more money.

There has been a freer movement in beans, chiefly for shipping on orders to east of the Rocky mountains.

San Francisco, June 22, 1887.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 22, 1887

BEANS AND PEAS.			
Bayo, ctl	2 00	@	2 75
Butter	1 75	@	2 25
Pea	1 80	@	2 15
Red	1 40	@	1 65
Pink	1 25	@	1 60
Large White	1 90	@	2 15
Small White	1 75	@	2 25
Lima	1 75	@	2 50
Fld Peas, blk eye	1 00	@	1 05
do green	1 00	@	1 12½
do Niles	1 25	@	—
BROOM CORN.			
Southern per ton	50	@	75
Northern per ton	50	@	75
CHICORY			
California	5½	@	6½
German	6½	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. fresh roll, lb	16	@	20
do Fancy br'nds	21	@	22
Pickle roll	20	@	24
Firkin, new	16	@	20
Eastern	—	@	—
CHEESE			
Cheese, Cal., lb	9	@	10½
Eastern style	11	@	12
EGGS.			
Cal., ranch, doz	25	@	27½
do, store	20	@	22½
Ducks	—	@	—
Oregon	—	@	—
Eastern	18	@	—
FEED.			
Bran, ton	22 00	@	23 00
Cornmeal	28 00	@	—
Gr'd Barley ton	25 00	@	26 00
Hay	9 00	@	14 50
Middlings	25 00	@	26 00
Oil Cake Meal	26 50	@	28 50
Straw, bale	40	@	60
FLOUR.			
Extra, City Mills	4 95	@	5 70
do Co'ntry Mills	4 45	@	5 45
Superfine	3 70	@	4 45
GRAIN, ETC.			
Barley, feed, ctl	1 10	@	1 17½
do Brewing	1 15	@	1 25
Chevalier	1 45	@	1 60
do Coast	—	@	—
Buckwheat	1 00	@	1 20
Corn, White	1 15	@	1 25
Yellow	1 10	@	1 20
Small Round	1 20	@	1 30
Nebraska	1 07½	@	1 15
Oats, milling	1 85	@	1 90
Choice feed	1 70	@	1 75
do good	1 60	@	1 70
do fair	1 45	@	1 55
do black	—	@	—
do Oregon	—	@	—
Rye	1 25	@	1 50
Wheat milling.			
Gilt edged	1 87½	@	1 92½
do Choice	1 82½	@	1 87½
do fair to good	1 77½	@	1 80
Shipping choice	1 85	@	—
do good	1 80	@	—
do fair	1 75	@	—
HIDES.			
Dry	14	@	16
Wet salted	7½	@	8½
HONEY, ETC.			
Beeswax, lb	20	@	22
Honey in comb	9	@	12
Honey in comb, fancy	13	@	14½
Extracted, light	4½	@	5
do dark	3½	@	4½
HOPS.			
Oregon	17½	@	22½
California	15	@	22½
ONIONS.			
Pickling	—	@	—
Red	40	@	60
Silverskins	50	@	75
NUTS—JOBBING.			
Walnuts, Cal., lb	13½	@	14½
do Chile	—	@	—
Almonds, hd shl	5	@	7
Soft shell	18	@	19½
Paper shell	19	@	20
Brazil	11½	@	13
Pecans	9	@	11
Peanuts	4½	@	5
Filberts	10	@	11
Hickory	7	@	8
POTATOES.			
Burbank	—	@	—
Early Rose	—	@	—
Cuffey Cove	—	@	—
Jersey Blues	—	@	—
Petaluma	—	@	—
Tomales	—	@	—
River reds	—	@	—
Humboldt	—	@	—
do Kidney	—	@	—
Chile	—	@	—
do Oregon	—	@	—
Peerless	—	@	—
Salt Lake	—	@	—
New Potatoes	50	@	75
POULTRY AND GAME.			
Hens, doz	5 50	@	7 00
Roosters	5 50	@	11 00
Broilers	3 00	@	7 00
Ducks, tame	4 50	@	6 00
do Mallard	—	@	—
do Sprig	—	@	—
Geese, pair	1 00	@	1 25
do Goslings	1 15	@	1 65
Wild Gray, doz	—	@	—
Turkeys, lb	13	@	17
do Dressed	—	@	—
Turkey Feathers, tail and wing	10	@	20
Snipe, Eng., doz	—	@	—
do Common	—	@	—
Doves	—	@	—
Quail	—	@	—
Rabbits	1 00	@	—
Hare	1 25	@	—
Venison	—	@	—
PROVISIONS.			
Cal. Bacon, Heavy, lb	8½	@	9½
Medium	9	@	10
Light	10	@	11
Extra Light	11	@	12½
Lard	8	@	12
Cal. Smoked Beef	11½	@	12½
Hams, Cal	12½	@	14
do Eastern	14	@	14½
SEEDS.			
Alfalfa	8	@	9
Canary	3½	@	4
Clover red	10	@	12
White	15	@	17
Cotton	20	@	—
Flaxseed	2	@	—
Hemp	4	@	4½
Italian RyeGrass	25	@	—
Perennial	7	@	9
Millet, German	4½	@	5
do Common	7	@	10
Mustard, white	2½	@	3
Brown	2½	@	3
Rape	1½	@	2
Ky. Blue Grass	11	@	13
2d quality	11	@	12
Sweet V. Grass	75	@	—
Orchard	20	@	25
Red Top	15	@	—
Hungarian	8	@	10
Lawn	30	@	40
Mesquit	10	@	12
Timothy	5½	@	—
TALLOW			
Crude, lb	2	@	
Refined	6	@	
WOOL, ETC.			
SPRING—1886			
Humboldt and Mendocino	21	@	26
Sact'o valley	18	@	24
Free Mountain	21	@	26
N'hern defective	—	@	—
S Joaquin valley	13	@	19
do mountain	16	@	21
Cava'v & F'tn'll	16	@	21
Oregon Eastern	18	@	25
do valley	20	@	27½
Southern Coast	11	@	18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 22, 1887

Apples, bx com	25	@	40
do choice	50	@	1 00
Apricots, bx	50	@	1 00
Bananas, bunch	2 00	@	3 25
Blackberries, ch	7 00	@	10 00
Canteloupes, cr	—	@	—
Cherries whit bx	40	@	60
do black bx	30	@	50
do Royal Ann	60	@	80
Cherry plums	20	@	45
Crabapples	—	@	—
Cranberries	10 00	@	12 50
Currants ch	2 50	@	4 00
Gooseberries lb	2½	@	7½
Figs bx	50	@	1 00
Grapes	—	@	—
do Rose Peru	—	@	—
do Muscat	—	@	—
do Tokays	—	@	—
Isabel	—	@	—
Wine, Zinfandel	—	@	—
do Mission	—	@	—
Limes, Mex	10 00	@	11 00
do Cal. box	75	@	1 50
Lemons, Cal., bx	1 50	@	2 00
do Sicily, box	4 50	@	6 00
do Australian	—	@	—
Nectarines box	—	@	—
Oranges, Com bx	1 25	@	1 50
do Choice	2 00	@	2 50
do Navels	3 00	@	4 50
do Panama	—	@	—
Peaches, bx	30	@	75
do bask	25	@	50
Crawfords, bx	—	@	—
do bskt	—	@	—
do choice	—	@	—
Pears bx	30	@	75
do choice	—	@	—
do Bartlett, bx	—	@	—
Persimmons, Jap, bx	—	@	—
Pineapples, doz	4 00	@	5 00
Pomegranates, b	—	@	—
Prunes bx	—	@	—
Quinces bx	—	@	—
Raspberries ch	7 00	@	10 00
Strawberries ch	5 00	@	9 00
Watermelons	100	@	—
DRIED FRUIT			
Apples, sliced, lb	—	@	—
do evaporated	12½	@	13½
do quartered	13	@	14
Apricots	—	@	—
do evaporated	11½	@	13
Blackberries	13	@	13½
Citron	28	@	30
Dates	9	@	10
Figs, pressed	5	@	6
Figs, loose	3	@	4
Nectarines	8	@	10
do evaporated	16	@	18
Peaches	—	@	—
do pared	—	@	—
do evaporated	—	@	—
Pears, sliced	5	@	6
do qrtd	4	@	5
do evaporated	8	@	10
Plums, pitted	9	@	10
do unpitted	3	@	5
Prunes	6	@	10
do French	8	@	12½
Zante Currants	8	@	—
RAISINS.			
Dehesa Clus, fcy	2 40	@	2 50
Imperial Cabinet, fancy	1 75	@	—
Crown London Layers, fcy	1 50	@	—
do Loose Muscatels, fancy	1 40	@	—
do Loose Muscatels	1 35	@	—
Cal. Valencias	1 25	@	—
do Layers	1 25	@	—
do Sultanas	1 25	@	—

Fractions come 25, 50 and 75 cents higher for halves, quarters and eighths.

VEGETABLES.			
Artichokes, doz	—	@	—
Asparagus bx	75	@	1 25
do ext'a choice	1 50	@	2 50
Okra, dry, lb	15	@	20
do green box	10	@	15
Parsnips, ctl	1 50	@	—
Peppers, dry lb	10	@	—
do green, lb	10	@	12½
Pumpkins per ton	—	@	—
Squash, Marrow fat, too	20 00	@	25 00
do Summer bx	50	@	1 00
String beans lb	3	@	6
Tomatoes box	40	@	1 00
Turnips ctl	25	@	60
Beets, sk	75	@	—
Cabbage, 100 lbs	75	@	1 00
Carrots, sk	35	@	—
Cauliflower, doz	—	@	—
Eggplant, lb	15	@	25
Garlic, lb	1½	@	3
Green Corn, doz	10	@	15
do sweet doz	20	@	25
do large box	—	@	—
Green Peas, lb	1½	@	3½
Sweet Peas lb	2	@	3½
Lettuce, doz	10	@	—
Lima Beans lb	—	@	—
Mushrooms, lb	8	@	20½
Rhubarb bx	75	@	1 25

DIVIDEND NOTICE.

San Francisco Savings Union,

532 California St., corner Webb.

For the half year ending with June 30, 1887, a dividend has been declared at the rate of four and thirty-two one hundredths (4 32-100) per cent per annum on term deposits, and three and six-tenths (3 6-10) per cent per annum on ordinary deposits, free of taxes, payable on and after Friday, 1st July, 1887.

LOVELL WHITE, Cashier.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.

DATE. June 16-22.	Portland. Rain	Temp.	Wind	Weather.	Red Bluff. Rain	Temp.	Wind	Weather.	Sacramento. Rain	Temp.	Wind	Weather.	S. Francisco. Rain	Temp.	Wind	Weather.	Los Angeles. Rain	Temp.	Wind	Weather.	San Diego. Rain	Temp.	Wind	Weather.
Thursday	36	58	Nw	Cy.	00	90	S	Cl.	.00	84	SW	Cl	.00	68	W	Cl	.00	96	W	Cl.	.00	76	SW	Cl
Friday	.00	60	Nw	Cy.	.00	86	N	Cl	.00	74	Nw	Cl	.00	62	W	Cl	.00	88	SW	Cl.	00	72	SW	Cl.
Saturday	.00	70	SE	Fr	.00	94	N	Cl.	.00	88	Nw	Cl.	.00	73	SW	Cl	.00	78	SW	Cl	00	68	W	Cy.
Sunday	.00	64	Nw	Cy	00	98	N	Cl.	.00	92	Nw	Cl.	00	89	W	Cl	T	76	S	Cl.	00	70	SW	Fr.
Monday	00	74	Nw	Cl	.00	100	N	Cl	00	94	W	Cl.	.00	71	W	Cl	00	78	S	Cl	.00	72	SW	Cl.
Tuesday	.00	92	NE	Cl	.00	92	NE	Cl.	.00	80	Nw	Cl	00	72	W	Cl	.00	76	W	Cl	00	68	N	Cl.
Wednesday	.00	84	Nw	Cl	.00	94	S	Cl	00	80	S	Cl	00	60	W	Fr	.00	78	W	Cl.	00	68	Nw	Cl.
Total	.36				00				.00				00				T				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; — indicates too small to measure. Temperature, Wind and weather at 12:00 M. (Pacific Standard time), with amount of rainfall in the preceding 24 hours. Note "T" indicates precipitation inappreciable.

WAKELEE'S

THE BEST IS THE CHEAPEST.



TRADE MARK.

DON'T BUY AN Inferior Article BECAUSE IT IS More Profitable to some one else

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IN 1-LB. AND 5-LB. CANS.

For Printing

Of Every Description, such as

BOOKS, PAMPHLETS, CARDS, BILLHEADS, CIRCULARS, &C., OR

BLANK BOOKS,

Made to Order from First-Class Material, Send Orders to

BACON & COMPANY,

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☞ Estimates Furnished when Desired.

HALL'S SARSAPARILLA

Cures all Diseases originating from a disordered state of the BLOOD or LIVER. Rheumatism, Neuralgia Boils, Blotches, Pimples, Scrofula, Tumors, Salt Rheum and Mercurial Pains readily yield to its purifying properties. It leaves the Blood pure, the Liver and Kidneys healthy and the Complexion bright and clear.

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Special Offer



I will ship, in localities where, as yet, I have NO AGENT, one sample No. 2 "New Becker" Washer, Improved Sept. 1, 1885, and "Empire" Wringer for trial; the party to pay for them at WHOLESALE prices and act as Agent, if found satisfactory; if not, RETURN them. Money refunded.

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The MEEKER SUN FRUIT DRIER

PRODUCES THE

Finest Quality of Fruit at the Least Cost.

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All kinds of Ladies' and Gents' Garments Cleaned and Dyed. WE EXCEL. Send for Circular of Prices.

CHAS. J. HOLMES, Manager.

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Duplicate cuts of illustrations appearing in this paper for sale by applying at this office.

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SOLE AGENT BONNET'S BLACK SILKS; SOLE Agent Demarquest Silk Velvets; Sole Agent Perinot Kid Gloves; Depot of Real India Shawls and India Silks India Shawls Repaired. Centers of Borders replaced. Depot of Real Laces. Fine Fans. Depot of Imported Suits for Ladies and Misses. Depot of Infants' Wardrobes.

☞ First-class Dressmaking Department. Special attention given to Mourning. Ready-made Suits on hand.

I take pleasure in inviting all my customers to the largest and cheapest sale of

FINE LACES

That was ever inaugurated.

Guipure and Chantilly Flounces, 42 inches deep; Net and Edge to match.

1000 pieces Torchon and Medici Laces, the finest goods imported.

Real Valencienne Laces in the finest qualities.

1000 pieces real Guipure Laces at 12½c. per yard.

Laces, Fichus, Scarfs and Nets.

The Langtry Scarf, the latest novelty, has just arrived.

1000 Cashmere Shawls, all shades, at $1 25.

500 Chedda Shawls, new shades, at $1.50.

200 Embroidered Fichus at half price.

JUST OPENED.

5 cases of French Sateens, price, 25c. per yard.

Mohair and Iron-Frame Alpaca.

Just opened, 2 cases of 6-4 and 8-4 Black Sicilians, Mohair and Iron Alpaca, the finest quality imported.

Country Orders filled promptly and carefully. Every advantage given to orders received. Goods sent C. O. D., on receipt of draft or P. O. order.

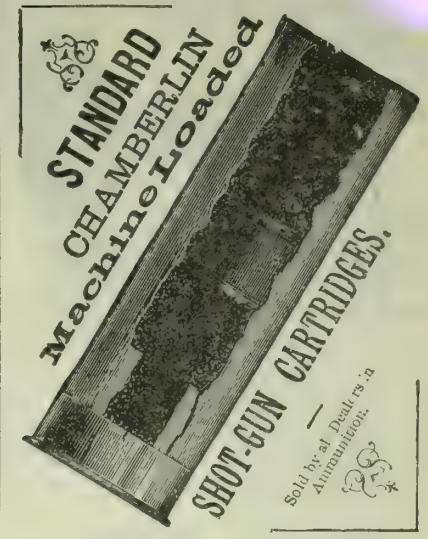
Goods sent free to Oakland, Alameda and Berkeley.

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ORANGE CULTURE A practical treatise by T. A. GAREY, giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F



HEADQUARTERS

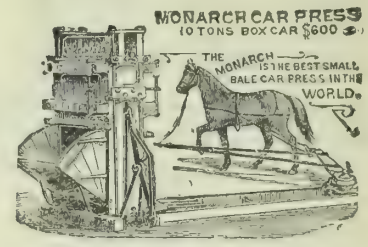
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—AND—

HAYING TOOLS.

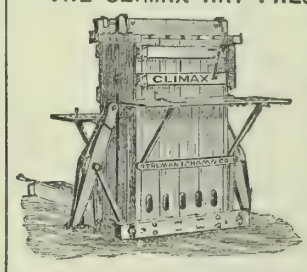
THE MONARCH, JR., HAY PRESS.



IMPROVED FOR 1887.

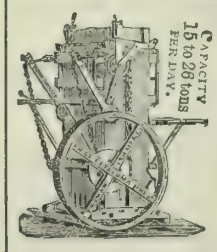
Any young man can earn more on an investment of $500 in this press than can be earned in expending $2000 for any other machine. We have a Monarch Press, which we sell for $600, but has been used a very little and is just as good as new, which we will sell for $450.

THE CLIMAX HAY PRESS. $350.



Weight, 2200 lbs. A crew of three men—four can be used to advantage.

Five ropes are used on the bales. Capacity, 10 to 15 tons per day. The best press for the money in the world.



The Celebrated Petaluma

BALING PRESS.

Weight, 2600 lbs. Price, $450, delivered at the factory.

Size of bale, 22x22x48 inches. Capacity, 26 tons per day. Weight of bale from 225 to 400 lbs. This remarkable machine still stands at the head of all vertical baling presses, and probably bales three-quarters of all the hay west of the Rocky Mountains.

Whitman's IMPROVED New Rebound Plunger.

GREATLY IMPROVED FOR 1887.



Do not confound our NEW Press with that made two years since. EVERY PRESS FULLY WARRANTED. For one or two horses. The most powerful in use. The most rapid and durable, and the most perfect. Makes the most perfect bale. The most simple to operate. Least expense for repairs. NO STOPS FOR TYING BALE.

The Greatest Success of the Age.

Victorious in every contest. Double-acting, with new concentrating power. Do not buy a Press until you have seen the IMPROVED New Whitman with concentrating power. Puts from 10 to 15 Tons in a Car.

16x18 Mounted, weight, 3600 lbs.....$400 00
18x22 Mounted, weight, 3800 lbs..... 450 00

All make bales of variable size.

Hay Forks, Hay Carriers, Harpoon Forks, and all kinds of Haying Tools in great variety. In baling your hay, use our **Steel Baling Ties.** Cheaper than Wire—Better than Rope.

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Taught thoroughly by mail. Terms reasonable. Send for circulars. Miss Barrett, 240 Montgomery St., S. F.

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ENTERPRISE

Self-Regulating

WINDMILL

Is recognized as THE BEST.



Always gives satisfaction. SIMPLE STRONG and DURABLE in all parts. Solid Wrought-iron Crank Shaft with DOUBLE BEARINGS for the Crank to work in, all turned and run in adjustable babbitted boxes.

Positively Self-Regulating.

With no cone springs, or springs of any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills, etc., kept in stock. Address,

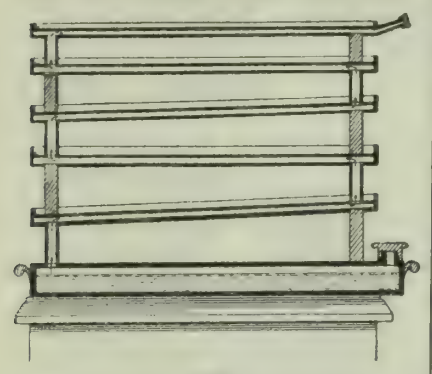
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Common Sense Evaporator

(Of NEWARK, OHIO).

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Patented 1886.

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And orders for 34,000 more. Perfection of simplicity, cheapness and rapidity of work. Thirteen Dollars will Buy a Machine that will do better work and more of it than any $50 Evaporator ever offered for sale, and in like proportion to an indefinite capacity.

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Which completely revolutionizes the dried fruit industry. All fruits perfectly cured in from one to two hours, and with

No Possibility of Burning and No Need for Sulphuring.

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Agents Wanted—Best selling invention of the age.

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EXTERMINATOR.

PATENTED MARCH 23 1886, & JUNE 8 1886.

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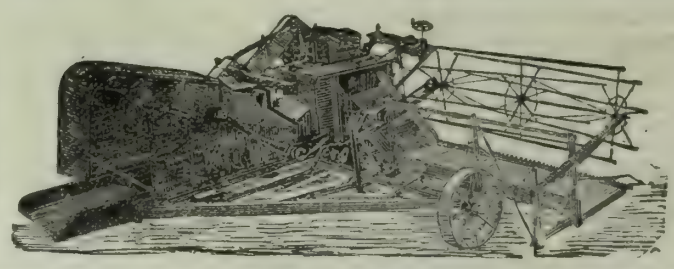
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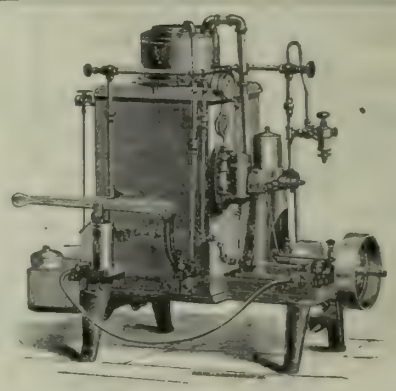
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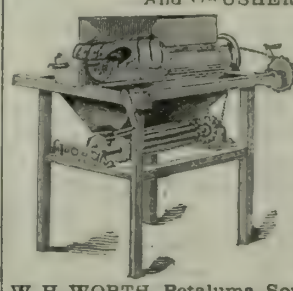
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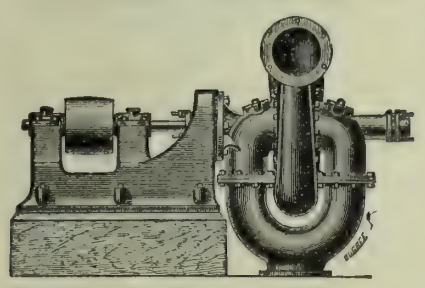
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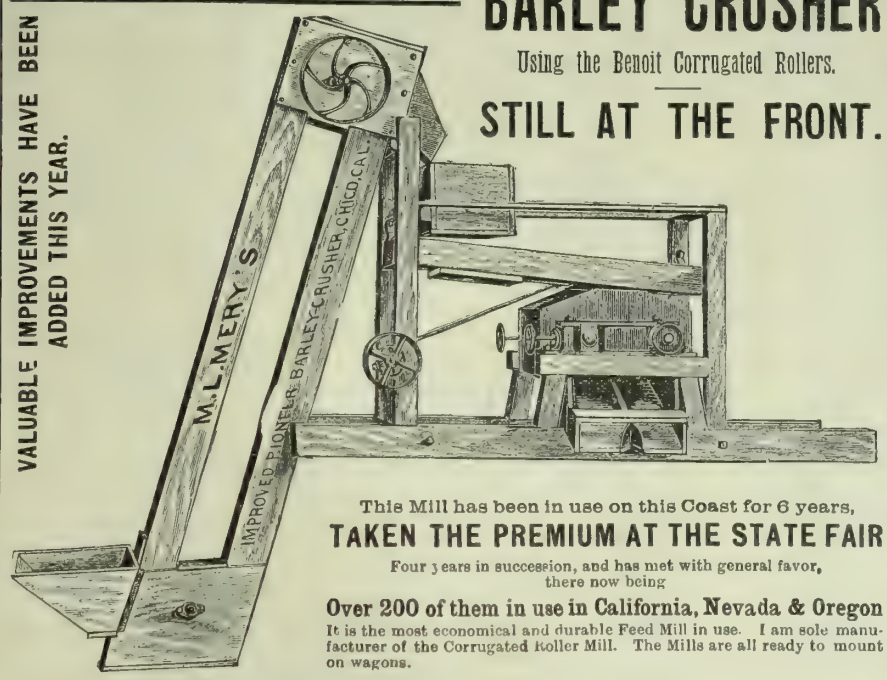
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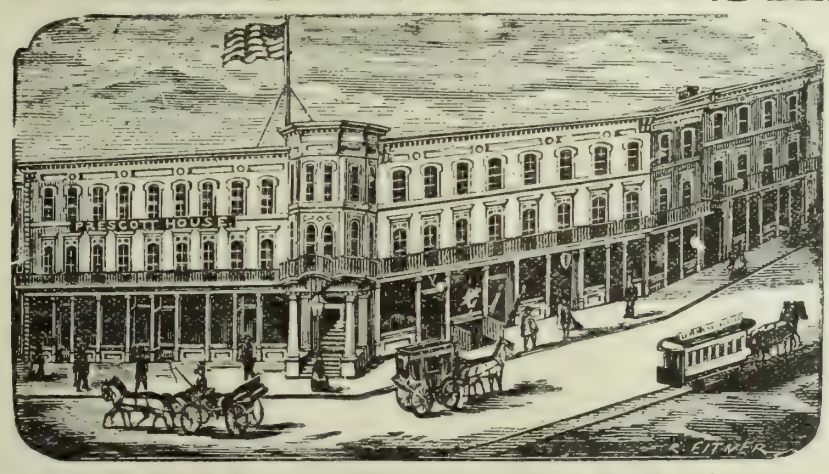


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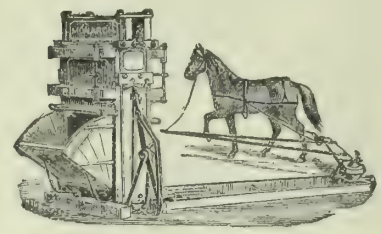
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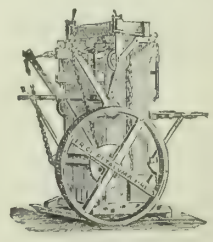


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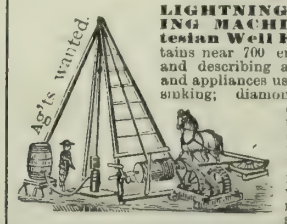
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